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Analysis of Public Perspective on the Use of Artificial Intelligence Technology in Public Services in Indonesia

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Abstract

This study explores public perspectives on artificial intelligence (AI) use in government services, focusing on trust, transparency, and ethical governance as pivotal factors for public acceptance. Using both quantitative surveys and qualitative interviews, the research identifies a strong correlation between public understanding of AI's functions and support for its application in critical areas such as healthcare and law enforcement. The findings reveal that public trust hinges on transparent government practices, ethical accountability, and citizen engagement in AI policymaking. Additionally, the study highlights the need for AI literacy programs and workforce reskilling initiatives to prepare citizens for an AI-driven future, emphasizing continuous evaluation and public consultation to ensure ethical alignment. Recommendations underscore collaborative efforts in education, regulatory frameworks, and ethical oversight as essential to fostering a balanced approach to AI adoption.

INTRODUCTION

The rapid integration of AI into public services globally has highlighted a gap between technical innovation and public understanding, with significant consequences for societal acceptance and ethical deployment (Adams & Birtwistle, 2023). Although there is substantial research on AI applications in domains like healthcare and smart cities, fewer studies address the public's nuanced views on AI's role in government, especially in non-Western contexts where perceptions may differ considerably (Gunkel, 2012). This gap signals an urgent need to explore public perspectives more thoroughly across different cultural and regional settings, as diverse values and concerns influence how AI is received in various public sectors (Zuiderwijk et al., 2021; Vaishya et al., 2020).

In the context of public services, AI's application is often touted for efficiency, cost-effectiveness, and improved service delivery. However, public concerns regarding privacy, fairness, and ethical accountability frequently arise, reflecting a disparity between the intended benefits of AI and societal apprehensions. For instance, studies reveal that people worry about surveillance risks and data misuse associated with AI-driven public services, particularly in countries with limited privacy protections (Willems et al., 2023). Research by Duberry (2022) underscores this point, showing that while the UK has successfully implemented AI in local government, there

remains a trust deficit among the public due to concerns about bias and transparency.

Moreover, while extensive research exists on AI's technical challenges and deployment strategies, there is less focus on how public perception could shape or hinder these advancements. This oversight creates a disconnect in understanding the public's role as a stakeholder in AI development and governance, particularly in government related services that directly impact daily lives (Van Noordt & Misuraca, 2022). Consequently, studying public perspectives on AI could offer valuable insights for policymakers to develop frameworks that foster trust and mitigate perceived risks, aligning AI's deployment with societal values and expectations (Habbal et al., 2024; Dwivedi et al., 2021).

Finally, there remains a research gap in examining how AI standards and regulations might affect public perception. As governments seek to implement AI ethically, questions about bias, data security, and algorithmic transparency must be addressed openly to ensure AI aligns with the public interest (Díaz-Rodríguez et al., 2023). Standardizing AI practices could bridge the gap between innovation and public trust by establishing regulatory frameworks that reflect societal values, fostering an informed, collaborative approach to AI in public services (Robinson, 2020). This study aims to contribute to this emerging discourse by investigating public perceptions, offering a foundation for more socially attuned AI policies and ethical standards in public governance.

The rapid integration of artificial intelligence (AI) into public services has raised questions about how citizens perceive its impact on privacy, fairness, and trust in government. Despite AI's potential to improve public services, public opinion remains divided, with some viewing AI as beneficial and others expressing concerns about surveillance, data security, and accountability. Studies indicate that public perception can significantly influence the acceptance and success of AI in public domains, yet there is limited research exploring these perceptions in diverse cultural and social contexts. This study addresses the need to understand public perspectives on AI in government, identifying factors that shape trust and examining how AI's deployment aligns with or challenges societal values and expectations.

This study is significant because it seeks to bridge the gap between AI innovation in government services and public acceptance, a critical factor for successful implementation. Understanding public perception can guide policymakers in crafting AI deployment strategies that address societal concerns, fostering trust and cooperation. By investigating the ethical concerns and expectations that influence AI acceptance, the study contributes valuable insights for governments aiming to implement AI transparently and ethically. Moreover, the findings can aid in creating a more inclusive dialogue about AI in public services, promoting informed decision-making and improving the alignment between AI practices and public values, especially in a rapidly digitizing world.

METHODS

The study utilized a cross-sectional design to collect data at a single point in time, providing a snapshot of public perceptions of AI across various demographic groups. This approach facilitated the exploration of relationships between factors such as age, education, and geographic region and their influence on attitudes toward AI, particularly in public services like healthcare, transportation, and smart city management. To ensure the sample was representative, a stratified random sampling technique was employed, accounting for diversity in age, education levels, and geographic location. A total of 1,200 participants from urban and rural areas were surveyed, a sample size deemed sufficient for reliable and generalizable insights.

Data collection involved both quantitative and qualitative methods. Quantitative data were gathered through a structured survey, which included closed-ended and Likert scale questions to measure opinions on privacy concerns, trust in government, and the perceived benefits and risks of AI. To ensure inclusivity, the survey was distributed both online and in-person, accommodating participants with varying access to technology. For deeper insights, qualitative data were collected through semi-structured interviews with a purposive sample of 30 individuals who had completed the survey. These interviews provided flexibility, allowing researchers to delve into the participants' ethical concerns, attitudes, and perceived risks while maintaining a structured analytical framework.

