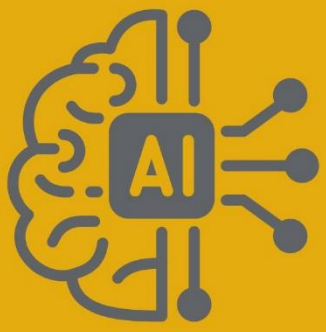
Asia Democracy Research Network

AI and Democratic Governance: Taiwan

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Asia Democracy Research Network

In 2026, the Asia Democracy Research Network (ADRN) selected "AI and Democratic Governance" as the subject of a joint research project, with Taiwan serving as a dedicated country case study authored by the Taiwanese member research team of ADRN.

Reaffirming the significance of digital governance and democratic accountability in the age of artificial intelligence, the ADRN published this report with the aim of providing a comprehensive, evidence-based examination of how AI governance frameworks are designed, how citizens perceive and interact with AI-driven public services, and how civil servants are integrating AI tools into their administrative work.

The report investigates contemporary questions such as:

- How has Taiwan developed its legal and regulatory architecture for AI governance, and what distinguishes its approach from comparable jurisdictions such as Japan and South Korea?
- How do Taiwanese citizens perceive and evaluate the benefits, risks, and trustworthiness of artificial intelligence in public life?
- To what extent have civil servants adopted AI in their daily administrative roles, and how prepared are public institutions to govern AI responsibly?

Drawing on a rich array of resources and analyses—including a review of the 2025 Artificial Intelligence Basic Act and municipal AI guidelines, a nationally representative public survey, and a specialized survey of civil servants—the report provides institution-specific and demographic insights, highlights emerging gaps between AI adoption and governance readiness, and suggests policy directions to strengthen democratic accountability in Taiwan's evolving AI landscape.

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Abstract

Combining a consolidated democratic system with one of Asia's highest levels of digital infrastructure density, Taiwan (Republic of China) offers a distinctive and illuminating case for examining how AI governance frameworks are built, how citizens perceive and experience artificial intelligence, and how the civil servants who implement public policy have begun to adopt AI tools in their daily work. This issue briefing, sponsored by Asia Democracy Research Network (ADRN), synthesizes three interrelated bodies of conceptual and empirical research. Part I analyses the legal and regulatory architecture for AI governance, tracing its evolution from pre-legislative municipal guidelines to the national Artificial Intelligence Basic Act (AI Basic Act, 2025). Part II presents findings from a nationally representative public survey on AI perceptions and usage, mapping digital divides and evaluative attitudes across four normative dimensions. Part III reports results from a specialized survey of civil servants, Taiwan Government Bureaucrats Survey (TGBS), assessing AI adoption patterns, risk perceptions, and institutional governance readiness. Together, the three parts constitute evidence-based reflections on development of artificial intelligence (AI) and democratic governance in Taiwan.

Part I: Legal and Regulatory Architecture of AI Governance

Part I examines the formation and evolution of Taiwan's AI governance framework from institutional and comparative perspectives (Sung, 2026). The centerpiece is the Artificial Intelligence Basic Act (AI Basic Act), enacted in late 2025 and brought into force in early 2026—marking a decisive legislative shift from voluntary guidance toward nationally anchored governance regime. The Act establishes a principle-based framework built around seven core governance principles: human-centered values, transparency, explainability, fairness, accountability, safety, and personal data protection. Rather than prescribing detailed ex ante regulations, it delegates implementing authority to competent central authorities across specific sectors, embedding a risk-based logic that calibrates the intensity of oversight to the magnitude of AI's potential harm. This regulatory design represents a considered middle-ground between Japan's predominantly soft-law approach and South Korea's state-led, sector-specific statutory model—a hybrid form of framework legislation that preserves regulatory agility while establishing constitutional legitimacy for AI governance. A further comparative analysis reveals a trajectory distinctive to Taiwan: municipal AI guidelines—most notably those of Taipei City (2024) and New Taipei City (2025). Their practical instruments (risk assessment checklists, procurement flowcharts, and FAQ guides for frontline civil servants) have since influenced the national framework's implementation architecture. This bottom-up diffusion of regulatory tools suggests that sub-national policy experimentation can serve as a functional substitute for the centralized regulatory capacity that smaller democratic states may lack during an initial phase of technological governance.

