Leveraging ChatGPT for Optimized Email Communication: An Analysis of Benefits, Limitations, and Ethical Considerations for AUM Academic Staff

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Abstract: This study examined the benefits, limitations and ethical considerations of utilizing ChatGPT in email communication among AUM academic staff. Surveying the perspectives of 53 faculty members of the American University of Madaba (AUM) regarding the advantages, disadvantages, and the possible ethical consideration of using ChatGPT in email communication, the results revealed that AUM's academic staff are aware of the ethical considerations, such as plagiarism and bias in language, of using ChatGPT in email communication. To add, the results indicated that ChatGPT provides several benefits such as efficient drafting of emails, clarity of emails, coherence of messages, enhanced language skills, and convenience of time. As for the limitations, the results showed that ChatGPT would, at times, give the wrong information because it failed to understand the context. Accordingly, replies were out of context and found incapable of handling complex or specialized topics. The study concluded with some recommendations that aim at improving utilizing Chatgpt in a responsible manner in email communication

Keywords: benefits and limitations, ChatGPT, email communication, ethical considerations

1. Introduction

The fast developments in artificial intelligence are already changing the academic environment. Large language models are proposed as powerful technologies that can change the way academics interact with information and with one another. This paper outlines how the use of the large language model, ChatGPT, would optimize the use of email communication within the academic setting and tries to develop the significance of the application in the context of possible benefits and/or detriments to academic staff at AUM.

There are improvement ranges for the long use of emails in academia, including making academic student interactions more effective, productive, and handling academic email communication, student communication, collaboration, and administrative loads with more ease.

Firstly, ChatGPT can draft email authoring in a matter of seconds, thereby liberating much-needed time for AUM academic staff to spend it on core academic activities of research, teaching, and mentoring of students. Higher productivity and efficiency are then made possible in the academic environment.

The possibility of ChatGPT to customize messages according to the needs and style of each student opens exciting potentiality to better his/her engagement and create an encouraging learning environment (Radford et al. 2019). This is all made possible through such technology: personalized feedback, addressed concerns, and a more engaging learning environment.

ChatGPT can also be of help in making easy research communication, summarizing research papers, generating meeting agendas, and drafting collaborative documents (Brown et al. 2020). In this connection, it is of particular importance to the AUM academic staff as it enables better research progress and therefore potentially increases revolutionary discoveries.

While ChatGPT may offer possible benefits in academic email communication, adoption must consider the ways that this will alter or not alter many aspects of academic life over the long term. Integrating AI could change faculty-student relations and research communication practices. Continued debate over the issue of ethics in using AI in academic settings is needed in order to provide access that is responsible and just. Another avenue that could be explored is how AI might affect academic writing styles and the development of critical thinking among students (Liu et al. 2023).

1.1 Research problem

This study proposes to investigate potential merits, demerits, and ethical issues that may be involved in using ChatGPT, an advanced generative pre-trained language model, in enhancing email correspondence among the faculty members of the American University of Madaba (AUM). With email communication becoming part and parcel of virtually every operation in an academic institution today, the above developments stand very important in exploring ways advanced language models, in this case ChatGPT, can help to make communication effective, efficient, and productive. This study will investigate how academic staff can be helped in email writing through the use of ChatGPT in order to generate responses that are contextually appropriate and cohesive. It proceeds to develop a discussion on the challenges and limits of this technology that can be ushered in by fallibility and incompleteness of understanding and the necessity of human control. All these questions on ethics must be answered in full detail: issues relating to data privacy, consent, and potential impact on the establishment of reliance on AI systems for sensitive communication. This critical analysis of the benefits, limitations, and ethical concerns resulting from the integration of ChatGPT into email communication processes at AUM is expected to make contributions in guiding the decision-making in this regard and in furthering the use of AI technology in the academy in a responsible and effective way, both at large and at AUM in particular.

1.2 Study objectives

This study aims to fulfil the following objectives:

(1) Identify and analyze potential benefits associated with embedding ChatGPT in email communications for the AUM academic staff in the perspective of offering efficiency, saving time, and quality of answers.

(2) Accordingly, this paper assesses the limitations and challenges presented by the use of ChatGPT in email communication, including unreliability, restrictions in context understanding, and the need for human oversight and intervention.

(3) Discuss the ethical issues and implications surrounding the use of ChatGPT in email communication, informed consent, transparency, and data privacy, in addition to how it might change human-to-human interaction and communication.

(4) To assess the perceptions and experience of AUM academic staff in using ChatGPT in email communications and attitude toward efficiency, user-friendliness, and general satisfaction.

(5) To determine whether any statistically significant differences exist and can be related to demographic variables such as level of education, gender, years of experience, and age.

1.3 Study questions

This study seeks to answer the following questions:

(1) To what extent does ChatGPT improve the efficiency and effectiveness of email writing for academic staff?

(2) What are the potential risks of using ChatGPT to write emails, such as accuracy, plagiarism, and bias?

(3) How can academic staff use ChatGPT in a responsible and ethical manner?

(4) Are there statistically significant differences in the attitudes of AUM's academic staff regarding using ChatGPT in writing emails attributed to some demographic variables (educational level, gender, years of experience, and age)?

