

Beyond Automation: Ethical and Professional Dimensions of Artificial Intelligence Adoption in UAE Government Communication

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Abstract

This study examines the adoption of Artificial Intelligence (AI) in UAE government communication, focusing on ethical governance, professional practice, and organizational acceptance beyond automation. Guided by the Technology Acceptance Model (TAM), the research investigates the perceptions of communication professionals and decision-makers concerning AI's ease of use, usefulness, ethical value, and infrastructural requirements. A qualitative methodology was employed, combining in-depth semi-structured interviews with 11 participants. NVIVO software was used to conduct thematic analysis, where the merging themes were identified and presented in the form of a frequency table and cloud map. Findings indicate that AI is widely viewed as a transformational tool that enhances communication effectiveness, personalization, and responsiveness. Participants identified practical AI applications such as predictive analytics, chatbots, automated translation, and sentiment monitoring as instrumental in facilitating citizen engagement. These tools align closely with national initiatives like the UAE AI Strategy 2031. Despite the promise, several barriers to widespread adoption were identified, including skill gaps, cost constraints, organizational resistance, and data-quality. Ethical concerns related to transparency, accountability, privacy, and cultural sensitivity emerged as critical factors influencing public trust and responsible AI use. The study concludes that AI should be seen as a complement to human expertise rather than a replacement, enabling a hybrid model of communicative action. While the UAE benefits from advanced digital infrastructure and strategic alignment, sustainable implementation of AI in government communication requires investment in training, robust ethical governance, and cross-departmental collaboration.

Keywords: government communication, AI technology, AI adoption, ethical governance, professional practice, Technology Acceptance Model (TAM)

1. Introduction

Artificial Intelligence (AI) is increasingly reshaping governance, particularly in the realm of government communication. In the context of the United Arab Emirates (UAE), AI has become a strategic priority, as reflected in national initiatives such as the UAE AI Strategy 2031 and Vision 2071. The UAE aspires to position itself as a global leader in digital governance (Albous, Al-Jayyousi, and Stephens, 2025). Public communication, serving as the critical interface between state institutions and citizens, is expected to be efficient, transparent, and responsive to foster public trust and institutional legitimacy.

Emerging AI tools such as chatbots, predictive analytics, machine translation, and social media monitoring are transforming how information is managed, how citizens engage with government, and how crises are communicated. While these innovations offer numerous advantages, they also raise complex ethical questions regarding governance, professional standards, accountability, and the responsible use of AI in culturally diverse and politically sensitive environments. Examples of the ethical issues are bias in AI algorithms and its impact on fairness; the problem of privacy with data collection of citizens; accountability complexities in case of error in AI; a misinformation issue on automated content; culture blindness in the different populations; lack of transparency in AI judgment; and the possibility of job loss among communication professionals.

Existing scholarships such as Alqudah and Muradkhanli (2021); Wirtz, Weyerer, and Kehl (2022); Habib (2024); and Al-Ali and Khalil (2025) acknowledge both the opportunities and challenges that AI presents in the context of public communication. The national UAE AI plans (UAE AI Strategy 2031, Vision 2071) show that the government has a clear intention towards introducing AI to all areas, including the field of communication (Albous et al., 2025). The literature

gap, however, shows that there is a lack of empirical evidence to understand whether or not communication professionals have the necessary skills and training and organizational support to successfully execute these strategies (Al-Ali and Khalil, 2025; Aldookhi, 2025). The willingness of the practitioners is important since the success of the introduction of AI does not rely solely on the level of technological infrastructure but also the ability of the individuals in the government communication departments to operationalize the AI resources in a way that is ethical, culturally appropriate, and consistent with the national objectives of digital transformation (Habib, 2024; Wirtz et al., 2022). The existing literature has also emphasized the considerations of both infrastructure, mess management, and governance, as well as ensuring ethical considerations for sustainable implementation. Although these contributions are valuable, it remains to be determined whether government communications professionals are adequately prepared, what their training needs may be, and whether AI-related tools are congruent with their ethical and cultural adopted norms. Rather than treating AI as a purely technical or automation-driven tool, this study conceptualizes AI adoption in government communication as a socio-technical process shaped by ethical governance, professional norms, and organizational readiness.

2. Literature Review

2.1 Role of Artificial Intelligence in Enhancing Government Communication

Al-Ali and Khalil (2025) analyze AI incorporation within the UAE government communication, highlighting its revolutionary nature in social media monitoring, citizen engagement, and data analysis. In qualitative interview-based research, the researchers find that, although optimistic about AI, communication professionals are guarded because of ethical issues, reliability problems, and data protection matters. Al-Ali and Khalil (2025) incorporated theoretical models like the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) to posit that adoption is not only driven by perceived usefulness but also by ethics and culture (Al Ali and Khalil 2025). These researchers concluded that AI adoption demands repeated training, intergovernmental cooperation, and stringent ethical controls to ensure public trust. Conversely, Aldookhi (2025) focuses on government media offices in the UAE and how the use of AI alters strategic communication practices in a federal context. Findings of this study revealed mixed attitudes among media professionals; with the potential for AI to help create content, provide translation and facilitate audience interaction. Aldookhi (2025) also established that human intervention is crucial in creating content and providing translation (Aldookhi 2025). Moreover, unlike Al-Ali and Khalil (2025), who discuss theoretical models of adoption of AI, their analysis relies on a framework of communities of practice to show how media offices across different emirates are adopting AI unevenly, with more significant government media offices like Dubai and Abu Dhabi leading this adoption and other smaller emirates lagging. Ethical dilemmas, particularly around misinformation, privacy, and dependence on sensitive data, are identified as pressing concerns, requiring regulatory interventions. The research considers AI adoption not only as a technological shift but also as an aspect of the UAE's overall nation-branding strategy, emphasizing the nation's potential to become a leader of innovation in terms of digital governance. Overall, both studies agree on the potential for AI to enhance efficiency and engagement with citizens, while also creating challenges concerning ethics and regulation. However, the findings by Al-Ali and Khalil (2025) and Aldookhi (2025) differ in terms of breadth and analytical framing. Al-Ali & Khalil (2025) situate the adoption of AI as an opportunity for enhanced communications for government-related theories of technology acceptance and the ethics of adoption. Aldookhi (2025) grounds their analysis in the context of the federal media office; while focusing on practical issues that vary between emirates and frame the use of AI as a part of a modernization narrative and strategy.