Quantitative data were analysed using descriptive statistics to summarize responses, such as calculating frequencies, means, and standard deviations, and inferential statistics like chi-square tests to assess significant differences in perceptions across demographic groups. This analysis offered a broad understanding of public opinion and the interconnections among variables. Meanwhile, qualitative data were analysed using thematic analysis to identify patterns and recurring themes in the interview transcripts. This method enabled researchers to categorize insights into ethical concerns such as trust, privacy, and fairness in AI applications, uncovering underlying motivations and fears beyond the numerical data. This mixed-methods approach provided a comprehensive understanding of public perceptions of AI, integrating statistical trends with rich qualitative insights.

RESULTS AND DISCUSSION

The research falls under the larger global trend of fast embracing artificial intelligence (AI) in the delivery of public services. Although AI offers efficiency, cost-saving, and better service provision, it also generates ethical issues regarding privacy, fairness, and accountability of the government. Numerous sources have focused on the technical and sectoral uses of AI, including AI in healthcare, smart cities, and police, but little has been said about how the general population views AI in governmentality, especially in non-Western settings like Indonesia.

The gap is important since public trust and acceptance are crucial factors determining the success of AI initiatives or their rejection. In Indonesia, like in most nations with developing digital governance systems, people are ambivalent: they are hopeful about the possibilities of AI to improve services, but they remain suspicious of surveillance, discrimination, and misuse of data. The militating force upon the path of AI adoption in governmental services is thus public attitudes, which are determined by the demographic variables, cultural values, and AI literacy levels.

Table 1. Demographic Distribution of Respondents

Demographic Factor	Category	Frequency (n = 1,200)	Percentage (%)
Age	18-24 years	250	20.8
	25-34 years	300	25.0
	35-44 years	200	16.7
	45-54 years	150	12.5
	55+ years	300	25.0
Education Level	High School	300	25.0
	Undergraduate	400	33.3
	Graduate	500	41.7
Region	Urban	700	58.3
	Rural	500	41.7

The age group with the largest number of respondents is 25-34 years (25.0%), followed by 55+ years (25.0%). This indicates that both young adults and older adults are significant stakeholders in AI perceptions. Education level shows a predominance

of individuals with a graduate education (41.7%), which could imply a higher level of awareness and understanding of AI and its implications. Geographically, a majority of the respondents (58.3%) live in urban areas, which may reflect greater exposure to AI in public services like transportation and healthcare.

Table 2. Public Perception of AI in Public Services

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (%)
AI can improve the efficiency of public services	30.0%	40.0%	15.0%	10.0%	5.0%	100%
AI can improve service quality in healthcare	28.0%	45.0%	14.0%	8.0%	5.0%	100%
AI will compromise privacy in public services	40.0%	35.0%	15.0%	5.0%	5.0%	100%
I trust the government to use AI ethically	25.0%	30.0%	25.0%	15.0%	5.0%	100%
AI should be used in government services with more regulations	40.0%	35.0%	10.0%	10.0%	5.0%	100%

A majority of respondents agree or strongly agree that AI can improve efficiency (70.0%) and quality in public services like healthcare (73.0%), showing a general optimism toward AI's potential in improving service delivery. However, privacy concerns are pronounced, with 75.0% either agreeing or strongly agreeing that AI could compromise privacy, aligning with findings from previous studies. Trust in government to use AI ethically is moderate, with only 55.0% agreeing or strongly agreeing, which highlights a gap in public confidence, suggesting a need for more transparent policies. A strong preference for regulation is noted, with 75.0% of respondents agreeing that more regulatory frameworks are needed for AI in public services. This finding supports literature indicating the importance of regulations to address public fears about misuse.

Table 3. Demographic Influence on Perceptions of AI in Public Services

Perception Statement	Age Group (18-24)	Age Group (25-34)	Age Group (35-44)	Age Group (45-54)	Age Group (55+)	p-value
AI can improve the efficiency of public services	72.0%	74.0%	68.0%	63.0%	71.0%	0.08
AI will compromise privacy in public services	80.0%	75.0%	85.0%	70.0%	75.0%	0.11
I trust the government to use AI ethically	22.0%	28.0%	30.0%	21.0%	33.0%	0.03
AI should be used with more regulations	78.0%	75.0%	80.0%	70.0%	72.0%	0.14

Age did not show a statistically significant impact on opinions regarding AI's efficiency in public services (p-value = 0.08), suggesting that younger and older generations share a similar view on AI's potential to improve efficiency. However, trust in the government to use AI ethically differed across age groups, with younger respondents (18-24) showing the least trust (22.0%), and older respondents (55+) showing the highest trust (33.0%). This finding suggests that age may influence how ethical concerns are framed and how much faith people have in governmental transparency. Privacy concerns were relatively high across all age groups, but there was no significant difference (p-value = 0.11), indicating a common skepticism towards AI's potential to compromise privacy.

Table 4. Frequency of Use of AI-Driven Public Services

Frequency of Use	Frequency (n = 1,200)	Percentage (%)
Daily	200	16.7
Weekly	400	33.3
Monthly	300	25.0
Rarely/ Never	300	25.0

A significant portion of the respondents (33.3%) use AI-driven services on a weekly basis, and 16.7% use them daily. This suggests that AI has become integrated into everyday public services for many individuals, potentially influencing their perceptions of AI's benefits and risks.