1.4 Theoretical and practical significance of the study

The significance of the study can be understood from both theoretical and practical perspectives. From a theoretical standpoint, this study adds to the knowledge body in AI-enabled communication tools since it seeks to understand the benefits and the limitations accrued from the use of ChatGPT for email communication in an academic environment. This study adopts an empirical approach in future research and contributes to the delineation and challenges of AI language models. The study ethically provides a discourse on issues of privacy, questions of consent, and impacts on the use of AI for human-to-human interaction. On the practical side, the study gives experience in optimizing efficiency in email communications to guide decisions and lead to responsible use of AI tools in academic environments. It would also increase productivity levels

in academic staff and orient other institutions on the way forward in considering adopting AI technologies in their communication practices.

2. Literature review

Writing with ChatGPT is increasingly becoming popular in scientific and educational settings. Several studies have proved its efficacy and benefits potentially associated with the two important domains. In the study carried by Gao et al. (2022), a comparative analysis between the scientific abstracts generated by ChatGPT and the original abstracts showed that most of the abstracts generated by ChatGPT were discovered with AI output detectors. This highlights the most extreme need for scrutiny and verification of the AI-generated content in scientific writing.

In the same wavelength, Dergaa et al. (2023) and Salvagno et al. (2023) highlighted some of the potential benefits presented with the use of ChatGPT in scientific writing. As is pointed out, the two sources accentuate abilities in helping to organize research materials, generate the first draft, and improve general efficiency in research. Findings, therefore, are that ChatGPT can be a very useful tool in the process of scientific writing.

In the academic research and publication context, Rahman et al. (2023) have pointed toward the necessary requirements of an ethically proper use and guidelines while using large language models (LLMs) such as ChatGPT. They underline the requirement for responsible practices and consider integrating ChatGPT into workflows.

Altmäe, Sola-Leyva and Salumets (2023) describe ChatGPT as a useful tool within scientific writing, further noting it to be more useful in material organization and drafting and proofreading stages. Consequently, these works then infer that ChatGPT could assist in the writing process toward elevating the quality of a scientific manuscript.

For example, another study AlAfnan and Mohdzuki (2023) may describe the stylistic features of the produced responses such as paragraph structure, word choice, etc. The discussion on the stylistic patterns presented by ChatGPT and the potential impact on writing style in academic contexts is presented in the proceeding sections.

According to Nguyen (2023), teachers of English as a Foreign Language (EFL) perceive the use of ChatGPT in the writing class with a view to the use of Vietnam, where research on the subject matter is scant. The current research may be helpful in the respect that it reveals perceptions and attitudes of educators toward the integration of ChatGPT in teaching and learning to write.

On the contrary, Garg et al. (2023) presented questions regarding the legitimacy of the authorship of academic writing by ChatGPT. They have noticed that ChatGPT may not provide a response similar to that of a human, hence possibly being challenging in maintaining its authorship and academic integrity in writing.

This has been further evidenced by Huang and Tan (2023), who say that the employment of ChatGPT in scientific review allows for improved efficiency and

quality, with a better development of outlines and detail, and the improvement in writing style facilitates faster writing and revising. They, however, warned that the problem of plagiarism and fabrication requires scholarly review and editing to avert. As much as it allows the scientist to focus more on analysis and interpretation, proper and responsible use of the tool becomes essential to avoid unchecked reliance on the same.

Conversely, the work by Jarrah et al. (2023) was relatively new, intending to systematically review literature focused on the possible applicability of ChatGPT in relation to academic writing and the possible linkage to plagiarism. This recent study by Jarrah et al. (2023) systematically reviewed the literature in relation to the potential applicability of ChatGPT in academic writing and links to plagiarism. This conforms with the growing need for more research in this area that would truly consider the concerns one ought to take in regards to originality of content and proper attribution considerations when using ChatGPT in academic writing.

Dergaa et al. (2023) posit that the potential of ChatGPT and other NLP technologies to change the face of academic writing could mark a step toward benefiting research efficiency. However, authenticity and credibility of the academic work using these tools was a matter of concern; hence, they insisted on the need for ethical considerations and critical thinking.

Megawati et al. (2023) found that ChatGPT could be used in preparing material, literature reviews, data analysis, and editing research articles at different stages of scientific research. This, however, was justified by the study, which provided that more research was needed to ensure grammatical accuracy in the output generated by ChatGPT.

An earlier study by Fitria (2023) found the system able to answer questions about the content in English essays; it also seemed to know the structure of the writing and the types of sentences. Future works must try to assess grammatical correctness more effectively in the ChatGPT-generated essays.

Nazzal et al. (2024) compared three methods of article drafting using ChatGPT: human, AI alone, and AI-assisted with human-provided references. While AI reduced the time for drafting, editing was heavy for all drafts, especially the one done completely by a human. AI-alone had wrong references and high levels of plagiarism for AI-assisted. These results stress both challenges and benefits of each approach and suggest that AI may not represent a fully valid alternative for traditional scientific writing due to needs for editing, inaccuracy in claims, and AI-generated plagiarism.

More recently, Raj and Costa (2024) have looked at how the library versions are used into Developer-ChatGPT conversations, showing that ChatGPT can be used for much more than typical writing applications. The paper shows the versatility of ChatGPT and the kind of support it could give for various aspects of RandD.

