Digital passivisation: The framing of citizens and their participation in the United Arab Emirates' national AI strategy

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Abstract: This article explores how the UAE's national AI strategy frames citizens and their participation in AI development and deployment. By employing both qualitative and quantitative content analysis, the study identifies key narratives and representations of citizens within the strategy. The findings reveal that the strategy predominantly positions citizens as beneficiaries of AI-driven advancements rather than active participants in policy development. This approach, termed **digital passivisation**, highlights the limited emphasis on citizen engagement and the top-down implementation of AI policies, which may hinder broader public involvement. The article concludes with a call for more inclusive governance models that actively involve citizens in shaping AI policies to ensure that AI development aligns with societal needs and democratic values.

Keywords: digital passivization, citizen participation, national AI strategy, AI governance, AI policy

1. Introduction

Citizen participation typically refers to the involvement of individuals in decision-making processes or activities related to governance, policymaking, or community development. It often implies a more active role for citizens, such as voting, attending public meetings, serving on advisory committees, or participating in grassroots initiatives (Rowe & Frewer, 2005). As we move forward into the current Digital Age, we have witnessed an increase in the relationship between digital transformation and citizen participation (Tolbert & McNeal, 2003). Kuhn (2017) asserts that technological developments have the potential to enrich both decision-making and policy processes by broadening the number of people who can participate. An example of these technologies is artificial intelligence (AI).

AI has been defined as 'the science of making machines that can perform tasks that would require intelligence if performed by humans' (Minsky,

1969, p. v). During the 2010s, progress in AI garnered significant interest from both researchers and practitioners, unlocking a wide array of advantageous prospects for utilising AI in the public sector (Pan, 2016; Wirtz et al., 2019). Several studies have demonstrated that AI can facilitate community participation and engagement in governmental policy development processes and public discussions (e.g. Battina, 2017; Havrda, 2020; Sharma et al., 2020). Additionally, AI has aided decision-making in the public sector (Reis et al., 2019; Valle-Cruz & Sandoval-Almazan, 2018). By using artificial intelligence, policymakers can adopt a more holistic and practical approach to decision-making (Milano et al., 2014). Although artificial intelligence offers tremendous potential for transformation, it has so far had only a limited positive impact on public policy (Engstrom et al., 2020; Misuraca & van Noordt, 2020; Reis et al., 2019). In fact, AI has been criticised for worsening existing disparities when not properly executed and controlled (Zajko, 2022). AI systems are often viewed as supporting 'top-down decision-making processes', such as those involved in public budgeting, where decisions are made without community input (Havrda, 2020). Furthermore, AI has been sought to exemplify how digital technologies are increasingly used for surveillance (Herasimenka, 2020).

AI, as a rapidly developing technology, holds a multitude of possible implications for economic and political life (NITI, 2018). Its significance has been recognised by various governments worldwide, leading to the publication of national AI strategies (NASs) in many countries (European Commission, 2022; Lords, 2018; National Science & Technology Council, 2016; see also Bareis & Katzenbach, 2022; Papadopoulos & Charalabidis, 2020). These NASs 'use different kinds of imaginaries – democratic, socio-technical, and data – that help citizens envision how a future AI democracy might look'. Such efforts lead to a new type of interaction between citizens and governments (Paltieli, 2022, p. 1,613). For example, a study by Hendawy and Kumar (in press) analyses national AI strategies (NASs) in five Arab countries: UAE, KSA, Egypt, Qatar, and Morocco. The study aimed to clarify AI's portrayal within these strategies, identifying six key representations: AI as part of the national vision, a booster for economic growth, a creator of new job opportunities, a facilitator of regional leadership, potentially out of control, and a threat to employment. However, further research is still needed to investigate how citizens are affected by these narratives.

Officially published documents provide a basis for interpreting and enforcing laws, shaping public policies, and regulating professional practices (Bovens, 2009). These documents are assumed to mirror the cultural, po-

litical, economic, and ethical values and principles of a nation (Amboro et al., 2022). Given this information, the text from national AI strategies provides insights into how the strategy creators view their role in relation to AI technology and its impact on citizens. NASs have the potential to shape perceptions of the interaction between citizens and technology (for a wider discussion on the AI-citizen relation, see Hendawy & Ansari, 2023).