Keywords: AI Basic Act; risk-based governance

Part II: General Public Awareness, Usage, and Evaluative Perceptions of AI

Part II draws on a nationally representative dual-frame telephone survey (n = 1,171) conducted in May 2025, using raking post-stratification weights to align the sample with demographic benchmarks from Taiwan's National Household Registration (Huang, 2026). The findings reveal a pronounced cognition–usage gap: while 89.8% of respondents report awareness of AI, fewer than half have personally used generative

AI tools, and usage frequency remains markedly low among older adults and those without tertiary education. These two variables—age and educational attainment—emerge as the principal structural divides in Taiwan's digital landscape, suggesting that the digital divide has not been resolved so much as transposed onto a new technological frontier for emerging AI. In terms of evaluative perceptions, the survey measures public attitudes across four AI-induced dimensions including benefit, trust, risk, and governance. On the benefit dimension, 56.6% of the respondents are optimistic that AI will improve their overall quality of life, though skepticism is more pronounced among those who have not personally used AI. On the trust dimension, 67.9% express conditional trust in government AI systems, with trust levels significantly correlated with age and educational attainment. On the risk dimension, 32.8% of the respondents fear that government reliance on AI will degrade the quality of public services. On the governance dimension, a majority favor independent oversight of AI systems and demand greater transparency in algorithmic decision-making. These findings underscore the need for differentiated public communication strategies that build AI literacy among underserved demographic groups while reinforcing institutional accountability for the broader general public.

Keywords: digital divide; public trust in AI

Part III: Civil Servant AI Adoption and Governance Readiness

Part III reports findings from the Taiwan Government Bureaucrats Survey (TGBS), a Computer-Assisted Telephone Interview (CATI) survey of 1,044 civil servants conducted in September 2025 (Hsiao, 2026). Using the BRiCS analytical framework—Benefits, Risks, Conditions/costs, for AI Stakeholders—this part assesses the current state of AI adoption in the public sector, civil servants' perceptions of AI-related benefits and risks, and the institutional conditions shaping governance readiness. On adoption, 42.9% of the respondents report using AI in their current administrative roles, with document processing tasks dominating actual usage at 73.9%—a pattern reflecting both the data-rich nature of administrative work and the bounded scope of currently deployed AI tools. The civil servants also express high expectations for AI-induced benefits, particularly in operational efficiency (mean = 4.83 out of 6) and decision-making efficiency (mean = 4.81 out of 6). However, risk perceptions are also

substantial: concerns about over-reliance on AI score highest (mean = 4.33 out of 6), followed by concerns about loss of human control (mean = 4.21 out of 6) and algorithmic bias (mean = 3.60 out of 6). Most critically, assessments of institutional governance capacity reveal severe under-resourcing of public agencies: scores for dedicated funding (mean = 2.78 out of 6) and technical capabilities (mean = 2.65 out of 6) fall substantially below the midpoint, indicating that the adoption pace is significantly outpacing institutional AI governance readiness. On macro-level perceptions of AI's broader impact, the civil servants score between 3.07 and 3.11 out of 4—moderately optimistic yet notably more cautious than the general public as reported in Part II, reflecting ground-level awareness of implementation challenges. Collectively, these findings point to an urgent asymmetry between the rapid deployment of AI in government operations and the institutional capacity to govern it responsibly and democratically.