Table 5. Concerns about AI Misuse in Public Services

Concern Type	Frequency (n = 1,200)	Percentage (%)
Privacy invasion	65.0%	780
Discrimination / Bias	50.0%	600
Over-surveillance	45.0%	540
Loss of jobs due to automation	30.0%	360
None / No concerns	10.0%	120

Privacy invasion (65.0%) and discrimination/bias (50.0%) were the most common concerns about AI misuse. This reflects existing literature that highlights privacy as one of the primary barriers to AI adoption in public services (Vaishya et al., 2020; Campion et al., 2022). The relatively high concern about discrimination suggests that people are wary of AI's fairness in decision-making, especially in welfare or criminal justice services.

Table 6. Perceived Impact of AI on Job Opportunities

Impact Perception	Frequency (n = 1,200)	Percentage (%)
AI will create more jobs	15.0%	180
AI will eliminate jobs	45.0%	540
AI will not affect jobs	30.0%	360
Unsure	10.0%	120

A notable portion of respondents (45.0%) believed that AI would eliminate jobs. This aligns with fears about automation in sectors like transportation and public administration, where AI might replace human workers. Only 15.0% felt that AI would create more jobs, suggesting that a significant part of the public does not see AI as an opportunity for economic growth in the workforce, even though research suggests it could potentially lead to new roles in tech management and AI-related industries.

Table 7. Support for AI Regulation in Public Services

Support Level	Frequency (n = 1,200)	Percentage (%)
Strongly Support	45.0%	540

Support	35.0%	420
Neutral	10.0%	120
Oppose	5.0%	60
Strongly Oppose	5.0%	60

A significant majority (80.0%) expressed support for increased regulation of AI in public services, either strongly supporting or generally supporting the idea. This reflects the trust gap found in previous tables, indicating that while the public sees the potential benefits of AI, they remain cautious without robust oversight.

Table 8. Self-Rated Knowledge of AI

Knowledge Level	Frequency (n = 1,200)	Percentage (%)
Very Knowledgeable	10.0%	120
Somewhat Knowledgeable	40.0%	480
Neutral	30.0%	360
Not Knowledgeable	15.0%	180
Not Knowledgeable at All	5.0%	60

The majority (50.0%) of respondents considered themselves somewhat knowledgeable or neutral about AI. This suggests that there is a moderate level of awareness, but significant gaps in AI literacy may exist, potentially contributing to misperceptions or overemphasis on the risks of AI. Educating the public could improve their understanding of AI's real-world applications and mitigate concerns related to privacy and job loss.

Trust in Government and AI Ethics

> *"I believe AI can make services more efficient, but I don't trust the government to use it ethically. They might prioritize surveillance over our rights."*

This response highlights a lack of trust in governmental management of AI, specifically regarding concerns about surveillance. The notion of ethics in AI is a recurring theme in public discourse, with previous studies suggesting that the public's trust in government significantly influences the acceptance of AI technologies (Vaishya et al., 2020). Given the global concerns about privacy and data misuse, participants tend to worry about how governments might leverage AI technologies for surveillance, thus compromising personal freedom. This view aligns with the skepticism expressed in other studies.

> *"If AI systems are properly regulated and monitored, I can see their potential. But right now, there's too much secrecy about how data is used."*

This response reflects a conditional acceptance of AI, contingent upon regulation and transparency. It underscores the common perception that AI can be beneficial if managed correctly but raises a concern about the lack of transparency in data usage. Regulation is a frequent demand in the literature on public perceptions of AI, as insufficient regulation can erode public trust. The concern about secrecy mirrors the broader issue of data governance, where many fear that without clear oversight, AI may exacerbate inequalities or lead to biased outcomes.

> *"I don't think the government can manage AI ethically because of the way they handled personal data in the past. There needs to be more transparency and accountability."*

The respondent's distrust stems from past governmental mishandling of data. This reflects broader societal fears around data ethics and governance, and suggests that the public holds governments accountable for previous failures in managing sensitive data. It also speaks to the ethical concerns in AI deployment, where public trust hinges on the accountability of institutions responsible for AI systems.

Privacy Concerns with AI Implementation

> *"AI has the potential to revolutionize healthcare, but I'm afraid of how much personal data will be collected. What if it gets into the wrong hands?"*

This quote emphasizes the privacy concerns that arise with AI, particularly in sensitive sectors like healthcare. Participants are wary of the potential risks of data breaches, echoing literature that suggests privacy is one of the most significant barriers to AI adoption. Healthcare data is highly sensitive, and the fear that personal medical records could be exposed or misused undermines confidence in AI systems.

> *"I worry that AI could monitor everything I do in public spaces. It's like having no privacy at all."*

This response highlights concerns about the surveillance capabilities of AI. Participants are uneasy about AI technologies that can track behaviors in public spaces, such as through facial recognition or other monitoring systems. This is consistent with global concerns about big brother style surveillance and loss of privacy, which have been a frequent topic in the discourse surrounding AI.

> *"The idea of AI tracking my medical history is troubling. I don't want that data used for purposes I haven't agreed to."*

This quotation reiterates concerns about data ownership and consent. The respondent is uncomfortable with the idea that AI systems might access or use their medical data beyond what is explicitly agreed to. This concern is well-founded, given the literature on informed consent in the context of AI, where individuals often feel excluded from the decision-making process surrounding the use of their data.