2.2 Infrastructure and Capacity Building for AI Adoption in Government Communication

Alqudah and Muradkhanli (2021) analyzed how artificial intelligence has developed in the context of corporate governance, noting that while it can enhance decision-making efficiency, their research also raise new questions about accountability, transparency, and bias. He cautioned that devoting excessive reliance on algorithms could weaken human oversight and ethical accountability, which requires boards to develop adaptive governance models that balance the promise of technology with accountability mechanisms in mind. On the other hand, Markt (2023) claims that Artificial Intelligence in Public Relations and Communications describes the way AI has transformed communication practices, specifically stakeholder engagement, reputation management, and media strategy. In this context, contributors emphasized the potential of AI-enabled analytics providing the level of automation that will support personalization and predictive communication while warning of the risks of automation undermining authenticity and trust without ethical use and monitoring. While the issue of ethics in communication was complementary to Min's governance approach, it shifted concern away from boardroom oversight of AI to legitimacy in the public space. Habib (2024) considered AI from a risk management and governance approach and studied AI governance frameworks utilized by the UAE government. He discovered that community trust in AI is strengthened when regulatory frameworks incorporate principles of fairness, explainability, accountability, safety, and transparency. Another aspect that sets Habib (2024) apart of Markt (2023) and Alqudah and Muradkhanli (2021) is that he considers the state as a key player in the

regulation of the risk that exists around technologies and moral responsibility, whereas Markt (2023) discussed risks at the corporate level, and Alqudah and Muradkhanli (2021) addressed the communicative changes. The contribution made by Habib (2024) emphasizes that risk and governance frameworks pertinent to AI may be used to enhance social perceptions and trust in AI. The UAE PR specialists are optimistic about AI to improve targeting and efficiency in the audience (Yasser Beni, Radwan and Askar 2025). Nevertheless, ethical issues, lack of training, and high cultural preference towards human contact become some of the obstacles to adoption. AI is viewed as an add-on and is not going to replace human communicators.

2.3 Challenges and Barriers in Implementing AI for Government Communication

Wirtz et al. (2022) contend that artificial intelligence (AI) governance should be anchored in a risk-based approach, as AI undertakes multi-faceted technological, social, ethical, and legal hazards. These researchers point out that the "black box" character of AI raises questions on transparency, accountability, and trustworthiness, compelling thorough governance approaches that map risks to guidelines for mitigation directly. Conversely, Abdul-AI (2024), in the context of the United Arab Emirates (UAE), constructs a framework of governance from an ethical AI perspective with the Analytic Hierarchy Process (AHP). While global, systemic threats, Abdul-AI foregrounds regional and cultural sensitivities, specifically regarding privacy, manipulation, and human control (Wirtz et al., 2022). The findings suggest that stakeholders in the UAE prioritize robust datasets and human control in the short term, while maintaining concerns about AI's long-term influence on behavior and social structures. Alhosani and Alhashmi (2024) build on these views by placing AI in the context of government service delivery. In contrast to their work on ethical governance, theirs is a work that foregrounds the possibilities and realizable challenges of public administration through AI deployment. Some of the key benefits include efficiency gains, operations optimization, and increased productivity, and the authors have indicated that the lack of expertise, procurement concerns, and privacy concerns are some of the barriers to adoption. The combination of these studies indicates convergence and divergence.

The government communication employees of the UAE are willing to collaborate with AI but lack the appropriate training. The large hurdles are that the population is sticking to the traditional ways, fear of loss of data and the financial constraints. Ethical principles, professional training and institutional support should be implemented in a successful manner. The study examines practitioners' readiness to integrate AI applications into government communication and the impact of AI on communication efficiency, particularly in areas such as content automation, sentiment analysis, and audience engagement.

2.4 Ethical and Professional Considerations in AI-driven Government Communication

Kerr Barry, and Kelleher (2020) claims that contemporary discourse around "ethical AI" is best understood in terms of the sociology of expectations: powerful actors (governments, consultancies, platforms) co-produce aspirational narratives about the future that legitimizes investment and claims to fix governance but much of the ethics discourse is only generically performative unless it is ultimately translated into domain specific practices, considerable human labor, and strong accountability structures for communicating governance (Kerr et al., 2020). The researchers argue, through an analysis of policy and public texts and a survey, that the public wants developers and governments to share responsibility but that expectations often exceed what existing ML-driven systems are capable of operationalizing in richly communicative contexts. In contrast, Cusnir and Nicola, (2024) use a profession-centred lens to assess how Romanian PR practitioners are already embedding generative AI into their daily work. The findings also document high adoption (73.5%), high frequency of use of ChatGPT (91.6%), with advantages being framed primarily in terms of time-saving and assignment offloading, which were occurring with a very minimal level of formal training, and with ongoing quality and client-facing transparency concerns (Cusnir & Nicola, 2024). A band wagoning pragmatism, "use the tool, but keep a human in the loop" and increasing calls to regulation began to emerge, portraying ethics here as operational guard rails, rather than an abstract principle. Datta (2024) broadens the scope to encompass public administration stating that AI would allow efficiency, personalization, transparency, and evidence-based policy analysis in the condition that the government would be able to resolve issues like infrastructure quality, cost, skills deficit, organizational stagnation, and cybersecurity. The ethics will be placed as the requirements that cannot be negotiable (fairness, privacy, accountability), and will be placed on the books with clear governance procedures on how to be deployed, partnered with various stakeholders, and enforced by regulation.