Keywords: civil servant AI adoption; AI governance capacity



Part 1

Legal Documents of AI Law and Regulation at Central and Local Government Levels

This part examines the formation and evolution of Taiwan's artificial intelligence (AI) governance framework from the perspectives of institutional development and comparative study. It begins with an introduction to the Artificial Intelligence Basic Act (hereinafter the 'AI Basic Act', 2025), enacted in late 2025 and brought into force in early 2026, and analyses its principal regulatory structure and fundamental principles of AI governance. The discussion then adopts a comparative law approach, comparing Taiwan's AI legal regime with those of Japan and South Korea—examining differences among the three jurisdictions in terms of governance philosophies, regulatory models, and policy instruments. Finally, this part reviews the AI operational guidelines issued by two major special municipalities in Taiwan prior to the enactment of the AI Basic Act, highlighting the administrative governance mechanisms and practical implementation measures developed by local governments before national legislation was completed. Through this analysis, the part illustrates the regulatory trajectory of Taiwan's AI governance architecture, showing how it gradually evolved from local administrative practices and comparative legal influences into a national legislative framework.

Ⅰ. Artificial Intelligence Basic Act

In December 2025, Taiwan's legislature (Legislative Yuan) passed the AI Basic Act, which was promulgated by the President in January 2026. The AI Basic Act serves a multitude of purposes, primarily focusing on building a smart nation, fostering AI R&D and industrial growth, and ensuring a secure application environment. It also seeks to advance digital equity, protect fundamental rights, and enhance societal well-being and quality of life. Finally, the legislation strives to promote sustainable development, preserve cultural values, boost global competitiveness, and ensure ethical technology deployment (AI Basic Act, art. 1, 2025). This section explores the AI Basic Act by examining five core regulatory domains: (1) the legislative framework and competent authorities, (2) fundamental principles of AI governance, (3) government policies and industrial development, (4) the AI risk management regime, and (5) data governance and social responsibility.

1. Legislative Framework and Competent Authorities

In terms of its legislative structure, the AI Basic Act functions as framework legislation. Rather than establishing detailed regulatory provisions or penalties, it provides the legal foundation for the state to promote AI development and to build a national governance architecture. The AI Basic Act designates the National Science and Technology Council (NSTC) as the competent authority at the central government level, with municipal and county governments serving as the competent authorities at the local level (AI Basic Act, art. 2, 2025). In addition, the Act requires the Executive Yuan to establish a National Artificial Intelligence Strategic Special Committee to coordinate national AI policy and formulate a national AI development blueprint (AI Basic Act, art. 6, 2025).

The AI Basic Act further defines AI as 'a system with autonomous operational capabilities that, through inputs or sensing and the use of machine learning and algorithms, generates outputs—such as predictions, content, recommendations, or decisions—that influence physical or virtual environments in pursuit of explicit or implicit objectives.' (AI Basic Act, art. 3, 2025).

2. Fundamental Principles of AI Governance

Regarding technical and operational governance, the Act emphasizes privacy protection and data governance to safeguard personal data and trade secrets, minimize data use, and prevent leaks, while promoting the reuse of non-sensitive data under constitutional privacy protections.

The AI Basic Act requires the government to adhere to seven guiding principles when promoting AI development. AI initiatives must prioritize sustainable development and well-being by balancing social equity with environmental sustainability and providing education to reduce digital divides, thereby enabling citizens to adapt to AI-driven changes. A commitment to human autonomy ensures a human-centric approach that respects fundamental rights, including personality rights and cultural values, while maintaining human oversight within the framework of the rule of law and democratic values (AI Basic Act, art. 4, 2025).

Regarding technical and operational governance, the Act emphasizes privacy protection and data governance to safeguard personal data and trade secrets, minimize data use, and prevent leaks, while promoting the reuse of non-sensitive data under constitutional privacy protections. This is coupled with cybersecurity and safety mandates to establish robust defenses against threats (AI Basic Act, art. 4, 2025).

Furthermore, transparency and explainability require the appropriate disclosure or labeling of AI outputs to facilitate risk assessment and build public trust. The framework also demands fairness and non-discrimination to actively avoid algorithmic bias and prevent discriminatory outcomes against specific groups. Ultimately, the principle of accountability guarantees that corresponding internal governance and external social responsibilities are properly assumed (AI Basic Act, art. 4, 2025).