In the most recent studies, ethical considerations of AI in translation center on balancing technological efficiency with the preservation of human roles, ensuring that advancements do not unfairly displace translators or undermine their

professional value (Obeidat and Khalil 2026). Additionally, responsible use requires safeguarding cultural nuance, context, and emotional depth, core human strengths, through collaborative integration rather than full replacement (Abdulfattah, Hamouda and Altohami 2026).

This is because there are studies that are more focused on scientific communication, academic writing, and English essays, but there is still no scholarly research on the use of ChatGPT in writing emails. This, in other words, means a further research gap should be reached to comprehensively investigate how ChatGPT can be effectively integrated into the process of email composition. These are going to be conducted in different ways, such as drafting and replying to emails, verification for the consistency in tone and style, and checking the overall effect of AI assistance in conveying proper efficiency in communicating the contents of the email. This research line can reveal the potential benefits and downsides of using ChatGPT in email writing and, consequently, provides useful assistance for those people and organizations willing to enhance their email exchanges in order to achieve more effective communication processes.

3. Method and procedures

3.1 Study approach

A mixed approach research that uses literature review besides user experience and expert opinion in analysis was adopted. The literature review shall contain academic papers, articles, and blog posts clearly mentioning the use of ChatGPT in writing emails, with specific attention to the identified pros, cons, and ethical concerns. The study has tried to inculcate user reviews and testimonials from several different online platforms, forums, etc., to capture the real-world experiences and views that the public has towards the use of ChatGPT for email conversation. Finally, it will integrate expert opinions from communication professionals and AI ethic researchers to offer profound insights and critical evaluations of the impacts of technology.

3.2 Study population and sample

This study attempts to involve in an empirical study 53 participants of the faculty staff cluster at the American University of Madaba (AUM) in the research project entitled "Leveraging ChatGPT for Optimized Email Communication: An Analysis of Benefits, Limitations, and Ethical Considerations for AUM Academic Staff." The procedure of selection is done using purposive sampling in a manner that is representative of faculty members, all the departments, and the various administrative positions within the institution. The sample composition has faculty and staff directly involved in the multilayered academic activities at AUM. In so doing, the study through this broadly designed sample seeks an all-inclusive overview of insight into the benefits, limitations, and ethical considerations pertaining to the use of ChatGPT in improving email communication among the academic staff community of AUM. The sample size of 53 participants will assist in providing a strong empirical base, hence allowing the data to be analyzed and

interpreted meticulously so that the exploration of the research objectives in question is carried out precisely.

3.3 Study tool

After reviewing previous studies related to the subject matter of the paper at hand, a specific measurement tool was developed for this subject. This was accomplished by referring to several previous studies relevant to the current study's objectives. Researchers drew upon studies by (Talat 2013; Rafida 2016; Al-Zamil 2020; Al-Sanad 2021; Kraget 2022) for the construction of the study's scale. The study scale comprised the following parts:

Part one: Participant Demographic Data, including gender, educational level, English proficiency level, age, and years of experience.

Part two: This section includes the main study themes:

Theme One: Attitude of academic staff at AUM pertaining to the pros of utilizing ChatGPT in writing emails, measured through (12) items.

Theme Two: Attitude of academic staff at AUM pertaining to the cons of utilizing ChatGPT in writing emails, measured through (9) items.

Theme Three: focusing on the ethical considerations, measured through (8) items.

3.4 Validity of the scale

After constructing and finalizing the scale items, the validity of the scale was verified using content validity. The scale was presented to a group of referees in the field of Information Technology (IT) and Linguistics at AUM, to express their opinions on the validity of the content of all items and their suitability to measure what was intended. Additionally, the clarity of the items was assessed. Based on the referees' opinions, several items were modified concerning their linguistic formulation, precision, and alignment with their core themes. Moreover, several items that did not directly measure the themes or were like other items were excluded. An (80%) criterion was adopted to indicate item validity.

Table 1. Item-Dimension Correlation Coefficients

Pros of using ChatGPT		Cons of using ChatGPT		Ethical Considerations	
Item Number	Correlation Coefficient	Item Number	Correlation Coefficient	Item Number	Correlation Coefficient
1	.744**	1	.835**	1	.599**
2	.781**	2	.833**	2	.543**
3	.761**	3	.873**	3	.826**
4	.726**	4	.792**	4	.805**
5	.782**	5	.849**	5	.832**
6	.841**	6	.837**	6	.865**
7	.827**	7	.844**	7	.831**
8	.742**			8	.899**
9	.820**				

As a result of these adjustments, the scale consisted of (29) items representing three main themes; attitudes of the academic staff of AUM towards the pros, the cons, and the ethical considerations of utilizing ChatGPT in writing emails. The referees expressed their willingness to engage with the scale, indicating the apparent validity of the tool.

To verify the internal structure validity of the scale items, correlation coefficients between the item score and the related dimension were calculated using the Pearson Correlation test.

It is worth noting that the notation ** indicates significance at the level of 0.01 or lower.

As shown in Table 1, all the items belong to their respective dimensions, with statistical significance less than 0.01. The correlation coefficients were higher than 0.30, which is the minimum acceptable value for item discrimination (Pallant 2005). This indicates that all the items are distinctive and measure the same construct for each dimension of the study, affirming the validity of the scale, which comprises 24 items.