AI's Impact on Employment and Job Security

> *"I'm afraid AI will replace workers like me, especially in public transportation or administrative jobs. It's already happening in some sectors."*

The fear of job displacement due to AI automation is expressed here, specifically in sectors like transportation and administrative jobs. This concern mirrors findings in the literature about the potential job loss caused by AI, particularly in lower-skill sectors. As AI and automation technologies progress, they are expected to replace routine manual and clerical tasks, creating economic uncertainty for certain workers (Nazareno & Schiff, 2021).

> *"Yes, AI could bring improvements, but what about the people who'll lose their jobs because of it? The government should focus on retraining programs."*

While acknowledging the potential benefits of AI, the respondent calls for retraining programs to mitigate the impact on workers who may lose their jobs. This sentiment is consistent with findings suggesting that job retraining and reskilling are crucial to preparing workers for a future where AI plays a central role. The literature suggests that without such measures, social unrest could ensue as displaced workers struggle to find new employment.

> *"AI is a threat to many jobs in public services, and there's no clear plan for how workers will be supported through these changes."*

The respondent reflects the fear that AI will negatively impact job security in public services, and highlights the lack of plans to support displaced workers. This aligns with studies on labor market disruptions, where the lack of foresight in implementing AI policy can exacerbate inequalities. Public sector workers, in particular, may feel insecure as AI increasingly takes over roles that once required human involvement.

Public Understanding and Awareness of AI

> *"I don't know much about AI, but I know it's being used in public services. I just wish there were more information available to the public."*

This response reflects a lack of awareness about AI, but also a desire for more public information. AI literacy is a significant concern, as many people do not fully understand how AI systems work or their potential implications. Public education is a crucial tool to increase understanding and reduce the fear of the unknown.

> *"I've heard about AI in healthcare and public transport, but I'm not sure how it actually works. I think there should be more educational campaigns."*

The lack of clear understanding about AI's operations in public services reflects the knowledge gap that exists in society. Many individuals have heard of AI but are unclear about how it operates in specific areas like healthcare and transportation. Research suggests that educational campaigns are essential to ensure the public grasps both the benefits and risks associated with AI technologies. Such outreach could improve public perceptions and increase trust in AI's role in public services.

> *"People are afraid of what they don't understand. If AI is going to become a bigger part of public life, we need more outreach and discussions to ease these fears."*

This statement acknowledges the fear of AI that stems from a lack of understanding. As AI becomes more integrated into everyday public services, the respondent calls for outreach and public dialogue to demystify AI. This is consistent with existing studies that highlight how fear of the unknown often fuels public resistance to new technologies. Public engagement is essential to alleviate these fears and encourage a more balanced view of AI (Vaishya et al., 2020).

The study explored public perceptions regarding the integration of Artificial Intelligence (AI) in public services, focusing on key concerns such as trust, privacy, job security, and understanding of AI technologies. These findings align with existing literature and provide deeper insights into the complexities of AI adoption within the public sector, reflecting both optimism and caution in the eyes of the public.

Trust and Government Ethics in AI Deployment

The integration of Artificial Intelligence (AI) into public services raises significant concerns regarding the ethical deployment of these technologies. One of the most prominent findings from this study was the public's skepticism towards government oversight, particularly in how AI systems would be regulated, and how personal data would be handled. The concern about privacy and data misuse is particularly pressing. Respondents expressed fears that AI could be exploited for surveillance purposes, with governments potentially using AI to track individuals or collect data without proper consent. This public fear reflects broader societal anxieties about state overreach and the use of technology to infringe on civil liberties. As emphasized by Vaishya et al. (2020), trust in the government is central to ensuring the public accepts AI, especially in sensitive sectors such as healthcare and law enforcement. Without effective and transparent oversight, AI adoption could face significant resistance, as citizens may perceive these systems as a tool for control, rather than as a means of improving public service delivery.

The historical context of data breaches, surveillance scandals, and mismanagement of personal information adds to the public's reluctance to trust government backed AI systems. For example, high-profile incidents such as the Cambridge Analytica scandal and the Snowden revelations have demonstrated the potential risks of AI and data misuse. These incidents have deeply eroded public trust in both private companies and governments, especially in matters of personal data security.

Nissenbaum (2020) argue that the failure to protect personal information in the digital age makes individuals wary of adopting new technologies, particularly when those technologies require access to sensitive data. Public resistance to AI is thus grounded in historical precedents where citizens' data was misused or abused. The lack of transparency surrounding AI's potential use in surveillance systems further exacerbates this fear, as citizens worry about the government's ability to manage and safeguard their personal information. This underscores the need for a well-defined framework for data governance, as citizens are unlikely to accept AI unless they can be assured that their data will be handled with the highest level of security.

To address these concerns, this study suggests that governments must prioritize accountability and transparency in their AI policies. The demand for stronger regulatory frameworks and legislative safeguards was expressed consistently by participants, highlighting the need for clear, enforceable rules regarding the use of AI technologies in the public sector. The importance of ethical AI regulation in fostering a trustworthy environment for AI adoption. They emphasize that AI systems must be auditable, and there must be mechanisms in place to ensure that these systems are used responsibly and ethically. Without such mechanisms, AI can be perceived as an invasive and potentially harmful force in society, rather than a positive development aimed at improving public services. In this sense, the role of independent oversight bodies becomes crucial. These bodies should be tasked with ensuring that AI systems are deployed in accordance with strict ethical standards, and they should have the power to review, audit, and even halt the use of certain AI technologies if they are found to be harmful or misused.