2.5 Future Opportunities and Innovation in AI-enabled Government Communication

The Internet of Things (IoT) and Artificial Intelligence (AI) have been analyzed concerning governance and urban systems as two similar and distinct yet related aspects. By highlighting the ways in which AI and IoT will enhance the delivery of citizen services and provide support to decision-making, and citizen participation, Al-Ansi Garad, Jaboob, and Al-Ansi (2024) paid attention to the implications of AI and IoT on e-government. It examined promising opportunities (e.g., improved efficiency and transparency) and challenges (e.g., data privacy and socio-economic

disparities) of using AI and IoT in e-governance. On the other hand, Alahi et al. (2023) examined smart city ecosystems, proposing that AI algorithms working with IoT-enabled devices can improve urban infrastructure management while considering how applications of predictive maintenance, energy optimization, and public safety monitoring can be seen as contributing to urban sustainability, from a longer-term perspective. The issue of data overload in systems and environments was also mentioned by Alahi et al. (2023), alongside security threats and bias in algorithms, which underscores the necessity of robust regulatory frameworks of the public policy. Santos and Carvalho (2025) engaged AI using the participatory environment management, where AI promises to be effective in establishing relations and partnership among different stakeholders. These researchers examined AI tools and applications such as machine learning for environmental monitoring and chatbots for citizen reporting, which could lead to inclusivity and adaptive management for sustainability. Lastly, Santos & Carvalho (2025) raised several concerns, including the environmental footprint of AI and ethical considerations related to its application, as well as the need for transparent governance structures to regulate AI in public life.

2.6 Literature Gap

While advancements in scholarship have begun to identify the disruptive importance of Artificial Intelligence (AI) in government communication, significant limitations of analysis, both in breadth and in depth, remain. The available literature emphasizes AI's ability to enhance efficiency in government communications, citizen engagement processes, and even strategic communication plans. Nonetheless, for the most part, existing literature has undertaken a descriptive analysis and focuses on the trend of early adoption of AI. There is very little Literature regarding the sustainable application of AI for government communications organization in the UAE, and definitely less than for the contexts of emirates, Dubai and Abu Dhabi. Likewise, while the literature refers to studies on many of the components relating to ethical issues positioned on intrinsic dimensions, for example, privacy, misinformation and accountability, and again most underscore conceptual perspectives, with little empirical and few implementation frameworks to determine governance structures in the UAE context. Also paradoxically, there remains a discrepancy with academic Literature examining the ethical implications and technical infrastructure concerned with AI, which are solely associated in totality.

3. Theoretical Framework : Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is widely regarded as one of the most influential frameworks for understanding and predicting user acceptance of new technologies. Derived from the Theory of Reasoned Action (TRA), TAM introduces two key constructs: Perceived Usefulness (PU), referring to the extent to which a technology enhances task performance, and Perceived Ease of Use (PEOU), indicating how effortlessly the technology can be utilized. These two factors directly influence users' behavioral intentions and actual technology adoption. TAM was initially used to analyse management information systems but it has since been expanded to TAM2 and Unified Theory of Acceptance and Use of Technology (UTAUT), which incorporate other dimensions like social influence and facilitating conditions. The model has been used in different fields, such as education, healthcare, mobile banking, and cloud services (Santos, 2022). TAM has proved to be useful in the context of digital government in a number of projects in the United Arab Emirates (UAE), including the Dubai e-Government platform, Abu Dhabi Seha App, the Dubai Police mobile app, and the LMS system in the Ministry of Education, which show the importance of PU and PEOU in promoting customer engagement in smart services. TAM is a useful theoretical framework that can be applied to explore the adoption of novel technologies such as Artificial Intelligence (AI) because of its flexibility and adaptability. Applied to the governmental communication context, TAM offers a systematic way to examine the issue of AI adoption by relating the attitude of the users to the organizational behavior and the acceptance strategy, thus, providing the understanding of how the governmental entities can incorporate AI into their communication activities. The Technology Acceptance Model (TAM) became the conceptual framework of developing the research questions and interpreting the interviews. Perceived Usefulness (PU) was proposed based on the observations of the participants in terms of the efficiency, individualization, and engagement of the citizens that may be promoted by AI. The Perceived Ease of Use (PEOU) provides the basis for discussion on how to provide training, the digital-readiness, and the significance of easy to use systems. The TAM model further allowed the researcher to place additional barriers to adoption like lack of skills, resistance to change, and insufficient infrastructure into perspective. Generally, TAM was a useful frame in making the relationship between the experience and attitude of the participants and the overall organizational acceptance strategies and subsequently, both the data analysis and the findings of the study.

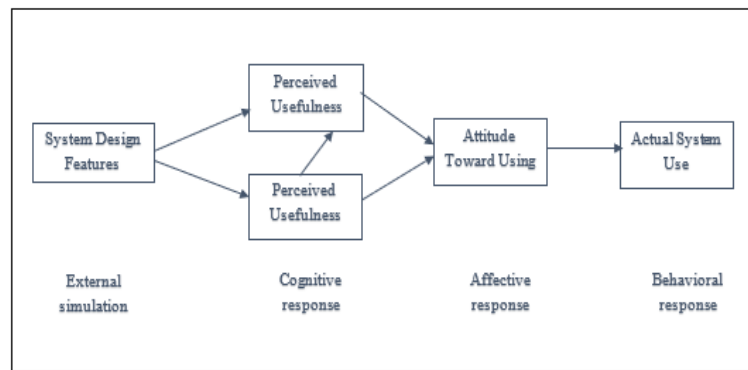


Figure 1. Source: Davis, F. D. (1987). User acceptance of information systems : the technology acceptance model (TAM) Link

3.1 Research Questions

RQ1: What is the way Artificial Intelligence can be used to provide support to Government Communication functions, initiatives, and efforts?