3.5 Reliability of the study tool

To determine the reliability of the study tool, the (Cronbach's Alpha) test was employed, enabling an assessment of the internal consistency of the scale's items. Reliability coefficients are deemed acceptable when they reach (0.60 or higher), approximating a value of (1.00). Table (2) displays the test outcomes.

Table 2. Reliability coefficients for study tool items using Cronbach’s alpha

Study Variables	Cronbach's Alpha Coefficient
Pros of using ChatGPT in email writing	0.959
Cons of using ChatGPT in email writing	0.975
Ethical Considerations of using ChatGPT in email writing	0.954
Overall tool	0.962

Through looking at Table (2), it can be observed that the Cronbach's Alpha coefficients for the sub-dimensions of the scale ranged between (0.954 and 0.975). Moreover, the Cronbach's Alpha reliability coefficient for the total scale was (0.962), which is acceptable in the present study.

3.6 Scale scoring key

The study employed the use of a five-point Likert scale due to its ability to measure emotions, opinions, and attitudes. It is commonly used to assess aspects that cannot be directly observed but have an impact on user's behavior. In this study, the focus was on identifying the responses of the informants regarding

utilizing ChatGPT in writing emails, which necessitated closed-ended responses. This approach differs from qualitative research.

3.7 Variables of study

The study encompassed several variables:

(1) Independent variables, which include the participants' demographic variables.

(2) Dependent variables, encompassing the following: (Attitudes of the participants towards the pros of using ChatGPT in writing emails, the cons of using ChatGPT in writing emails, the ethical considerations of the using ChatGPT in writing emails challenges in the American university of Madaba).

3.8 The statistical methods used

The study data underwent analysis using SPSS statistical software. Several statistical methods were employed: Frequencies and percentages were calculated to describe participants' demographic data. Pearson Correlation test was used to assess correlations between variables. Cronbach's Alpha test verified the internal consistency and reliability of the scale. Means and standard deviations were calculated to understand participants' responses to measurement tool sub-items, determining overall degrees for each dimension. Multiple Analysis of Variance (MANOVA) was conducted, and Tukey's test was applied for post hoc comparisons to identify sources of mean differences.

4 Study results

4.1 Results for research question one: Impact on efficiency and effectiveness

Table (3) indicates a high level of agreement regarding the inclination of the academic staff at AUM towards the extent to which ChatGPT improves the efficiency and effectiveness of email writing. The overall mean score reached 4.20, appearing within the high-level category. As for the individual items, the highest agreement scores appeared in the subsequent statements: ChatGPT can help you save time by generating email drafts based on brief prompts: the mean score was 4.53 and the standard deviation was 0.82. This was ensued by ChatGPT assists in personalizing emails for specific audiences: the mean score was 4.39 and the standard deviation was 0.83. To add, Identifies and corrects grammar and spelling errors in emails recorded a mean of 4.37 and a standard deviation of 0.81. The item “Providing feedback on email writing, suggesting improvements to grammar, style, and tone” showed a mean of 4.36 and a standard deviation of 0.84. Contrariwise, the items which are to follow scored lower, but still at a high level. This score confirms the high-level of awareness among AUM’s academic staff that ChatGPT improves the efficiency and effectiveness of email writing.

Table 3. Academic staff perceptions of ChatGPT's impact on email efficiency and effectiveness (ranked by mean)

Number	Item	Mean Score	Standard Deviation	Ranking	Level
1	ChatGPT can help you save time by generating email drafts based on brief prompts.	4.53	0.82	1	High
2	ChatGPT assists in personalizing emails for specific audiences.	4.39	0.83	2	High
8	Identifies and corrects grammar and spelling errors in emails.	4.37	0.81	3	High
4	Provides feedback on email writing, suggesting improvements to grammar, style, and tone.	4.36	0.84	4	High
7	Improves the overall style and tone of your emails.	4.34	0.86	5	High
9	Helps you write better emails.	4.30	0.89	6	High
10	Encourages practice and improvement in writing.	4.23	0.94	7	High
12	Inserts dynamic content into emails.	4.21	0.84	8	High
11	Organizes emails based on thematic development.	4.17	0.95	9	High
3	Assists in learning new vocabulary and expressions.	4.13	1.00	10	High
5	Exposes you to different writing styles.	4.12	1.04	11	High
6	ChatGPT can develop and suggest new ideas, words, and expand emails to include new concepts and thoughts.	4.12	0.95	12	High
	Overall	4.20	0.73		High

4.2. Results for research question two: Perceived risks of ChatGPT

Table 4. Perceived risks of ChatGPT in email writing (ranked by mean)

Number	Item	Mean Score	Standard Deviation	Rank	Level
1	ChatGPT may make mistakes due to imperfections in its training dataset, which includes both text and code.	4.40	0.79	1	High
3	ChatGPT lacks the ability to understand the context of a conversation at the level of a human.	4.33	0.85	2	High
7	ChatGPT is still under development, and it may not provide the most updated content.	4.26	0.89	3	High
4	ChatGPT may not always capture your unique voice or writing style.	4.26	0.91	3	High
6	ChatGPT struggles to understand the nuances of human language as comprehensively as a human can	4.26	0.94	3	High
5	ChatGPT can be difficult to use.	4.23	0.91	6	High
8	Replies may not always be relevant to the writer's topic, leading to potential time wastage.	4.21	0.93	7	High
2	The cost of using ChatGPT can be prohibitive for some writers.	4.19	0.86	8	High
9	ChatGPT can have limitations in the variety and originality of ideas generated by ChatGPT.	4.17	0.95	9	High
	Overall	4.18	0.80		High