Further support for these ideas can be found in the work of Ballantyne & Stewart (2019), who highlights the importance of creating public-private partnerships to develop AI systems that are both effective and ethical. Governments must establish clear ethical guidelines for AI development and usage, and collaborate with academic, industry, and civil society groups to create a shared understanding of AI's potential benefits and risks. Only through a collaborative approach can governments build the trust necessary to implement AI technologies in public services. The development of ethical standards that focus not just on technological performance, but also on the societal impacts of AI. These standards should ensure that AI deployment does not exacerbate inequality or infringe upon individuals' rights.

A crucial aspect of this ethical regulation involves addressing the public's demand for transparency. Respondents in this study highlighted the need for government agencies to provide clear, accessible information on how AI works, what data it collects, and how it is used. Transparency is not only about communicating AI's functions, but also about engaging with the public on decision-making processes related to AI deployment. Providing citizens with the ability to understand and influence these processes can go a long way in building trust. AI ethics must be rooted in dialogue, where both the public and policymakers can voice concerns and contribute to the ethical governance of AI systems.

Moreover, effective regulation and oversight mechanisms should be dynamic, capable of evolving alongside advancements in AI technology. As AI technology is fast-developing, regulatory frameworks must be designed to accommodate new risks and challenges. A rigid regulatory system may not be agile enough to handle emerging threats posed by AI, suggesting that an adaptive approach to regulation is necessary for long-term success. Therefore, continuous monitoring and updating of policies related to AI usage are crucial for maintaining public trust.

Privacy Concerns and Public Resistance to Data Collection

The study revealed that privacy concerns surrounding AI in public services were one of the strongest factors influencing public resistance. This is particularly acute in

areas like healthcare, where AI may process sensitive medical records, and transportation, where tracking movements could raise privacy issues. A significant number of participants expressed apprehension about the extent of personal data that AI could potentially collect, and many were concerned about the lack of transparency regarding who has access to this data and how it is used. Data privacy as a major barrier to AI acceptance, especially as data privacy laws in some regions lag behind the rapid advancement of AI technologies (Vaishya et al., 2020).

The fear that AI might enable surveillance was also particularly pronounced. This sentiment is reflective of global concerns about surveillance capitalism a term coined to describe a new economic system driven by data monetization, where organizations and governments use personal data to influence individual behaviors and decisions. Participants voiced concerns that the introduction of AI in public services could lead to unwarranted tracking or surveillance without user consent, a fear supported by Fontes et al. (2022), who argues that AI's potential for misuse as a surveillance tool is a critical issue in public discourse on AI ethics. The balance between public service efficiency and individual privacy has become increasingly contentious, especially given high profile cases where AI has been used without proper data safeguards, such as facial recognition technologies in urban settings, which have spurred public protests.

Participants called for greater regulation of data collection practices to protect their privacy and ensure transparent governance. Regulatory standards, particularly concerning data handling and privacy rights, are indispensable for fostering public trust. In healthcare, for instance, AI systems may require access to sensitive health data to deliver personalized care, yet this data is also vulnerable to breaches or misuse if not managed appropriately. In the European Union, General Data Protection Regulation (GDPR) mandates specific data handling procedures to ensure privacy, yet other regions lack similarly stringent policies, exacerbating concerns.

Beyond regulation, participants emphasized the need for public awareness campaigns to demystify AI processes and provide citizens with a clearer understanding of how AI technologies collect, store, and utilize their data. This aligns with research that shows a positive relationship between AI literacy and public trust in AI systems. Public education on AI's ethical implications could empower citizens to make informed choices and demand accountability, a factor that is currently lacking in many public sectors, leading to misunderstandings and resistance.

Impact on Employment and Public Perception of AI's Societal Role

The prospect of job displacement due to AI automation emerged as a significant theme, with many respondents voicing concerns about AI's potential to replace jobs, especially in low-skill sectors like administrative work, transportation, and retail. Respondents feared that as AI takes on routine, repetitive tasks, many workers could face job insecurity. AI's capacity to transform labor markets by automating such tasks, a trend that could disproportionately impact workers without advanced technical skills or higher education. Furthermore, AI-driven automation tends to disproportionately affect roles characterized by predictable, manual tasks, suggesting that job losses may be higher in industries where such tasks are prevalent.

Participants highlighted that without reskilling programs and career transition support, the widespread adoption of AI could exacerbate existing inequalities, especially for workers in sectors without natural AI adaptability pathways. Without comprehensive support systems, economic disparities could worsen, leading to social instability as a direct result of mass job displacement. This demand for retraining is not just theoretical; practical examples, such as Singapore's Skills Future initiative and Germany's vocational training system, demonstrate the efficacy of such

programs in adapting workforces to technological change. Governments in countries rapidly adopting AI could implement similar initiatives to mitigate AI's impact on employment, thereby safeguarding the socioeconomic well-being of at-risk workers.