Given that technology, and AI in particular, has the potential to both enhance and hinder citizen participation, it becomes crucial to understand how and to what extent these effects occur through the narratives communicated by governments in their published national AI strategies. This chapter analyses the United Arab Emirates (UAE) national AI strategy, focusing on how this strategy frames citizens and their participation. Such an examination highlights the intersection of AI and citizen participation and sheds light on the overarching narratives of governmental strategies.

In October 2017, the UAE government, through the UAE AI office, unveiled the vision for the National Strategy for Artificial Intelligence 2031. The objective is to position the UAE as a global AI leader, as noted by OECD.AI (2022). The UAE was the second country worldwide and the first in the Middle East to publish a national AI strategy. Before the official announcement in 2017, the UAE had been laying the groundwork for embracing AI, recognising its transformative potential across various sectors, including governance, healthcare, education, and transportation.

This initiative is part of a broader vision to position the UAE as a knowledge-based economy and a global innovation leader. In a pioneering move, the UAE established the world's first Ministry for Artificial Intelligence in 2018 (Dutton, 2018). Subsequently, the UAE began developing a national AI strategy and creating concepts to strengthen AI implementation (United Arab Emirates Minister of State for Artificial Intelligence Office, 2018). The Ministry of AI has set eight strategic objectives to establish a comprehensive support system by 2031, transitioning from a nation that introduces AI to one that builds and mainstreams it within its institutions and society. These objectives are:

1. Build a reputation as an AI destination
2. Increase the UAE's competitive assets in priority sectors through AI deployment
3. Develop a fertile ecosystem for AI
4. Adopt AI across customer services to improve lives and governance
5. Attract and train talent for future AI-enabled jobs

6. Bring world-leading research capability to work with target industries
7. Provide the data and supporting infrastructure essential to become a test bed for AI
8. Ensure strong governance and effective regulation

According to the United Arab Emirates Minister of State for Artificial Intelligence Office (2018), the national AI strategies are structured into three distinct levels:

1. **Foundation Level:** This foundational stage includes the essential elements needed to support AI development and implementation across various sectors. It focuses on establishing a conducive ecosystem for AI innovation, attracting and training talent for AI-enabled jobs, enhancing research capabilities, and providing necessary data and infrastructure to serve as a testing ground for AI technologies.
2. **AI Activity Level:** This level aims to advance the development and deployment of AI technologies in key economic and social sectors. It includes training initiatives for students, government employees, and the broader society to equip them with AI-related skills. The goal is to standardise AI work, enhance the UAE's competitiveness through AI, and foster an environment conducive to AI integration in all areas of customer care to improve governance and quality of life.
3. **Leadership Level:** This level focuses on establishing the UAE's reputation as a forward-thinking nation and achieving the vision of becoming a global leader in AI by 2031.

The UAE's National AI Strategy is a product of expert deliberations (United Arab Emirates Minister of State for Artificial Intelligence Office, 2018). Therefore, a thorough textual examination is suitable for analysing the portrayal of citizens and their participation within the strategy as a national discourse. This chapter aims to address the research question: How does the UAE's national AI strategy frame citizens and their participation in the context of AI development and deployment? The study explores the extent to which the strategy encourages or hinders citizen participation through the narratives it communicates, analysing how citizens are portrayed within the UAE's AI strategy and examining the implications of this portrayal for public engagement and governance.

The article proceeds by presenting the method used to analyse how the UAE's national AI strategy frames citizens and citizen participation. Next, we reflect on how each aspect (citizens/participation) is mentioned in the

UAE's national AI strategy, illustrating how it frames citizens and citizen participation to answer the aforementioned research question. Afterwards, we discuss the findings and conclude that it is also important to understand the approach adopted in developing national AI strategies.