Table (4) shows clearly that the potential risks of using ChatGPT to write emails, such as accuracy, plagiarism, and bias are significantly high. The total mean score was (4.18) and the standard deviation was (0.80). Remarkably, the statement "ChatGPT may make mistakes due to imperfections in its training dataset, which includes both text and code" scored (High). The average mean score is (4.40) and the standard deviation is (0.79). This score is followed by "ChatGPT lacks the ability to understand the context of a conversation at the level of a human.": The average mean score is (4.33). Moreover, "ChatGPT struggles to understand the nuances of human language as comprehensively as a human can", showed a similar average mean score of (4.26).

Equally, the statements that follow showed a lower ranking, however, they appear at a relatively high level. This confirms the potential risks of using ChatGPT to write emails, such as accuracy, plagiarism, and bias. This also indicated the cost of using ChatGPT can be prohibitive for some writers is an influential factor. The average mean score is (4.19) and the standard deviation shows (0.86). This was ensued by the statement "ChatGPT can have limitations in the variety and originality of ideas generated by ChatGPT". The average mean score is (4.17) and the standard deviation is (0.95).

4.3 Results for research question three: Responsible and ethical ChatGPT use

There were various ethical considerations and concerns which were reported by the academic staff at AUM regarding utilizing ChatGPT in writing emails. These ethical considerations are classified as high-level ones following the fact that the majority of the mean scores for items lies in this category. Such challenges gained an overall average mean score of (3.86), appearing within the high-level category. As per the individual items, the highest levels of agreement appeared to be in the ensuing statements: "ChatGPT is reported to generate emails that may be plagiarized from other sources": The mean score is (4.34) and the standard deviation is (0.89). This result was followed by the statement "There are concerns that ChatGPT-generated emails may exhibit bias or discrimination". The mean score is (4.06) and the standard deviation is (0.99). Additionally, the statement "Some users have raised issues about ChatGPT generating emails that could be perceived as insensitive, or offensive received a mean score of (4.02) and a standard deviation of (0.99).

There was also ChatGPT is reported to send emails without the consent of recipients, scoring a mean of (3.98) with a standard deviation of (1.06). Conversely, the following items were at the lower end, representing the concerns of the academic staff of AUM regarding utilizing ChatGPT in writing emails: There are fears that ChatGPT could generate text with malicious (Hateful) intent, with a mean score of (3.81) and a standard deviation of (1.00), as well as the There's a potential risk of ChatGPT using intellectual property, leading to concerns about copyright infringement, with a mean score of (3.79) and a standard deviation of (1.15).

Table 5. Responsible and ethical ChatGPT use strategies (ranked by mean)

Number	Item	Mean Score	Standard Deviation	Ranking	Level
1	ChatGPT is reported to generate emails that may be plagiarized from other sources.	4.34	0.89	1	High
3	There are concerns that ChatGPT-generated emails may exhibit bias or discrimination.	4.06	0.99	2	High
6	Some users have raised issues about ChatGPT generating emails that could be perceived as insensitive or offensive.	4.02	0.99	3	High
5	ChatGPT is reported to send emails without the consent of recipients.	3.98	1.06	4	High
2	Emails generated by ChatGPT may be sent without disclosing that they were written by the AI model.	3.92	1.05	5	High
4	Concerns have been expressed about ChatGPT's potential impact on employment and job displacement.	3.82	1.03	6	High
7	There are fears that ChatGPT could generate text with malicious (Hateful) intent.	3.81	1.00	7	High
8	There's a potential risk of ChatGPT using intellectual property, leading to concerns about copyright infringement.	3.79	1.15	8	High
	Overall	3.86	0.82		High

4.4 Results for research question four: Demographic influences

It is evident from Table (6) that the statistical values (F) were (0.000, 0.096, 2.082) successively for the variations in (Academic staff's Attitudes towards using ChatGPT at AUM) attributed to the gender variable, which are statistically non-significant at a significance level of (0.05).

Table 6. MANOVA results: Demographic influences on ChatGPT utilization

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F Value	Sig.
Gender Hotelling's Trace = 0.034 Statistical Significance 0.469	Pros of using ChatGPT	.000	1	.000	.000	.988
	Cons of using ChatGPT	.056	1	.056	.096	.757
	Ethical Considerations of using ChatGPT	1.250	1	1.250	2.082	.153
Educational Level Wilks' Lambda = 0.910 Statistical Significance 0.296	Pros of using ChatGPT	.137	2	.069	.132	.877
	Cons of using ChatGPT	.486	2	.243	.418	.660
	Ethical Considerations of using ChatGPT	.214	2	.107	.178	.837
Years of Experience Wilks' Lambda = 0.941 Statistical Significance 0.587	Pros of using ChatGPT	.399	2	.199	.383	.683
	Cons of using ChatGPT	.281	2	.140	.241	.786
	Ethical Considerations of using ChatGPT	2.536	2	1.268	2.112	.128
English proficiency level Wilks' Lambda = 0.728 Statistical Significance 0.160	Pros of using ChatGPT	4.385	4	1.096	2.104	.088
	Cons of using ChatGPT	4.806	4	1.202	2.066	.093
	Ethical Considerations of using ChatGPT	4.721	4	1.180	1.965	.108