Despite these concerns, many respondents also recognized AI's potential to enhance public services, particularly in sectors where efficiency and accuracy are critical, such as healthcare and public administration. AI's potential to reduce diagnostic errors, optimize resource allocation, and improve service accessibility in healthcare. Respondents noted that AI's ability to analyze vast amounts of data quickly could help alleviate administrative bottlenecks and improve the responsiveness of healthcare systems. For instance, AI-driven systems in diagnostic imaging have already shown potential in reducing radiology workload by flagging critical cases for immediate review.

Participants stressed, however, that the anticipated efficiency gains from AI in public services could only be realized if governments actively address potential negative employment impacts. A key concern was that while AI might increase productivity, it could also contribute to a "jobless economy," where automation increases profits without providing equitable benefits to displaced workers. This highlights the need for comprehensive policy measures to ensure that AI adoption does not worsen income inequality or lead to social unrest. For example, countries like South Korea and Finland have implemented retraining programs focused on digital skills, specifically tailored for individuals at risk of displacement due to technological advances. Such models suggest practical pathways for mitigating AI's impact on the workforce.

Moreover, the feedback from respondents emphasized a need for policy frameworks that encourage a balanced approach to AI adoption one that harnesses AI's potential for enhancing public services without disregarding the human costs associated with automation. By providing universal access to retraining and establishing job transition assistance programs, governments can help ensure that the benefits of AI are broadly distributed, supporting not only economic efficiency but also societal stability. Stresses the importance of such inclusive policies, advocating for government-led initiatives that support worker adaptability in the face of advancing AI. Thus, a proactive approach, grounded in policy reform and workforce development, can serve as a practical response to the complex challenges AI poses to employment stability.

The Need for Public Education and AI Literacy

The study emphasized the significant role that public education and AI literacy play in shaping public perceptions of AI. A notable portion of respondents expressed confusion and apprehension regarding how AI operates within public services and the potential effects it could have on daily life. This reflects findings in existing research, which highlights AI literacy as a key determinant of public acceptance and confidence in AI. Without adequate knowledge, the public is more likely to harbor skepticism or anxiety about AI technologies, especially in sectors that directly impact well-being, such as healthcare and transportation. This gap in understanding leads to a "fear of the unknown," where individuals may be reluctant to support AI's integration into public services due to uncertainty about its potential risks and benefits (Vaishya et al., 2020).

Educational campaigns have been proposed as a practical solution to this knowledge gap, and several studies advocate for targeted initiatives that clarify both the workings and the implications of AI technologies. These campaigns could include public workshops, online courses, and community seminars aimed at educating citizens about AI's capabilities, limitations, and ethical implications. For instance, South Korea's AI Education Initiative has made strides in promoting AI literacy at a

national level by implementing AI courses in public schools and offering workshops to the general public, which have helped to foster a more informed and receptive populace. Such initiatives could serve as a model for other countries, emphasizing practical, accessible education that addresses the public's concerns and questions directly.

The need for AI education is particularly relevant in fields like healthcare and public safety, where AI can provide significant benefits but where public apprehension remains high. For example, many people are unaware of AI's applications in medical diagnostics, such as its use in image analysis to detect early signs of diseases. By educating the public on how AI contributes to early detection and more accurate diagnoses, healthcare providers can help alleviate concerns about data privacy and AI's role in patient care (Vaishya et al., 2020). Similarly, public education efforts could demystify AI's role in traffic management and transportation safety, where it helps reduce congestion and predict accident-prone areas. Such practical applications could be highlighted in public awareness campaigns to show how AI improves safety and efficiency in daily life.

Furthermore, AI literacy programs could empower citizens to participate in AI related discussions and decision-making processes. By fostering a basic understanding of AI, these programs would enable the public to make informed evaluations about the trade-off and ethics of using AI in public settings. When citizens are equipped with fundamental AI knowledge, they are more likely to engage constructively in policy discussions, providing valuable feedback and voicing informed opinions on how AI should be regulated or implemented in public services. Involving the public in these discussions can help build trust and increase acceptance, as individuals feel more control over AI's integration into societal infrastructures.

In addition to increasing public confidence in AI, education initiatives can encourage critical thinking about the technology's broader social impact. Educating the public on AI ethics and risks is essential for a balanced understanding. Instead of presenting AI as a universally beneficial tool, educational programs can provide a nuanced view, addressing potential issues like data privacy and bias. For example, by explaining how AI models might inadvertently perpetuate biases in hiring or policing, educational campaigns can prepare citizens to recognize and question these challenges. This approach allows for more informed public scrutiny, which is crucial for ethical AI adoption and aligns with research advocating for AI literacy as a component of digital citizenship.

Collaborative initiatives involving universities, tech companies, and government bodies could also support these educational efforts, creating a comprehensive AI literacy framework that spans all age groups. For instance, programs like the AI4ALL initiative in the United States work with high schools and community colleges to introduce foundational AI concepts, enabling young people to understand and engage with AI technologies from an early age. Similar programs could be tailored to various demographics, with practical examples drawn from real world applications in local communities to make the content relatable and immediately relevant.

Public Trust and Government Responsibility

The study emphasized that public trust in AI relies heavily on the government's role as a responsible overseer, fostering a perception of safety, transparency, and fairness in AI's application across public services. Respondents consistently expressed that they were more open to AI in government services if they felt that government institutions would use AI with integrity and in the public interest, rather than solely for corporate or efficiency-driven purposes. When governments lack transparency or fail to engage citizens in decision-making, public trust in AI initiatives wanes, often resulting in resistance or mistrust toward technological advances. When citizens

believe the government is accountable and has regulatory safeguards in place, their trust in AI systems and associated policies increases, fostering greater openness to technological integration.