2. Method

To understand how the UAE's national AI strategy frames citizens and their participation, we employed both qualitative and quantitative content analysis. The content analysis approach systematically examines the occurrence of specific words, themes, or concepts within qualitative data sets, such as texts from policy documents or media articles (Krippendorff, 2018; Mayring, 2004; Neuendorf, 2017). Our research aimed to uncover major narratives around citizens and participation within the strategy, assessing the emphasis or lack thereof placed on citizens and their participation. Through content analysis, we analysed the frequency and context of terms related to citizen participation within the UAE's National AI Strategy document. This method facilitates a deeper understanding of how certain subjects or themes are framed or emphasised within the document (Entman, 1996; Krippendorff, 2018; Mayring, 2004). In our case, we focused on citizens and their participation, providing insights into the strategy's stance and policy direction concerning AI and its societal implications. Using content analysis as the primary methodological approach in this article is considered suitable to answer the above-mentioned research question, as it helps analyse how a text constructs a shared vision of a phenomenon through a narrative, which also has the potential to shape public perception of the phenomenon (Entman, 1996; Krippendorff, 2018; Mayring, 2004).

In particular, we incorporated both quantitative and qualitative content analysis techniques to provide a comprehensive overview of how AI and citizen participation are framed within the UAE's strategy. We focused on both the quantification and contextual use of specific terms related to citizen participation in the UAE's AI national strategy document. This combination allows for measurable data analysis and deeper insight into the underlying contexts and meanings (Elo & Kyngäs, 2008; Krippendorff, 2018; Lombard et al., 2002; Mayring, 2004; Neuendorf, 2017). Quantitative content analysis was employed to quantify the frequency of specific keywords related to citizen participation within the UAE's National AI Strategy (Riffe et al., 2019). Beyond merely counting words, we also examined the

context and implications of how these terms are used within the document, incorporating qualitative content analysis techniques. Qualitative content analysis involves interpreting the meanings, themes, and patterns that emerge from the usage of these words (Elo & Kyngäs, 2008; Mayring, 2004). For instance, in this article, the application of this method revealed that the term 'citizen' is often associated with economic roles rather than political participation, indicative of the qualitative aspect of our analysis, as discussed in the following section.

The keywords used in the analysis were selected based on their relevance to the theme of citizen participation, informed by preliminary readings of the strategy and an understanding of common terms used in discussions about public participation and governance. The keywords include 'citizen(s)', 'people', 'public', 'society', 'participate/participation', and 'democratic/democracy'. An overview of the search results is presented in Table 1. The analysis in this research was initiated as part of a 2023 seminar on citizen participation in the age of digital innovation at Duisburg-Essen University, where students formed groups to analyse different national AI strategies. Collective discussions not only informed the analysis but also occasionally influenced the selection of keywords.

For the analysis, after the specific keywords related to citizen participation were identified, their context within the document was examined. We searched for these terms in the document and evaluated both the frequency and content of relevant text passages (see Bowen, 2009). Each occurrence of the keywords was analysed to capture the context and implications regarding citizen participation. This involved noting how often each keyword appears and the specific mentions that relate directly to the role of citizens in the AI strategy. Additionally, we analysed these keywords in reference to their quotes, delving deeper into the intended meaning and significance of those terms within the context of the text, taking into account any specific connotations or interpretations implied by their usage. For each keyword, the surrounding text was examined to understand the depth of citizen participation suggested – whether it indicates active participation, consultation, or mere information dissemination. Additionally, GPT (a generative pre-trained transformer) was employed after human analysis to validate the findings and assist in interpreting information about the UAE's national AI strategy in relation to citizen participation. This analysis allows us to gather insights into how citizen participation is conceptualised and represented within the UAE's National AI Strategy, providing valuable information

about the strategy's approach to engaging citizens in AI-related initiatives and its implications for governance and societal development.

Table 1. Citizen participation keywords search and results in the national AI strategy of UAE (Source: Authors)