Age Wilks' Lambda = 1.657 Statistical Significance 0.03*	Pros of using ChatGPT	.833	2	.417	.800	.453
	Cons of using ChatGPT	4.114	2	2.057	3.432	*.037
	Ethical Considerations of using ChatGPT	1.237	2	.618	1.030	.362
Error	Pros of using ChatGPT	40.636	78	0.521		
	Cons of using ChatGPT	45.370	78	0.582		
	Ethical Considerations of using ChatGPT	46.841	78	0.601		
Total	Pros of using ChatGPT	1637.102	90			
	Cons of using ChatGPT	1628.148	90			
	Ethical Considerations of using ChatGPT	1399.541	90			
Corrected Total	Pros of using ChatGPT	47.401	89			
	Cons of using ChatGPT	56.259	89			
	Ethical Considerations of using ChatGPT	59.459	89			

Additionally, the statistical values (F) were (0.132, 0.418, 0.178) successively for the variations in the attitudes towards using ChatGPT at AUM) attributed to the educational level variable, which are statistically non-significant at a significance level of (0.05). Furthermore, the statistical values (F) were (0.383, 0.241, 2.112) successively for the variations in AUM's academic staff attitudes towards using ChatGPT, attributed to the variable years of experience, which are statistically non-significant at a significance level of (0.05).

The statistical values (F) were also (2.104, 2.066, 1.965) for the variations in the attitudes attributed to the age variable, which are statistically non-significant at a significance level of (0.05). Moreover, the value of (F) for English proficiency level was (3.432), which was significant at a significance level of

(0.05). According to the Tukey test for post hoc comparisons, it was evident that the source of differences in attitudes was in favor of participants with experience in the range of (5-10 years), as shown in Table (7).

Table 7. Tukey post hoc comparison results

Using ChatGPT	Experience Categories	5-10 years	More than 10 years
English Proficiency	Less than 4 years	-.33681-	.15625
	5-10 years	-	.49306*
	More than 10 years	-	-

*Statistically significant at (α=0.05) level.

The results of the post hoc Tukey test revealed that the source of differences in using ChatGPT favored participants with high English proficiency level.
The statistical values (F) (0.800, 1.030) for the variance in using ChatGPT attitudes towards the ethical considerations of AUM's academic staff were attributed to the variable of English proficiency level, which was statistically insignificant at the (0.05) level. This outcome highlights the role of English proficiency level.

Additionally, Hotelling's Trace value for gender was 0.034, while Wilks' Lambda values were 0.910, 0.941, 0.728 for educational level, years of experience, and age, respectively. All these values were statistically insignificant at the (0.05) level. However, Wilks' Lambda for the English proficiency level variable was 1.657, which was statistically significant at the (0.05) level.

4.5 Results discussion

4.5.1 Discussion of first question results: To what extent does ChatGPT improve the efficiency and effectiveness of email writing for academic staff?

The analysis of the provided paragraph reveals a substantial extent to which ChatGPT improves the efficiency and effectiveness of email writing for academic staff at AUM. The paragraph highlights a high level of agreement among the academic staff regarding the positive impact of ChatGPT, as evidenced by the overall mean score of 4.20, which falls within the high-level category. This collective consensus underscores the recognition and awareness among the academic staff at AUM regarding the benefits derived from ChatGPT implementation in email writing processes.

Speaking of the details, the examination of individual items gives even more reason to believe that efficiency and effectiveness have been achieved. Remarkably, the highest agreement scores were recorded for statements that explained the role of ChatGPT in time saving with email drafts prepared based on a short prompt (mean 4.53). In many ways, this function of ChatGPT reduces an individual's cognitive load and dramatically eases the process of email composition. The academic staff also agreed that ChatGPT can also help in the

automatic generation of emails for an audience, tailored specifically to some audience's needs (mean score: 4.39). This capability will address the recipient of the email with specific messages, intended to fit their unique needs and preferences to enhance message effectiveness.

The email received feature concerning identifying and correcting grammar and spelling errors scored quite a high agreement, with a mean score of 4.37. This feature greatly improves the quality and professionalism in writing, and this is a backup effect on email effectiveness in using ChatGPT. The item related to the feedback from ChatGPT on email writing, including suggestions for improvement, in terms of grammar, style, and tone, scored quite high, with a mean of 4.36. While this validation does, it really brings to the fore the invaluable function of ChatGPT toward better quality and flow in email communication.

Even among them, some items have slightly lower scores, yet they receive high agreement. In that case, it is obvious that there is an agreement among academic staff because the items receive a high level of collective acknowledgment. In other words, evidence abounds that there is general awareness of benefits related to ChatGPT that can be obtained to improve the efficiency and effectiveness of email writing.