RQ2: What infrastructures would be required in Government Communication using Artificial Intelligence?

RQ3: What are some of the challenges to the use of Artificial Intelligence in Government Communication?

RQ4: What are the ethics that should be considered to facilitate the use of Artificial Intelligence in Government Communication?

RQ5: In what areas of content creating can Artificial Intelligence be applied?

3.2 Methodology

This paper examines how Artificial Intelligence (AI) can be integrated into government communication organizations in the UAE using the qualitative methodology. It tries to learn about the perception, experiences, and attitude of communication practitioners and decision-makers. The data collection method was semi-structured interviews, which is flexible and enables the researcher to make the participants think in-depth about their readiness, barriers, and opportunities concerning AI adoption. Peer-reviewed literature and government reports, as well as policy literature, were employed as complementary secondary data to give a context and back the analysis of the interview findings.

3.3 Research Design and Philosophy

The research design used in this study was qualitative to allow carrying out a comprehensive analysis of the opinions of the participants regarding the use of AI in government communications. This method was very appropriate because it not only documented the existing but upcoming issues surrounding the use of AI (Pandey & Pandey, 2021). The study had an interpretivist philosophy, which sought to comprehend the ways in which the participants make social realities. This philosophy the most suitable since the research aimed to record subjective meanings, attitudes and organizational behavior with regard to the adoption of AI, which could not be effectively measured by quantitative approaches.

3.4 Data Collection

The data were gathered solely using semi-structured interviews in the forms of government communicators, directors, and employees as well as by using media practitioners, where possible, which is acceptable case-wise and provided flexibility and increased access. The interview guide has been created with the most significant themes, including readiness to adopt AI, perceived usefulness, obstacles, training requirements, and organizational preparedness. The semi-structured interviews have provided participants with the opportunity to express their views in detail and also the researcher to enquire further depending on the response (Mishra & Alok, 2022). Secondary data such as journal articles, government plans, and research were also examined to triangulate results and increase validity.

3.5 Sampling Techniques

A purposive sampling method was used to identify the participants who were best suited to answer the research questions (Dubey & Kothari, 2022). The sample comprised decision-makers and media practitioners who work in the government communication departments, especially those who have real experience in communication and technology integration strategies. This strategy was essential to ensure that participants who could give valuable information on the adoption of AI were used to collect data. Also, the purposive sampling was used to get a variety of perspectives from participants who had direct experience and involvement in government communication, and, thus, could offer appropriate perspectives in the implementation of Artificial Intelligence in this area. All the participants were senior or

middle level and provided various insights in regard to the strategic, managerial, and operational aspects of government communication. In addition, each of the interviewees was included in the main government communication framework in UAE, which makes them especially qualified to play a vital role in advancing the aims of this research.

Table 1. Table of participants' details

Participant #	Designation	Male / Female
Participant 1	Director of Government Communication	Female
Participant 2	Manager - Corporate Communication at the UAE General Civil Aviation Authority and Chairperson of the ACAO Media and Corporate Communications Committee	Male
Participant 3	Assistant Manager – Strategic & Government Communication	Female
Participant 4	Media Expert at Government Communication	Female
Participant 5	Content Manger	Male
Participant 6	Head of Media Communication	Female
Participant 7	Director- Marketing and Communication	Female
Participant 8	Head of Media Communication	Female
Participant 9	General Director for Media Consultation Agency	Female
Participant 10	Head of Government Communication	Male
Participant 11	Director of Government Communication	Female

3.6 Data Analysis

The data will be analyzed in this research in a qualitative manner, to examine how media practitioners view the implementation of AI in government communication by utilizing the Technology Acceptance Model (TAM). Interview transcripts and policy. This comprehensive data analysis approach ensures a nuanced understanding of both practical and ethical dimensions shaping AI acceptance within UAE government communication. NVIVO software (NVivo 14) was used to conduct thematic analysis where the merging themes were identified and presented inform of a frequency table and cloud map.

Informed Consent Form was used to inform the participants about the audio recording process in advance and to sign the written consent form, which was approved by Research Ethics Committee. All the interviews were recorded on the digital audio device with the consent of the participants. The results were then transcribed verbatim in order to have accuracy and fullness of data.

The recorded interviews were brought into NVivo 14 software to undergo systematic thematic analysis. The process of the analysis was divided into several steps: at first, initial coding was carried out in which specific text fragments were recognized and assigned descriptive codes. Second, the codes were divided into broad categories depending on the emerging patterns and themes in line with the research questions. Third, the categorized data were narrowed down using constant comparison so as to have uniformity and consistency.

The query and visualization features of NVivo were used to create frequency tables and word cloud maps that helped to understand the popularity of the themes among all 11 participants. The cross-comparative theme analysis of various groups of participants (decision-makers vs. media practitioners) was made possible by the feature of the software of cross-comparing the themes. This methodology had a beneficial effect on the quality of data management, the promotion of transparency in the analysis process, and the identification of convergent and divergent views on the adoption of AI in UAE governmental communication.

3.7 Ethical Considerations

Ethics was one of the most pivotal aspects of this research, as the well-being of participants and the credibility of the study's outcomes relied heavily on the ethical standards adhered to throughout the process. Ethical approval is mandatory for scientific journals subjected to Human participants (e.g., surveys, interviews, experiments) and this step is essential for upholding academic integrity and adhering to the Research Ethical Committee guidelines to ensure the highest quality and integrity of the findings, several key ethical principles were followed:

- The data and findings were presented without any form of manipulation.
- All secondary data were sourced from credible and authentic references.
- Participant selection and evaluation were conducted impartially, free from any bias.