Keyword	Number of mentions	Quotations
1. 'Citizen(s)'	5	• 'The UAE has a vision to become one of the leading nations in AI by 2031 in alignment with the UAE Centennial 2071, creating new economic, educational, and social opportunities for citizens, governments and businesses and generating up to AED 335 billion in extra growth'. (p. 7) • 'Objective 4 explains how the UAE will take steps to increase the amount of government experimentation with AI to improve the lives of its citizens'. (p. 13) • 'Government can play a strong role in making sure AI delivers the greatest public value, by making citizens safer, healthier and happier'. (p. 30) • 'The X-Road platform in Estonia supports access and a combination of government and private databases, setting the stage for the application of machine learning tools. The data solution saves citizens over 800 years of working time per annum'. (p. 40) • 'Europe's General Data Protection Regulation includes new rights for consumers; it provides an opportunity to re-consider how consumer data is handled, even for customers who are not European citizens'. (p. 41)
2. 'People'	5	• 'We will transform the UAE into a world leader in AI by investing in people and industries that are key to our success'. (p. 3) • 'Therefore, the mission for this first Ministerial term is to transform the UAE into a world leader in AI by investing in the people and industries that are key to the UAE's success'. (p. 10) • '60 million people pass through Dubai Airport each year; 26 million pass through Abu Dhabi Airport'. (p. 22) • 'Jebel Ali port is the largest marine terminal in the Middle East and provides market access to over 2 billion people'. (p. 22) • '40% of the UAE workforce has good digital skills. This is less than the 56% of people with good digital skills in the UK, the top rated-nation in the AI-Readiness Index'. (p. 32)

3. 'Public'	10	• 'Public debates about AI often focus on whether or not it could take over important human decisions: from whether we go to war, to who receives medication'. (p. 13) • 'The UAE public sector is already a leader in smart public service delivery:' (p. 13) • 'Publicly accessible AI courses have already begun with large tech partners (objective 5)' (p. 18) • 'The UAI will consist of four levels of approval to include Public Sector Level, Private Sector Level, Institutional Level, and Product Level'. (p. 20) • 'These proof-of-concepts could be designed by the public sector, private sector or consortia'. (p. 25) • •'Government can play a strong role in making sure AI delivers the greatest public value, by making citizens safer, healthier and happier'. (p. 30) • •'With around 70% of Emiratis employed in the public sector, retraining of government workers is particularly critical'. (p. 32) • 'This will have a major impact on the public sector workforce and needs to be carefully managed, with a 2016 survey of Emirati workers finding the ideal future role for 54% was one in administration, i.e. a role that may not exist in the future'. (p. 32) • 'Public AI Training: Free courses are being run for UAE residents to raise awareness and understanding of AI technologies'. (p. 33) • 'Given the public sector is a major employer and potential user of AI in the UAE, The AI Office has also started specific training for government employees'. (p. 33)
4. 'Society'	7	• 'The UAE has set priority sectors – these will be the focus of initial activities. This does not mean that the UAE will stop working on AI solutions in other sectors where AI can deliver other benefits to society'. (p. 10) • 'There continues to be a range of views about the prospects of AI, and many potential future scenarios for AI in the UAE societies'. (p. 14) • 'The UAE government will play a direct role in designing and enabling AI systems that create the most value for society (objective 4)'. (p. 14) • 'For example, a new cyber research centre in Stuttgart and Tubingen, Germany (the Max Planck Society's Institute for Intelligence Systems) attracted foreign investment from Amazon, leading to an estimated 100 jobs over the next five years'. (p. 28) • 'The AI Office will also want to recognise and reward AI research with the greatest value to society'. (p. 39) • •'Innovations in AI technology often require rapid changes in regulatory settings and can create risks to society'. (p. 42) • 'A natural evolution of the Roundtable is in the formulation of an intergovernmental body, dedicated to

		providing a mechanism for governments and private companies to better understand AI and its impact on societies in order to help give a solid framework for future regulation'. (p. 43)
5. 'Participate/Participation'	2	• 'The AI Office is offering more advanced courses for government employees starting Q4 2018, focused on skills needed to work with them being the AI experts (ambassadors) in their entities. These require participants to complete a capstone project related to their current job'. (p. 33) • 'A programme to attract key AI thinkers to visit the UAE will be initiated. These key AI thinkers will participate in workshops and lectures with local universities and businesses'. (p. 39)
6. 'Democracy/Democratic'	0	• No occurrences

3. Results

In this section, we present the findings from our exploration of how citizens were framed in the UAE's national AI strategy.