3. Government Policies and Industrial Development

3.1. Financial Support and Industrial Policy

The AI Basic Act mandates the government to actively promote AI research, development (R&D), applications, and infrastructure (AI Basic Act, art. 8, 2025). To effectively implement AI development policies, the government must allocate adequate budgets within its fiscal capacity and strategically plan the overall

distribution of resources (AI Basic Act, art. 9, 2025). To support these efforts, competent authorities may utilize a range of measures—including subsidies, commissions, funding, investments, rewards, and counseling—as well as offer tax and financial incentives to AI-related industries (AI Basic Act, art. 10, 2025). Finally, to ensure the ongoing optimization of these initiatives, the Act requires the establishment of an annual performance reporting system (AI Basic Act, art. 10, 2025). By regularly publishing evaluation results, this mechanism serves as an objective basis for continuous policy promotion and resource adjustment.

3.2. Data Openness and Sharing Framework

Regarding data utilization, the Act requires the government to establish mechanisms for data openness, sharing, and reuse, and to regularly review and adjust relevant regulations.

Regarding data utilization, the Act requires the government to establish mechanisms for data openness, sharing, and reuse, and to regularly review and adjust relevant regulations. The government must also strive to enhance the quality and quantity of data used by AI, ensuring that both the training processes and the generated outputs adequately demonstrate the nation's diverse cultural values and safeguard intellectual property rights (AI Basic Act, art. 13, 2025). To perfect the regulatory environment for AI development, the government shall provide measures such as fair use, support, and subsidies during the training, testing, and verification phases of AI systems. If the interpretation or application of relevant AI regulations conflicts with other existing laws, priority should be given to facilitating the provision of new technologies and services, provided that the fundamental principles of the AI Basic Act are met. In addition, to promote technological innovation and sustainable development, the Act authorizes competent authorities to establish innovative experimental environments for AI products and services (AI Basic Act, art. 11, 2025).

3.3. Talent Cultivation and the Innovation Ecosystem

To enhance citizens' knowledge and skills regarding AI, the AI Basic Act requires the government to continuously promote AI and ethics education across educational institutions of all levels, industries, civic groups, society, and public agencies, thereby cultivating citizens' overall digital literacy (AI Basic Act, art. 7, 2025). Furthermore, the government is mandated to strive for international cooperation related to AI. Based on the principle of public-private partnership, the government must actively collaborate with the private sector to jointly promote the innovative application of artificial intelligence (AI Basic Act, art. 12, 2025).

4. The AI Risk Governance Regime

4.1. Risk Classification and Management Architecture

To govern AI risks, the AI Basic Act mandates the Ministry of Digital Affairs to reference international standards and promote an internationally aligned AI risk classification framework.

To govern AI risks, the AI Basic Act mandates the Ministry of Digital Affairs to reference international standards and promote an internationally aligned AI risk classification framework. The Ministry must also assist competent authorities in formulating risk-based management regulations. Consequently, these authorities are required to develop their own risk-based regulations guided by this framework and help relevant industries establish self-regulatory guidelines and codes of conduct (AI Basic Act, art. 16, 2025). For public-sector applications, the legislation requires that when the government utilizes AI to execute duties or provide services, it must conduct risk assessments and plan response measures. Furthermore, government agencies must establish usage regulations or internal control mechanisms tailored to the specific nature of their AI operations (AI Basic Act, art. 19, 2025).

4.2. Institutional Balance Between High-Risk Accountability and R&D Exemptions

The law requires the government to restrict or prohibit AI applications based on three main categories of risk. First, regulatory interventions are mandated if an AI system infringes upon individual life, bodily integrity, liberty, or property. Second, the

government must act against applications that disrupt social order, national security, or the ecological environment. Finally, bans or restrictions also apply to systems involving bias, discrimination, false advertising, misinformation, or forgery (AI Basic Act, art. 5 & 16, 2025). Especially for high-risk AI applications, the government must clarify the attribution of liability and conditions of accountability, and establish mechanisms for relief, compensation, or insurance (AI Basic Act, art. 17, 2025). AI R&D activities are generally exempt from regulations governing high-risk applications prior to their actual deployment. However, this exemption ceases to apply once the AI undergoes testing in real-world environments, or when R&D outcomes are transitioned into concrete products or services (AI Basic Act, art. 17, 2025).