Given that the research involved human subjects, the researcher sought approval from the Research Ethics Committee via the Research Ethics portal submitting all required documentations, including the "Informed Consent Form" and the "Participant Information Sheet". To ensure the confidentiality of the participants, all the details that identified them as such were anonymised in the study.

4. Findings

4.1 Artificial Intelligence Support for Government Communication Functions, Initiatives, and Efforts

The interviewees consistently considered AI a groundbreaking support tool that allowed for greater efficiency, personalization, and responsiveness. AI was viewed as an essential tool for analyzing big data, understanding audience sentiment, predicting crises, and advancing multilingual communication. Interviewees cited tools such as chatbots, smart platforms, and real-time analytics as a means to communicate faster, in a data-driven, and citizen-centric manner. Interviewees confirmed that AI is expected to augment rather than replace the human role in the field, a perception that further supports its acceptance. NVIVO software was used to conduct thematic analysis. The most occurring themes are presented in a frequency table and a cloud map

This shows how frequently each theme was mentioned across all interviews:

Table 2. Themes on AI Supporting government communication

Identified Themes	Participants
AI encourage Data Driven Decision Making	P1-P11
AI Helps Public Engagement and personalization	P1, P3, P4, P5, P6, P7, P8, P10, P11
AI bring Efficiency and Automation	P1-P3, P5, P6, P7, P9-P11
AI Enhance Crisis Management and Prediction	P1-P4, P8, P10, P11
AI improves Trusts in Government Ethics through Human-AI balance	P1, P2, P6, P9, P10, P11
Improves institutional readiness & collaboration	P4-P6, P7, P8, P11



Figure 2. Cloud map on AI Supporting government communication

Theme 1: AI encourage Data Driven Decision Making

The majority of the participants associated AI to providing the analysis capacity for vast datasets which supports making informed decision. To support this theme, participant 11 stated, *“The ability to collect and analyze large datasets has become a cornerstone for planning, designing, and executing communication campaigns. Data allows us to pinpoint target audiences with precision—based on age, language, culture, behavioral trends, and demographic distribution—enabling the development of more impactful messaging.”* Participant 10 also while supporting the role of AI in the decision making indicated, *“Thanks to this application, we now know exactly the size of the audience we’ve reached and how to expand our reach based on precise scientific analyses,”* Participant 10”

Theme 2: AI Helps Public Engagement and Personalization

The participants supported the role that AI play in supporting the personalized engagement of the citizens. Participant 3 supported this saying, *“AI chatbots and sentiment analysis improve citizen interactions and real-time feedback,”* Participant 3” In respect to public engagement through AI, participant 1 also stated, *“Interactive chat (Chatbots): Artificial intelligence applications via interactive chat can answer public inquiries at any time quickly and effectively, which contributes to enhancing the customer experience with government services,”* Participant 1.”

Theme 3: AI bring Efficiency and Automation

In examining the supported provided by AI, participants emphasized the gains contributed towards ensuring efficiency. Participant 5 observed, *“Its advanced analytical capabilities, automation of routine processes, and ability to enhance the speed and accuracy of communication with the public make it indispensable, Participant 5.”* Participant 10 explained, *“Contributing to the automation of routine processes such as preparing daily reports and following up on media inquiries, which saves employees time and effort, allowing them to focus on more strategic tasks, Participant 10.”*

Theme 4: AI Enhance Crisis Management and Prediction

Participants also highlighted the aspect of using AI in the management of crises and making prediction which emerged as a key capability. Participant 8 stated, *“In the field of emergency and crisis management, artificial intelligence is a vital tool that helps analyze data instantly and enables quick, decisive actions, Participant 8.”* Participant 1 noted, *“Crisis Monitoring: AI applications can constantly monitor social media and traditional media to detect potential crises or media escalations, giving government communications departments the ability to respond quickly, Participant 1.”*

Theme 5: AI improves Trusts in Government Ethics through Human-AI balance

In reference to their responses, participants stressed on the important role of AI in human oversight by improving trust that people have in government ethics. Participant 2 explained, *“AI complements human expertise, enhancing productivity without replacing the nuanced judgment required for official communications, Participant 2.”* Participant 6 added, *“I believe AI should be employed as a supportive tool, not a replacement, since the specialized human touch is indispensable in crafting messages, understanding social and cultural contexts, and adapting content appropriately to reality, Participant 6.”*

Theme 6: Improves institutional readiness & collaboration

Participants emphasized on the ability to strategically align national initiatives by making institutions ready and ensure collaboration. Participant 1 noted, *“These efforts come within the framework of the UAE's ambitious vision to be at the forefront of advanced countries in the use of technology and artificial intelligence in various sectors, Participant 1.”* Participant 8 stated, *“The UAE's efforts to position itself at the forefront of global AI advancements are already strengthening its government communication standards in this context, Participant 8.”*

4.2 Infrastructure to use Artificial Intelligence in Government Communication

The participants pointed to various aspects that contribute to the formation of themes that identified the infrastructure that AI required in supporting communication by the government. The thematic analysis conducted led to the most occurring themes as presented in the table below and cloud map.