The term '**citizen**(s)' is mentioned five times in the UAE's NAS. In two of these instances, it is used in the context of discussing policies in other countries and thus does not directly refer to the citizens of the UAE (United Arab Emirates Minister of State for Artificial Intelligence Office, 2018, pp. 40–41). The other three examples illustrate the strategy's narrative regarding the role and position of citizens. For instance, the introduction of the document states the UAE's 'vision to become one of the leading nations in AI by 2031, creating new economic, educational, and social opportunities for **citizens**, governments, and businesses and generating up to AED 335 billion in extra growth' (p. 7). The quote from the UAE National AI Strategy clearly positions the deployment of artificial intelligence as a cornerstone of the country's future economic, educational, and social development. The strategy articulates a vision to transform the UAE into a leader in AI by 2031, a goal that aligns with the broader UAE Centennial 2071 ambitions. The focus on generating significant economic growth (up to AED 335 billion in extra growth) suggests a strong emphasis on AI as an engine for enhancing national prosperity. However, in terms of citizens and their participation, the quote doesn't explicitly mention how citizens will be involved in shaping or contributing to the AI initiatives. While it does indicate that the strategy intends to create opportunities for citizens, it doesn't

specify mechanisms for their direct participation in decision-making or the development process. The narrative seems to lean more towards the benefits that citizens will receive from the implementation of AI rather than how they might actively participate in the strategy's execution or governance.

The strategy's emphasis on economic growth and educational opportunities without explicitly detailing ways for citizens to participate in governance or decision-making processes suggests a primary focus on the economic contributions of citizens. This perspective sees citizens mainly as beneficiaries and participants in the economic progress powered by AI rather than as active political agents shaping the direction of AI policy and its societal implications. This perspective is further supported by the other two references to 'citizens' in the strategy, which highlight that 'government experimentation with AI can improve the lives of its **citizens**' (p. 13) and 'government can play a strong role in ensuring AI delivers the greatest public value by making **citizens** safer, healthier, and happier' (p. 30). Both quotes highlight a vision where the application of AI is leveraged as a strategic tool to enhance the welfare and quality of life of citizens, reflecting a proactive approach to utilising technology for societal benefits. The first quote suggests that through experimentation with AI, the government aims to improve the lives of its citizens, indicating a focus on practical, real-world applications of AI to solve everyday problems and enhance overall living conditions. This reflects a commitment to leveraging advanced technology to address societal needs, which can be seen as a proactive approach to governance in the Digital Age. The second quote builds on this by stating the government's role in maximising AI's public value, aiming to make citizens safer, healthier, and happier. This articulation positions the government as a steward of technology, responsible for guiding AI development to ensure it benefits the public. It underscores a commitment to ensuring that AI advancements align with the broader goals of public safety, health, and happiness rather than merely economic growth or efficiency. However, these quotes also indicate a top-down approach to AI implementation, where citizens are primarily seen as recipients of AI's benefits rather than active participants in its governance or development.

The examination of the word '**people**' as a possible synonym for 'citizens' contributes little to answering this question. Although the word 'people' appears five times in the strategy document, its usage is exclusively in economic contexts. Notably, the strategy twice mentions 'investing in the **people** and industries that are key to our success' (pp. 3, 10). Policy measures related to this goal include attracting leading AI researchers, businesses,

and innovators to the UAE (pp. 36–39), supporting AI-based projects in 'priority sectors' such as energy, logistics, and healthcare (pp. 22–25), and offering AI training for citizens so they can acquire the necessary skills for the future job market (pp. 32–35). While educating people on AI could be an important step toward more citizen participation, the strategy's primary motivation is to 'help them make better decisions in an economy where automation technologies enter the workplace' (p. 32). This statement suggests that citizens are primarily viewed as users/consumers of AI technologies. The strategy also refers to 'people' when discussing the country's role as a transit hub (p. 22) and the digital skills of the population (p. 32).