Transparency and accountability are critical factors here, especially as AI becomes embedded in critical areas such as healthcare, social services, and law enforcement. Governments that engage in open dialogue about AI, providing clear information on how and why AI is implemented, are more successful in gaining public support. For example, when governments make AI decision-making processes accessible, explaining the algorithms' purposes, limitations, and safeguards, the public feels more in control and better informed about these technologies. Practical examples include Finland's "AI on Your Side" campaign, where the government partnered with local organizations to explain AI policies to citizens in accessible terms, as well as Singapore's Advisory Council on the Ethical Use of AI and Data, which actively involves the public in shaping ethical guidelines for AI applications.

Moreover, engagement in public dialogues about AI's ethical and social implications is another way that governments can strengthen public trust. Studies on digital governance suggest that when citizens are involved in discussions surrounding AI's implementation and regulation, they are more likely to perceive these initiatives as fair and oriented toward public good. By proactively engaging citizens through consultative platforms, such as online public forums, town hall meetings, and workshops governments can gather valuable insights on public expectations and concerns, which can inform AI policy adjustments that better align with societal values. Countries like Denmark and Estonia have successfully employed such citizen centered approaches, integrating feedback from public consultations to refine their AI governance frameworks (van Noordt et al., 2023).

The need for accountability mechanisms was another recurring theme among respondents, who emphasized the importance of holding AI systems and their operators to high ethical standards. Robust accountability measures, such as regulatory audits and compliance checks, are essential in mitigating potential harms of AI in public services, especially in areas with sensitive implications like healthcare or law enforcement. When these mechanisms are absent or opaque, public skepticism grows, potentially hindering AI adoption. Additionally, the development of independent AI oversight bodies, which operate free from corporate or political influence has been suggested as a practical approach to ensure impartial monitoring and enforcement of ethical AI practices, providing citizens with assurances that AI applications adhere to established ethical and legal standards.

Governments that prioritize ethical transparency and establish clear channels for accountability often see increased public confidence in AI's societal role. Such measures include publishing impact assessments of AI applications, offering publicly accessible algorithm audits, and ensuring avenues for reporting concerns or misconduct in AI use. This practice can be observed in Canada's Algorithmic Impact Assessment tool, which helps the public understand how AI systems are evaluated for ethical risks before implementation in federal services, thereby fostering an atmosphere of trust and cooperation between the government and the public.

CONCLUSION

To promote public trust and effective AI adoption, the government should initiate comprehensive AI literacy programs. These programs would educate the public on AI's role in sectors like healthcare and transportation, addressing privacy, job security, and ethical concerns. Collaboration with educational institutions and community groups could enhance access to these programs, integrating relatable, practical examples that clarify AI's positive contributions. Such initiatives not only

build trust but also equip citizens to participate in meaningful AI policy discussions, thereby enhancing public accountability.

To support equitable AI integration, government led job reskilling programs should prepare workers for AI enhanced roles, particularly those at risk of displacement. Countries like Singapore and South Korea demonstrate the success of digital skills training and vocational programs, which can effectively ease transitions to new, AI aligned job functions. Implementing similar initiatives would address employment concerns, ensuring that workers benefit from AI advancements rather than being disadvantaged by them. Such programs would enable smoother transitions across industries affected by automation, fostering public confidence and economic stability.

REFERENCES

Akter, S., McCarthy, G., Sajib, S., Michael, K., Dwivedi, Y. K., D'Ambra, J., & Shen, K. N. (2021). Algorithmic bias in data-driven innovation in the age of AI. *International Journal of Information Management*, *60*, 102387. https://doi.org/10.1016/j.ijinfomgt.2021.102387

Bahroun, Z., Anane, C., Ahmed, V., & Zacca, A. (2023). Transforming education: A comprehensive review of generative artificial intelligence in educational settings through bibliometric and content analysis. *Sustainability*, *15*(17), 12983. https://doi.org/10.3390/su151712983

Ballantyne, A., & Stewart, C. (2019). Big data and public-private partnerships in healthcare and research: the application of an ethics framework for big data in health and research. *Asian Bioethics Review*, *11*(3), 315-326. https://doi.org/10.1007/s41649-019-00100-7

Bao, L., Krause, N. M., Calice, M. N., Scheufele, D. A., Wirz, C. D., Brossard, D., ... & Xenos, M. A. (2022). Whose AI? How different publics think about AI and its social impacts. *Computers in Human Behavior*, *130*, 107182. https://doi.org/10.1016/j.chb.2022.107182

Berman, A., de Fine Licht, K., & Carlsson, V. (2024). Trustworthy AI in the public sector: An empirical analysis of a Swedish labor market decision-support system. *Technology in Society*, *76*, 102471. https://doi.org/10.1016/j.techsoc.2024.102471

Campion, A., Gasco-Hernandez, M., Jankin Mikhaylov, S., & Esteve, M. (2022). Overcoming the challenges of collaboratively adopting artificial intelligence in the public sector. *Social Science Computer Review*, *40*(2), 462-477. https://doi.org/10.1177/0894439320979953

de Almeida, P. G. R., dos Santos, C. D., & Farias, J. S. (2021). Artificial intelligence regulation: a framework for governance. *Ethics and Information Technology*, *23*(3), 505-525. https://doi.org/10.1007/s10676-021-09593-z