Table 3. Themes on types of infrastructure

Identified Themes	Participants
Robust Digital Infrastructure	P1-P11
Maturity And Organizational Readiness	P1-P11
Capacity Building and Training	P1, P2, P3, P6, P9, P11
Policy Frameworks and Governance	P1-P11
Research And Strategic Partnerships	P8, P10, P11



Figure 3. Cloud map on types of infrastructure

Theme 7: Robust Digital Infrastructure

Participants also indicated the acknowledgement of having robust digital infrastructure as critical to the government communication. Participant 7 stated, *“At ADDA, we have helped establish the foundational infrastructure—such as cloud platforms and data management systems—required to support AI applications, Participant 7.”* Participant 2 indicated, *“The authority employs AI for data-driven content creation, real-time monitoring of public sentiment, and digital engagement. GCAA has dedicated teams specialized in AI-driven digital communication, Participant 2.”*

Theme 8: Maturity and Organizational Readiness

An important infrastructure identified by the participants involves organizational readiness and maturity which varies across entities. Participant 3 observed, *“The UAE has one of the most advanced AI infrastructures among global governments. While major entities (e.g., Smart Dubai, DEWA, RTA, and Dubai Police) have high AI adoption, other departments are still in the process of scaling up their AI capabilities, Participant 3.”* Participant 4 noted, *“The application of AI in environmental government communication remains limited.”* The participant added, *“To date, there are no officially approved advanced AI applications within the ministry’s communication management, Participant 4.”*

Theme 9: Capacity Building and Training

Participants related training and capacity building as essential elements that support the use of AI in government communication. Participant 5 stated, *“Training is essential to unlock AI’s full potential and mitigate risks. The GMO runs regular workshops and partners with academic institutions to develop specialized training programs that cover AI tools, ethical use, and data literacy, Participant 5.”* Participant 6 added, *“The communication team participates in specialized AI training workshops, which have contributed to developing skills in audience analysis, smart content production, and more efficient digital campaign management, Participant 6.”*

Theme 10: Policy Frameworks and Governance

The participants emphasized on the frameworks of governance and policy as being supportive infrastructure in using AI in government communication. Participant 7 noted, *“ADDA’s governance frameworks are designed to uphold these ethical standards, ensuring AI technologies serve the public interest responsibly, Participant 7.”* Participant 6 stated, *“We also observe a variation in acceptance and engagement levels with these tools among employees; while some heavily rely on AI, others remain hesitant or not fully convinced of its effectiveness. This calls for enhancing awareness and clarifying AI’s role as a supportive tool, Participant 6.”*

Theme 11: Research and Strategic Partnerships

Participants’ answers pointed to the collaborations and the support towards the integration of AI. Participant 4 mentioned, *“In June 2025, a memorandum of understanding was signed with the Mohamed bin Zayed University for Artificial Intelligence (MBZUAI) to establish an AI lab within the ministry focused on developing smart environmental solutions, Participant 4.”* Participant 10 added, *“We signed a Memorandum of Understanding with Presight AI. This partnership aims to leverage artificial intelligence analytics and big data to enhance our ability to market the UAE as a leading destination for foreign direct investment, Participant 10.”*

4.3 Challenges facing the use of Artificial Intelligence in Government Communication

Despite the enormous strides made in using digital learning and collaboration, barriers to use remained. Thematic analysis identified the most occurring themes as presented in the table and cloud map.

Table 4. Themes on Challenges facing AI in government communication

Identified Themes	Participants
Challenge in Technical and Data Limitations	P1-P11
Challenge in Training and Data Literacy	P1, P2, P4, P6, P7, P9, P10, P11
Challenge of Cultural Resistance and fear of change	P1, P2, P4-P6, P7-P10, P11
Issues on Governance, Ethics & Privacy	P1, P3-P6, P7, P9-P11
Challenge of Financial & Resource Constraints	P1, P2, P6, P7, P9-P11
Challenge of Trusts and Human vs. AI balance	P1, P3-P6, P7-P11



Figure 4. Cloud Map on Challenges facing AI on government communication

Theme 12: Challenge in Technical and Data Limitations

The barriers relate to technical were widely mentioned by the participants. For instance, participant 2 stated, “*Ensuring data accuracy was critical since aviation communication demands precision; integrating AI outputs with verified data sources required continuous validation and refinement of algorithms*, Participant 2.” Participant 10 added, “*Many available applications—whether in text analysis, instant translation, or chatbot systems—demonstrate outstanding performance in English but lack the same level of efficiency when dealing with Arabic*, Participant 10.”

Theme 13: Challenge in Training and Data Literacy

The significant challenge reported by the participants entailed persistence in the skills gaps due to lack of training and data literacy. Participant 11 explained, “*One of the key obstacles we face relates to the outputs of higher education. In most cases, university graduates lack alignment with the needs of the labor market and the forward-looking vision of modern mass communication*, Participant 11.” Participant 1 supported the existence of this gap by saying, “*Some employees may have difficulty adapting to new technology, as they may feel anxious about losing their jobs or responsibilities*, Participant 11.”

Theme 14: Challenge of Cultural Resistance and fear of change

Responses from the participants led to the emergence of resistance towards cultural change and the fear for such change as significant barrier. Participant 7 observed, “*I have observed some resistance to change and concerns about job security among communication officials, which can slow AI adoption. There are also varying levels of digital literacy that affect how quickly teams embrace AI tools.*” Participant 1 also indicated, “*Some employees in government communications departments may prefer traditional ways of working and see AI as a threat to the work values they are accustomed to. This mindset may lead to resistance to change and hesitation in adopting new technologies.*”

Theme 15: Issues on Governance, Ethics & Privacy

Participants also pointed to the issue relating to the privacy, governance, and ethics. For instance, Participant 1 stated, *“The use of AI in government communications requires compliance with laws and regulations related to privacy and data protection. There may be restrictions on how data is collected and used, which may impact an organization’s ability to fully benefit from AI technologies.”* Participant 6 added, *“Certain media materials and documents may contain sensitive or personal information that should not be processed through public or cloud-based AI platforms, to avoid any potential breaches or data leaks.”*

4.4 Ethical Considerations in the use of Artificial Intelligence in Government Communication

There was generally unanimous agreement that AI needs to be used ethically. Thematic analysis was done using the NVIVO software and the most frequent themes are provided in the table and cloud map.