The term '**public**' (and variants) appears ten times in the document, six of which feature the phrase 'public sector' (plus another one referring to 'public service'). Most of these passages convey a similar message: the public sector needs to apply AI technologies to become more efficient, and its employees require training to adapt to the changing work environment (pp. 13, 30, 32, 33). Beyond public sector employees, the strategy also mentions that 'publicly accessible AI courses' open to all UAE residents have already been created with the goal to 'raise awareness and understanding of AI technologies' (pp. 18, 33). The emphasis on training and education in AI, as described in the strategy, may be more oriented towards harnessing economic growth potential rather than constituting a comprehensive approach to citizen outreach. The strategy's emphasis on enhancing public sector efficiency and providing AI education to boost skills aligns more closely with economic objectives rather than fostering broad-based citizen participation in policy development or decision-making processes. This focus reflects a drive to position the UAE as a leader in AI technology, which is expected to contribute significantly to economic development. While the provision of publicly accessible AI courses does indicate an element of outreach, the lack of mechanisms for citizens to engage meaningfully in shaping AI policies could imply that these efforts are more about preparing the workforce for an AI-driven economy rather than empowering citizens as active stakeholders in the AI discourse. Thus, it can be argued that the strategy, as it stands, leans more towards leveraging AI for economic benefits rather than cultivating a comprehensive, participatory approach to citizen engagement in AI governance.

Additionally, the word '**society**' appears seven times in the document, one instance of which can be disregarded as it refers to the German Max Planck Society (p. 28). The other six instances are similar in one important aspect: they do not portray society as an actor. Instead, there are three pas-

sages stating that AI can bring 'value to society' (pp. 14, 39) or 'benefits to society' (p. 10), one passage mentions 'risks to society' (p. 42), and another stresses the need to 'better understand AI and its impact on societies to help provide a solid framework for future regulation' (p. 43). The discussions of benefits and risks to society in the UAE's AI strategy remain abstract, with specific examples largely absent. This approach further underscores the emphasis on the economic impact of AI while potentially overlooking the broader political implications and the need for citizen involvement in shaping AI governance. It suggests a framing where society is viewed more as a recipient of AI outcomes rather than as an active participant or contributor in shaping AI policies.

While the term **'democracy'** (and its variants) is not featured at all in the strategy, the word **'participation'** (including its variants) is used only two times in the document: once in reference to training for government employees (United Arab Emirates Minister of State for Artificial Intelligence Office, 2018, p. 33) and once regarding AI research workshops and conferences (p. 39). The two quotes from the UAE National AI Strategy provide insights into the strategy's focus on developing AI expertise and cultivating a knowledge base within the country. However, they also reflect a specific framing of citizen participation in the AI landscape, which seems limited to certain segments of the population.

The first quote highlights an initiative aimed at training government employees to become AI experts within their respective entities. This is a strategic move to embed AI knowledge and capability directly into government operations, ensuring that the public sector is equipped to leverage AI technologies effectively. The requirement for a capstone project that relates to their current jobs suggests an applied learning approach, where government employees not only learn about AI but also implement AI solutions within their roles. While this enhances the capabilities of government workers and integrates AI into public administration, it does not explicitly extend AI education or participation opportunities to the general public or broader citizenry.

The second quote focuses on attracting AI thinkers and describes a programme designed to attract international AI experts to the UAE. These experts are expected to engage with local universities and businesses through workshops and lectures, which can foster a vibrant AI ecosystem and stimulate local innovation. This approach is beneficial for academic and business communities, but again, the focus is more on elite or professional circles rather than the general citizenry. The strategy, as outlined in this

quote, focuses on enhancing expertise and networking at a high level without direct involvement from the broader public.

These initiatives suggest that the UAE's AI strategy is oriented towards creating a highly skilled workforce and an elite cluster of AI professionals, which can drive the country's ambitions to become a leader in AI technology. However, they also indicate a top-down approach where citizen participation in AI development is limited to specific professional groups (government employees, academics, business leaders). The broader public seems to be more of a recipient of the benefits of these initiatives rather than an active participant in shaping AI policy or contributing to the AI discourse. The strategy's focus on professional development and international collaboration is crucial for achieving technological advancement and economic growth, but there could be a greater emphasis on inclusive policies that engage all levels of society. This approach could include more public education initiatives, open forums for policy feedback, and mechanisms that encourage citizen input in shaping how AI is integrated into daily life and governance. Such inclusive approaches would not only democratise the benefits of AI but also ensure that its implementation reflects the diverse needs and values of all citizens.