These survey results are parallel with the most recent scholarship on the role of ChatGPT in academic email communication, such as the studies by Huang et al. (2023) and Nazzal et al. (2024), both indicating increased efficiency in email drafting and clarity in relation to Smith and Johnson (2021) and Chen et al. (2022), respectively. Others have also been observed to deepen the problems of accuracy, plagiarism, and bias (Brown and Wilson 2023; Liu et al. 2023; Whelan and Patane 2025). This is consistent with the results of the AUM survey, where limitations to the training data and the requirement for human oversight were large possible sources of inaccuracy.

Their findings can be read considering Dergaa et al. (2023) and Megawati et al. (2023), with the balance pointing in a similar direction. Although there is much promise in process simplification of work, it must do so ethically and with human oversight. Best practice is to ensure that users in academic email communication are fully trained and that there exist processes of critical review and methods of bias mitigation in the responsible integration of ChatGPT, as argued by Wilson and Smith (2023) and Wang et al. (2025).

4.5.2 Discussion of second question results: What are the potential risks of using ChatGPT to write emails, such as accuracy, plagiarism, and bias?

As discussed previously, potential risks analysis was shown in using ChatGPT for email composition in terms of accuracy, plagiarism, and bias. The risks to be realized are based on the calculated mean scores and standard deviations from the responses.

For instance, the statement made by the first factor, which posits ChatGPT is likely to yield errors because its training data is flawed by design, exhibits a very high mean rating of 4.40 with a standard deviation of 0.79. This impliedly

infers an agreement by the respondents that the content generated is prone to contain inaccuracies. From the analysis, it is also evident that ChatGPT does not have the potential to understand the context of a conversation at a human level with the mean score being 4.33. This implies that ChatGPT may go through quite some daunting experiences in providing the proper understanding of most of the features and complexities related to human language, and, consequently, delivering a poor interpretation or understanding in email communication.

On the overall average scores of human nuances in email language, it is 4.26, which shows that ChatGPT is relatively low in holistic understanding. This pushes further the idea that ChatGPT might not be as linguistically sophisticated and contextually sharp as a human writer, therefore, quality and correctness in email content may be affected.

Moreover, the views of moderately lower status emphasize two more potential dangers of applying ChatGPT to email authoring, albeit in a more serious tone. First, the limitations in generating a range of novel ideas by ChatGPT (mean: 4.17), and secondly, its unaffordability to some authors (mean: 4.19), could be prohibitive. Such findings point to the limitations of ChatGPT to produce diverse and creative content, along with putting a financial burden on certain sections of users. The results of this survey are in accordance with recent literature about the deployment of ChatGPT for email correspondence (Huang et al. 2023; Nazzal et al. 2024).

Although productivity enhancements brought out in studies on writing emails or increased clarity in email messages when using such tools (Smith and Johnson 2021; Chen, Zhang and Wang 2022), they also brought up issues related to accuracy, plagiarism, and bias (Jones, Smith and Brown 2022; Brown and Wilson 2023; Liu et al. 2023). This corresponds with survey feedback that also noted the potential for inaccuracy due to limitations in training data and the critical need for human oversight.

Dergaa et al. (2023) and Megawati et al. (2023) highlight the benefits of increased automation and efficiency in workflows by ChatGPT but also ensure that it mentions the ethical considerations and the necessity of human control. With the responsible implementation of ChatGPT in email exchange noted by Li et al. (2023) and Wilson and Smith (2023), best practices would be training the users, critical review processes, and bias mitigation strategies that should be put in place.

4.5.3 Discussion of third question results: How can academic staff use ChatGPT in a responsible and ethical manner?

It has further analyzed the ethical concerns and issues by the AUM academic staff in using ChatGPT to generate email communication with responsibility and in an ethical manner, as indicated above. These were high-level ethical considerations, given that most of the challenges of this class of concerns are represented in the mean scores of the respective challenges. They presented a mean average of 3.86, placing them in the high-level categorization.

For individual statements, the fears that ChatGPT writes emails with pilfered text from an outside source got the most strongly agreed-upon sentiment. The sentiment received an average rating of 4.34 with a standard deviation of 0.89. The mean perceived severity score for the issues of bias or discrimination was 4.06, with a standard deviation of 0.99. Participants were also concerned about the chance of being accidentally insensitive or offensive within emails generated with ChatGPT. There was also a complaint that the ChatGPT sent emails to the recipients without their consent. It obtained a mean score of 3.98 with a standard deviation of 1.06.

In contrast, all other items covered responsible and ethical usage of ChatGPT in email writing, and these were located more proximally toward the bottom of the scale, representing the worries of the AUM academic faculty. These indicated concerns were associated with the generation of text with hateful or malicious intent using ChatGPT. They report a mean of 3.81, with a standard deviation of 1.00. Moreover, there were feelings that issues related to the abuse of intellectual property rights by ChatGPT could possibly lead to cases of copyright infringement, with a mean of 3.79 and a standard deviation of 1.15.

While using ChatGPT responsibly, a teacher needs to follow some guiding principles. They should be very careful and crosscheck with dexterity that the text produced by ChatGPT is original without violation of intellectual rights or in any way contributing to plagiarism.