Table 5. Themes on ethical considerations to Guide AI use

Identified Themes	Participants	
Transparency	P1-P11	
Accountability	P1-P11	
Protection and Data Privacy	P1, P4-P11	
Cultural Sensitivity and Local contexts	P1, P3-P11	
Issues of trust, Empathy and inclusivity	10	P1, P3-P11
Ethical governance framework	11	P1-P11



Figure 5. Cloud Map on ethical considerations to Guide AI use

Theme 16: Transparency

Transparency was deemed essential. Participant 4 stated, “*Transparency is essential so that citizens know when they are interacting with AI versus a human.*” Another participant 7 noted, “*Full transparency is necessary at every stage of AI usage, with clear disclosure when content, recommendations, or analyses are generated by intelligent systems.*”

Theme 17: Accountability

Accountability mechanisms were emphasized. Participant 8 explained, “*There should be a clear accountability system for dealing with decisions made by AI. If there are decisions that affect the public, they should be able to be reviewed and explained by a human element.*” Participant 9 added, “*It is essential to maintain alignment with ethical and professional standards, as well as international best practices in healthcare, to avoid generating recommendations that may conflict with the cultural identity and values of the community.*”

4.5 Fields of Content Creation Where Artificial Intelligence Can Be Used

It was identified that AI might be employed in press releases, newsletters, translations, and other data-oriented report types in order to save time and achieve high accuracy when it is necessary.

Table 6. Themes on fields of content creation where Artificial Intelligence can be used

Identified Themes	Participants
Data Driven Reporting	P1, p2, p4-p11
Strategic content Planning	P1, p2, p4-p11
Structured Content Drafting	P1-p11
Translation and Language support	P1, p3-p7, p9-p11
Human Oversight and hybrid creativity	P1-p11
Trust messaging and Trust building	P1-p11



Figure 6. Cloud Map on fields of content creation where Artificial Intelligence can be used

Theme 18: Data-Driven Reporting

A field that provides the potential application of AI is AI excels in data-intensive content. Participant 2 stated, “*AI applications have proven effective in specific areas of news writing and content production, particularly when dealing with data-driven content such as weather reports, economic statistics, and sports results.*” Another participant 5 noted, “*Generating smart reports: AI can generate automated reports on the effectiveness of media programs and campaigns, helping to provide recommendations based on real data.*”

Theme 19: Strategic Content Planning

An application field of AI involves AI support for campaign design. Participant 6 explained, “*Government Communication departments use AI technologies to analyze data flowing from social media platforms with the aim of understanding public opinion trends and public response to government campaigns. This helps improve media communication strategies and target audiences more accurately.*”

5. Discussion, Conclusion, Future Perspectives, and Limitations

5.1 Discussion

This section presents a comprehensive synthesis of the study’s outcomes, integrating the key findings with critical discussion, interpretive insights, and theoretical implications. The findings are analyzed in relation to the research objectives and existing literature, highlighting patterns, relationships, and deviations observed during the investigation. The discussion further interprets these results, offering a deeper understanding of their significance and contextual relevance. The conclusion encapsulates the major contributions of the study, emphasizing its academic and practical implications. Future perspectives outline potential areas for continued exploration, proposing directions for subsequent research and practical applications. Finally, the limitations acknowledge the study’s inherent constraints—such as methodological boundaries, sample characteristics, and contextual factors—ensuring transparency and providing a foundation for future refinement and advancement in the field.

5.1.1 AI as a Strategic Enabler

The results indicate that AI is highly supported by the Perceived Usefulness (PU) in TAM, which is in line with the findings of Al-Ali and Khalil (2025) who reported that the communication professionals have a positive attitude towards AI in improving efficiency and citizen interaction. The focus on the use of data-driven decisions, personalization, and crisis prediction responds to the Aldookhi (2025) observation that AI is transforming how strategic communication is conducted. The impression that AI can help to target with precision due to age, language, culture, and behavioral patterns reflects the framework by Wirtz et al. (2022) that makes AI a key to data-driven governance. Nevertheless, people made it clear that AI is not meant to replace but as an extension, which is a human-in-the-loop approach as presented by Cusnir and Nicolas (2024). This view represents the world of the practitioners; to realise that although AI boosts efficiency, human factor is still very important in cultural sensitivity and strategic thinking especially in UAE multicultural environment.

5.1.2 Infrastructure and Readiness in the Organization

The difference in the adoption of AI by entities verifies Aldookhi (2025) finding that bigger government media offices such as Dubai and Abu Dhabi are the first to adopt AI and the smaller emirates are the last to adopt AI. This gap has a direct effect on the Perceived Ease of Use (PEOU) in TAM. Respondents also mentioned advanced infrastructure, such as cloud platforms and AI analytics, whereas participants recognized little direct communication applications. This

helps Alhosani and Alhashmi (2024) to identify the expertise gaps and procurement issues as the barriers to adoption. The focus on training can be compared to the argument by Alqudah and Muradkhanli (2021) that effective AI governance involves adaptive structures between technology and accountability systems. The reference to the partnerships with MBZUAI and Presight AI is a sign of the strategic approach the Habib (2024) suggests to establish the community trust by means of collaborative governance frameworks.

5.1.3 Multifaceted Barriers

The identified risk-based AI governance framework by Wirtz et al. (2022) is confirmed by technical, human, organizational, and financial barriers. The limitations in Arabic language are reflected on the problems of non-English AI systems in the world, and the issues of participants that are related to the preparation of university graduates outline the knowledge gaps in education that the literature overlooks so far. The fear of losing the job and the resistance to the change is in accordance with the results of Al-Ali and Khalil (2025) that ethical issues and reliability concerns can cause adoption reluctance. Nonetheless, the differentiation of threats and blessing by the participants of AI demonstrates subtle knowledge that is not reflected in binary literature descriptions. The financial implications, though admitted, were sent through the prism of strategic investments, which justifies the position put by Datta (2024) that the use of AI entails long-term outlook despite short-term expenses. All these barriers decrease the PU and PEOU of TAM, which influence intention to adopt AI.