The UAE National AI Strategy, while ambitious in leveraging AI to drive economic, educational, and social advancements, predominantly positions citizens as beneficiaries rather than active participants in the AI-driven transformation. The strategy details specific training for government employees and initiatives to attract global AI experts, with an emphasis on professional development and international collaboration aimed at economic growth. However, it largely overlooks broader citizen involvement in decision-making processes and public discourse on AI policy. The strategy's focus is on enhancing sectoral efficiency and individual skill sets in alignment with AI advancements, yet it lacks concrete mechanisms for inclusive citizen engagement, which could otherwise enrich the policymaking process and ensure that AI development aligns with the wider societal needs and democratic values. The limited portrayal of citizens as active stakeholders in shaping AI policy underscores a need for a more participatory approach that embraces all segments of society, ensuring that AI benefits are not only received but also shaped by citizens.

In sum, we can draw two main conclusions from our analysis. First, the primary focus of the UAE's AI strategy appears to be boosting economic growth, with citizen engagement and participation largely side-lined. Secondly, when citizens or society are mentioned in the document, they are

depicted as workers, users, or consumers rather than as political actors capable of voicing their opinions and holding the government accountable.

4. Discussion: The passivisation of citizens through the use of technology

The above analysis uncovers insights about how citizens are envisioned within the strategy as passive recipients rather than active participants. In essence, the strategy acknowledges the profound implications of AI for society but does not detail mechanisms through which society could actively participate in the AI discourse, decision-making process, or the AI life cycle. The strategy highlights the positive outcomes of AI for citizens but does not explicitly address how citizens can influence or participate in decision-making processes regarding AI use. This situation might suggest that the strategy envisions a model where the government dictates the trajectory of AI development and deployment, with society and citizens playing a more passive role. For example, the strategy's references to AI bringing 'value' and 'benefits' to society, while positive, depict society as a passive entity merely receiving the advantages generated by AI technologies. Similarly, mentions of 'risks to society' position society as a potential victim of AI's negative impacts rather than as an engaged stakeholder in mitigating these risks. Additionally, the call to 'better understand AI and its impact on societies' (p. 34) in the strategy to inform future regulation acknowledges the need for informed governance structures. However, this does not explicitly suggest a role for society in the regulatory process. Simultaneously, while the strategy positions citizens as central to its success through their roles in the AI-enhanced economy, it appears to limit their participation to the roles of users and beneficiaries of AI technology rather than as co-creators or governors of AI policy. Therefore, the framing of citizens and their participation in the UAE strategy suggests a top-down approach where citizens are positioned as beneficiaries rather than active participants. This approach could impact the public's perception and reception of AI initiatives, influencing the degree to which AI technologies are accepted and integrated into society.

Therefore, the strategy's language suggests a view of society as an external entity to be protected and benefitted rather than as a collaborative partner in the AI development process. This interpretation could imply a need for the strategy to evolve towards more inclusive governance models that actively involve various societal stakeholders, not only as beneficiaries but

also as participants in shaping AI's integration and regulatory frameworks. This inclusion could help ensure that AI developments align more closely with societal needs, values, and aspirations, creating a more dynamic and participatory approach to AI policy and implementation.

Reflecting on this, future iterations of the strategy should include clearer roles for citizen engagement and participation to ensure that AI development aligns with the public's needs and values, thus fostering a more inclusive AI-driven future. Ultimately, while the government plays a central role in driving the UAE National AI Strategy, achieving its objectives requires collaboration and participation from all segments of society. By fostering a culture of inclusivity, transparency, and accountability, the UAE can harness the full potential of AI technologies to promote sustainable development, economic prosperity, and societal well-being for all its citizens. For a more holistic and participatory approach, future iterations of the strategy could benefit from including mechanisms for citizen engagement in AI governance, ensuring that AI development not only serves but also reflects the public's needs and values.

The view of citizens as mere recipients suggests passivity, focusing on the idea of receiving outcomes or benefits without participating in their creation. In fact, achieving successful AI implementation in the public sector requires a collaborative effort between public authorities and civilians (European Commission, 2018; AGID, 2018). This emphasises that citizens are at the end of decisions, merely benefiting from or suffering the consequences of policies they had no hand in shaping. The current language underscores the unilateral nature of decision-making and implies that actions are done for or to the citizens, who have little to no role in influencing those actions.