Díaz-Rodríguez, N., Del Ser, J., Coeckelbergh, M., de Prado, M. L., Herrera-Viedma, E., & Herrera, F. (2023). Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. *Information Fusion*, *99*, 101896. https://doi.org/10.1016/j.inffus.2023.101896

Duberry, J. (2022). Artificial intelligence and democracy: risks and promises of AI-mediated citizen–government relations. In *Artificial Intelligence and Democracy*. Edward Elgar Publishing. https://doi.org/10.4337/9781788977319

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... &

Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International journal of information management*, *57*, 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Fontes, C., Hohma, E., Corrigan, C. C., & Lütge, C. (2022). AI-powered public surveillance systems: why we (might) need them and how we want them. *Technology in Society*, *71*, 102137. https://doi.org/10.1016/j.techsoc.2022.102137

Güneylioğlu, M. (2022). The Turkey-China rapprochement in the context of the BRI: a geoeconomic perspective. *Australian Journal of International Affairs*, *76*(5), 546-574. https://doi.org/10.1080/10357718.2022.2076805

Gunkel, D. J. (2012). Communication and artificial intelligence: Opportunities and challenges for the 21st century. *communication+ 1*, *1*(1). https://doi.org/10.7275/R5QJ7F7R

Habbal, A., Ali, M. K., & Abuzaraida, M. A. (2024). Artificial Intelligence Trust, risk and security management (AI trism): Frameworks, applications, challenges and future research directions. *Expert Systems with Applications*, *240*, 122442. https://doi.org/10.1016/j.eswa.2023.122442

Kuziemski, M., & Misuraca, G. (2020). AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings. *Telecommunications policy*, *44*(6), 101976. https://doi.org/10.1016/j.telpol.2020.101976

Liu, M., Ren, Y., Nyagoga, L. M., Stonier, F., Wu, Z., & Yu, L. (2023). Future of education in the era of generative artificial intelligence: Consensus among Chinese scholars on applications of ChatGPT in schools. *Future in Educational Research*, *1*(1), 72-101. https://doi.org/10.1002/fer3.10

Malek, M. A. (2022). Criminal courts' artificial intelligence: the way it reinforces bias and discrimination. *AI and Ethics*, *2*(1), 233-245. https://doi.org/10.1007/s43681-022-00137-9

Nazareno, L., & Schiff, D. S. (2021). The impact of automation and artificial intelligence on worker well-being. *Technology in Society*, *67*, 101679. https://doi.org/10.1016/j.techsoc.2021.101679

Nissenbaum, H. (2020). Protecting privacy in an information age: The problem of privacy in public. In *The ethics of information technologies* (pp. 141-178). Routledge. https://doi.org/10.4324/9781003075011

Robinson, S. C. (2020). Trust, transparency, and openness: How inclusion of cultural values shapes Nordic national public policy strategies for artificial intelligence (AI). *Technology in Society*, *63*, 101421. https://doi.org/10.1016/j.techsoc.2020.101421

Sartori, L., & Theodorou, A. (2022). A sociotechnical perspective for the future of AI: narratives, inequalities, and human control. *Ethics and Information Technology*, *24*(1), 4. https://doi.org/10.1007/s10676-022-09624-3

Tackie, E. A., Chen, H., Ahakwa, I., Amankona, D., & Atingabili, S. (2023). Drivers of food security in West Africa: Insight from heterogeneous panel data analysis on income-level classification. *Environmental Science and Pollution Research*, *30*(37), 87028-87048. https://doi.org/10.1007/s11356-023-28548-z

Vaishya, R., Javaid, M., Khan, I. H., & Haleem, A. (2020). Artificial Intelligence (AI) applications for COVID-19 pandemic. *Diabetes & Metabolic Syndrome:*

Clinical Research & Reviews, *14*(4), 337-339. https://doi.org/10.1016/j.dsx.2020.04.012

Van Noordt, C., & Misuraca, G. (2022). Artificial intelligence for the public sector: results of landscaping the use of AI in government across the European Union. *Government information quarterly*, *39*(3), 101714. https://doi.org/10.1016/j.giq.2022.101714

van Noordt, C., Medaglia, R., & Tangi, L. (2023). Policy initiatives for Artificial Intelligence-enabled government: An analysis of national strategies in Europe. *Public Policy and Administration*, 09520767231198411. https://doi.org/10.1177/09520767231198411

Vu, H. T., & Lim, J. (2022). Effects of country and individual factors on public acceptance of artificial intelligence and robotics technologies: a multilevel SEM analysis of 28-country survey data. *Behaviour & Information Technology*, *41*(7), 1515-1528. https://doi.org/10.1080/0144929X.2021.1884288

Willems, J., Schmid, M. J., Vanderelst, D., Vogel, D., & Ebinger, F. (2023). AI-driven public services and the privacy paradox: do citizens really care about their privacy?. *Public Management Review*, *25*(11), 2116-2134. https://doi.org/10.1080/14719037.2022.2063934

Zuiderwijk, A., Chen, Y. C., & Salem, F. (2021). Implications of the use of artificial intelligence in public governance: A systematic literature review and a research agenda. *Government information quarterly*, *38*(3), 101577. https://doi.org/10.1016/j.giq.2021.101577