5.1.4 Ethical Governance as Principulative

The unanimity in the focus on the ethical issues is not limited to Kerr et al. (2020) criticism of performative AI ethics: the practical use of the UAE AI Ethics Charter and Personal Data Protection Law is presented. Participant's attention to cultural sensitivity, especially when it comes to tribal organization and official procedure is a contextual aspect that is not highly present in the Western-centric literature on AI ethics. The issue that AI technology is unable to find its way through titles and official roles with symbolic and social significance is an example of how Abdul-AI (2024) suggests regional and cultural sensitivity of ethical AI systems. This observation undermines the generalized AI governance frameworks and indicates that successful frameworks should provide local values. The visibility, responsibility, and human control can be attributed to Habib (2024) ideas of fairness, explainability, and safety, and the use of the national frameworks indicates institutional desire that goes beyond Markt (2023) corporate-level.

5.1.5 Hybrid Model for Content Creation

The inclination to human-AI collaboration in the creation of content proves the Cusnir and Nicola (2024) results that PR practitioners are pragmatic when adopting AI and keep human control. The fact that participants recognized that AI is more effective in data-driven reporting but creativity and cultural relevance need to be provided by humans justifies the middle ground that Datta (2024) advises. The fact that it is different between the ability to perform the given tasks effectively, and the fact that it cannot substitute the human touch in terms of narration speaks to an advanced knowledge of AI capabilities. This point of view is related to the fact that Santos and Carvalho (2025) note that adaptive management demands human judgment. The trust issues contextualised around AI-generated content reflect the general literature on algorithmic accountability, but the fact practitioners professional responsibility to check outputs.

5.2 Implications (Theoretical and Practical)

The results confirm the relevance of TAM to the adoption of AI in government communication, where PU is highly endorsed and PEOU depends on the infrastructure, training, and organizational support. Nevertheless, the research builds on TAM by focusing on ethical governance and cultural sensitivity as extraneous factors with important implications on behavioral intention. According to the hybrid collaboration model, effective AI implementation implies the need to redefine roles instead of eliminate them, promote professional growth instead of job loss. The UAE initiative-based ethical models and strategic alliances can be used to provide examples to other governments that are going through the integration of AI. Future studies ought to investigate patterns of long-term adoption, the training program efficacy and the changing ratio between automation and human judgment during culturally varied communication situations.

5.3 Limitations

One of the main limitations of this research is that the study is based on the United Arab Emirates (UAE) only thus limiting the generalization of the results to other countries. The methods of governmental communication and the implementation of artificial intelligence (AI) may vary greatly depending on the country because of the differences in cultural principles, legislation, technological resources, and business practices. Therefore, the findings of this research may be inadequate in illustrating the variety of the modes of integrating AI in government communication within the global scope. Moreover, the data used in the study is only founded on interviews with media practitioners in the government sector and not those in the private sector. This tunnel vision can be a limiting factor in the scope of insights because the use and application of AI technologies in the various organizations in the private sector do not always follow the same pattern, which could have different approaches and innovations in communication activities.

5.4 Future Expectations and Conclusion

Artificial Intelligence and communication with the state of the UAE should be considered in future research beyond qualitative interviews to quantitative surveys and case studies in different departments of governmental services. This type of research would allow drawing substantial comparisons of the adoption of AI and its results in federal, local, and sector-specific agencies. Longitudinal studies would be especially important to trace the course of AI integration over time, particularly concerning such national projects as UAE Vision 2071 or AI Strategy 2031.

Also, the more specific topics like the use of AI in managing crisis communication, the provision of the majority of services in multiple languages, and the determinants of increased citizen trust- would further enlighten the effects of AI. The analysis can also be enhanced by interdisciplinary studies involving a study of communication, ethics, and technology approaches to understand the governance frameworks that can render the implementation of AI in the government settings responsible. Lastly, as the generative AI is growing fast, it is imperative to analyze how these technologies are influencing the professional position, the integrity of the content, and achieve a balance between the AI implementation and generative creativity in communication within the sphere of the public sector.

The results show that AI technologies, especially chatbots, sentiment analysis, and predictive analytics, are positively viewed as increasing citizen involvement and allowing making decisions based on the data. Nevertheless, there are also discrepancies in the adoption of these tools whereby bigger government agencies are at the forefront of the same whereas smaller agencies encounter difficulties in terms of resources and capacity. In view of the sophistications of implementing new technologies, ethical issues became a significant theme, in particular, the issue of transparency, accountability, and cultural sensitivity. The governance systems, including the recently unveiled UAE AI Ethics Charter, may contribute to overcoming some of those concerns. Notably, participants indicated great preference in having human supervision in the AI-based processes to serve professional jobs and practice. The paper confirms the opinion of AI as a complemented tool, but not a substitute of human expertise. In general, the study indicates that to implement AI sustainably into the governmental communication, the balance between innovation, ethical governance, infrastructure growth, and human expertise will be necessary, which are determined by national priorities and the need to ensure that citizens do not lose trust.

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Author contributions

The author, Fatima Ibrahim Al Mazmi, conceptualized the study, designed the research framework, conducted the semi-structured interviews, and carried out the data collection and analysis using NVivo. She also prepared the initial draft of the manuscript. The co-author, Ahmed Farouk Radwan, contributed to the development of the theoretical framework, provided supervision throughout the research process, and offered critical revisions to strengthen the manuscript's academic rigor and intellectual content. Both authors actively contributed to the interpretation of the findings, critically reviewed the manuscript, and approved the final version for publication.

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