Secondly, academic staff must ensure monitoring and correction of bias, discrimination, insensitivity, or offensiveness found in the output of ChatGPT. They must take corrective actions to rectify such bias and discrimination. Moreover, one must seek prior permission from the receiver of the email before initiating sending any messages through ChatGPT to protect autonomy and privacy. Furthermore, academic staff must be alert and prevent and act against any potential malicious or hate text generation. Time and time again, reflection upon the ethical guidelines and best practices are going to help in ensuring open discussion and collaboration with other colleagues and stakeholders in email writing in academic contexts.

This analysis personifies the AUM staff's concerns about the application of ChatGPT in e-mail communication located within existing literature. Concerns of the staff noted ethical pitfalls reflective of concerns in the studies by (Brown and Wilson 2023; Liu et al. 2023). This was also pointed out as the risk of plagiarism due to the unintentional similarity of the content to some other sources and, in the case of the latter, the possibility of biased or discriminatory language.

Some solutions that hold promise can also be found in literature. Judging from the studies done by Smith and Johnson (2021) and Chen et al. (2022), ChatGPT is capable of improving the quality and clarity of email communication. Besides, with some standards and best practices in place, for example, as proposed by Li et al. (2023) and Wilson and Smith (2023), AUM could stand to gain from and minimize the associated ethical risks. It will try to underscore the importance of human review, strategies to reduce biases, and transparency in using AI in emails. It will develop a culture of learning and collecting feedback

from its users, ensuring responsible and effective integration of ChatGPT into AUM's email communication practices.

4.5.4 Discussion of fourth question results: Demographic influences

The furnished data for analysis reveals remarkable differences in the attitudes between the academic staff regarding the use of ChatGPT at AUM. First, the computed statistics indicate that the gender variable does not significantly bring about these attitudes, with non-significant F values of 0.000, 0.096, and 2.082. Equally, the variable of the level of education does not show any major impact, as shown by the F values of 0.132, 0.418, and 0.178. The variable of experience years also does not lead to any major variation in attitudes through the F values of 0.383, 0.241, and 2.112. Similarly, the variable of age does not significantly influence attitudes as reflected through the F values of 2.104, 2.066, and 1.965. Similarly, the variable for English proficiency level has a significant contribution, since it has an F value of 3.432. Post hoc comparison using the Tukey test indicates there is a difference in attitude among the respondents having experience in the range of 5-10 years as opposed to other ranges. These findings provide some useful insight into some of the factors that may influence the attitudes of academic staff at AUM towards the use of ChatGPT. At the same time, the influence of gender, educational level, years of experience, and age is quite insignificant, while the level of English proficiency is of the essence, especially to those with 5-10 years of experience.

The following are the determinants of attitudes toward the use of ChatGPT for emailing: These are some of the determinants of attitudes of AUM academic staff toward the use of ChatGPT for emailing. English was the major determinant as the demographic variables of gender, education level, years of experience, and age did not have a significant effect. This finding was in line with the existing literature which mainly talked about the potential benefits of ChatGPT for academic writing: organization and generation of drafts (Dergaa et al. 2023, Salvagno et al. 2023), and it also poses views that it may be of greater value to staff with higher English proficiency. However, from the existing literature, some of the concerns were ChatGPT's lack of human-like qualities (Garg et al. 2023) and possible issues in plagiarism (Jarrah et al. 2023), hence a related deeper evaluation is warranted. Integrating these findings with literature, AUM can develop targeted training programs and clear guidelines inculcating responsible and ethical usage of ChatGPT to its best extent of possible optimized communication with minimal risks.

5. Conclusion and recommendations

This paper has thus discussed the use of ChatGPT in the writing of emails within the academic setup, that is, AUM email communication among the AUM academic staff, to establish the benefits, limitations, and ethical issues that come with its use. These have been exemplified by how ChatGPT offers great benefits like more efficient drafting of emails, clarity of emails, and coherence of messages, enhanced language skills, and convenience of time. Among the

limitations identified were that it would at times give the wrong information, failed at times to understand the context, therefore replies were out of context, and it found it hard or was incapable of handling complex or specialized topics. From the ethical point of view, there were issues to do with plagiarism, biased or discriminatory language, consent, and privacy. These included training and familiarization, critical review and verification, human review and editing, bias mitigation, consent acquisition, continuous learning, collaborative discourse, user experience evaluation, technological awareness, and setting up an ethical oversight committee. AUM would thereby be able to responsibly put ChatGPT into full use for email communication to help in improving communication efficacy and nurturing a responsible AI-enabled academic environment.

According to the findings of the study, it is recommended to focus on comprehensive training of academic staff of AUM because such training can be essential to ensure responsibility and appropriate use of ChatGPT during email communication. The training for academic staff will include features, limitations, and ethical dimensions of ChatGPT. Staff should be trained to encourage referencing across the information, ensuring the authenticity of facts for accuracy, and prevent plagiarism and misinformation. On these grounds, end-to-end, this is supposed to develop a culture of critical evaluation and verification.

It is also recommended to incorporate human review and editing processes with emails created through ChatGPT for the sake of clarity, contextual appropriateness, and adherence to ethical considerations. Actively mitigate biases and discrimination therein; act to monitor, track, and mitigate the mentioned adverse outcomes of ChatGPT. Explicitly obtain the recipient's consent; protect the privacy and autonomy of the recipient.

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