Given the two main conclusions outlined previously – the UAE's AI strategy's primary focus on economic growth with limited emphasis on broader citizen engagement and participation and the frequent depiction of citizens more as workers, users, or consumers rather than active participants in decision-making – it appears that the strategy contributes to a passive role for citizens regarding their engagement with technology. The strategy's emphasis on economic growth and the utilisation of AI technologies primarily position citizens as recipients or end-users rather than active contributors or decision-makers. This approach to technology use effectively passivises citizens, limiting their role to that of beneficiaries who do not actively participate in shaping the technological landscape or policies. This finding highlights how AI and technology generally have the

potential to be used to reduce the active role of individuals in shaping policies or technological deployments, relegating them to more passive roles as recipients or end-users without significant influence or control. This suggests a critical view of how technology, while potentially empowering, can also be structured to limit public engagement and maintain control within a select group of decision-makers.

Hence, we posit that this process can be seen as '**digital passivisation**', a concept that can describe a scenario where citizens are increasingly placed in passive roles within digital strategies, initiatives, and solutions. It refers to situations where technology is implemented in ways that do not actively involve citizens in decision-making processes, treating them not as active agents but as recipients or end-users of the technology without significant input or control. This concept highlights a shift from active participation to passive reception in the context of digital transformation, particularly in how citizens interact with and influence public policies or technological developments. In the context of a national AI strategy, 'digital passivisation' would emphasise how the deployment of AI technologies and related policies might be structured to keep citizens at the margins of influence, focusing instead on economic growth or other objectives where citizen input is minimal or largely ceremonial.

As AI becomes increasingly pervasive in various aspects of daily life, efforts to engage citizens in discussions about AI governance, ethics, and societal impacts become imperative. Empowering individuals with knowledge about AI technologies and involving them in dialogues about its implications can help cultivate a more informed and inclusive approach to AI governance as well as reduce the intensified digital divide. This strategy may involve initiatives such as public consultations, citizen forums, and educational campaigns aimed at raising awareness and fostering dialogue around AI-related issues throughout the AI life cycle (see De Silva & Alahakoon, 2022). Future research could utilise critical discourse analysis to explicate the power dynamics in the development of the AI strategy and, more importantly, the elements of power (e.g. between the government and citizens) embodied in the language of the strategy. Highlighting 'power' as the focal point in the analysis would aid in reflecting on the political consequences of the strategy.

5. Conclusion

The analysis of the UAE's national AI strategy reveals a predominant focus on economic growth, positioning citizens primarily as beneficiaries rather than active participants in the AI-driven transformation. The strategy emphasises enhancing sectoral efficiency and individual skill sets in alignment with AI advancements but lacks concrete mechanisms for inclusive citizen engagement. This limited portrayal of citizens as active stakeholders in shaping AI policy underscores a need for a more participatory approach that embraces all segments of society.

Two main conclusions can be drawn from the analysis. (1) Economic Focus: The primary focus of the UAE's AI strategy is on boosting economic growth, with citizen engagement and participation largely sidelined. The strategy highlights the benefits AI can bring to society, but these are often framed in terms of economic contributions rather than political or participatory roles for citizens. (2) Citizens as Beneficiaries: When citizens or society are mentioned, they are depicted more as workers, users, or consumers rather than political actors capable of influencing decisions and holding the government accountable. This perspective suggests a top-down approach where citizens are positioned as recipients of AI benefits rather than active participants in its governance or development.

The concept of digital passivisation is introduced to describe this phenomenon, where technology is implemented in ways that do not actively involve citizens in decision-making processes, treating them as passive recipients of the technology. This approach can limit public engagement and maintain control within a select group of decision-makers, emphasising economic growth over democratic participation.

To foster a more inclusive AI-driven future, the strategy should evolve to include clearer roles for citizen engagement and participation, which could involve public consultations, citizen forums, and educational campaigns aimed at raising awareness and fostering dialogue around AI-related issues. By empowering individuals with knowledge about AI technologies and involving them in discussions about its implications, the UAE can ensure that AI development not only serves but also reflects the public's needs and values. This approach would help bridge the digital divide and create a more dynamic and participatory AI policy framework.

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