5. Data Governance and Social Responsibility

5.1. Protection of Minors and Personal Data

Regarding the safeguarding of fundamental rights, in addition to protecting individuals' life, bodily integrity, liberty, and property, the Act further emphasizes the protection of minors and personal data.

Regarding the safeguarding of fundamental rights, in addition to protecting individuals' life, bodily integrity, liberty, and property, the Act further emphasizes the protection of minors and personal data. With respect to minors, the legislation highlights the principle of the 'best interests of the child.' For AI systems classified as high-risk, appropriate warning and labeling mechanisms must be established. Furthermore, the development of relevant verification and assessment tools should be carried out through a multi-stakeholder process involving industry, academia, research institutions, and civil society (AI Basic Act, art. 5, 2025). Additionally, to prevent AI from infringing personal data, the Act requires government agencies to avoid unnecessary data collection, processing, or use of personal data during the development of AI systems. It further promotes the adoption of measures based on the principle of 'data protection by design and by default,' in order to safeguard the rights and interests of data subjects (AI Basic Act, art. 14, 2025).

5.2. Protection of Labor Rights

The government must actively utilize AI to ensure the labor rights of workers. Furthermore, the government is mandated to actively bridge the skill gaps caused by the development of AI, enhance labor participation, safeguard economic security, and implement decent work. For individuals who become unemployed due to the utilization of AI, the government must provide employment counseling in accordance with their working capabilities (AI Basic Act, art. 15, 2025).

6. Conclusion: Legislative Review and Overall Summary

The government must review its regulations and administrative measures in accordance with the AI Basic Act. For those that do not comply with the provisions of this Act or where applicable regulations are lacking, the enactment, amendment, or repeal of regulations—as well as the improvement of administrative measures—must be completed within two years. Before these legislative modifications are completed, in cases where existing regulations lack provisions, central competent authorities for the specific purposes across various sectors must consult with the central competent authority to interpret and apply them in accordance with the Act. In summary, the AI Basic Act mandates adherence to seven principles and requires the government to allocate resources to promote AI development. Furthermore, the Act institutionalizes a risk-based management framework, establishing accountability mechanisms for high-risk applications while providing exemptions prior to actual application. Finally, the Act imposes concrete obligations on the government regarding privacy protection, cybersecurity requirements, and labor rights safeguards.

Ⅱ. Comparative Perspectives: Taiwan, Japan, and South Korea

1. A Comparative Study of AI Governance in Taiwan and Japan

1.1. Japan's Innovation-Oriented Environment Centered on Agile Governance and Soft Law

Regarding AI governance, Japan has long adopted a policy approach centered on agile governance and soft law, aiming to prevent premature and stringent regulation from stifling technological innovation. Unlike the regulatory model of the EU Artificial Intelligence Act, which relies on comprehensive and binding legislation, Japan primarily guides industrial development through policy principles and administrative guidelines. For example, the Japanese government has issued the Social Principles of Human-Centric AI (Council for Social Principles of Human-Centric AI, 2019), while the Ministry of Economy, Trade and Industry and the Ministry of Internal Affairs and Communications have jointly formulated the AI Guidelines for Business, encouraging enterprises to implement principles such as human-centricity, transparency, and accountability (Ministry of Economy, Trade and Industry, & Ministry of Internal Affairs and Communications 2024). At the same time, Japan tends to address AI-related issues through its existing legal framework. For instance, the information analysis exception established by the 2018 amendment to the Copyright Act of Japan allows the use of copyright-protected works for machine learning and data analysis, provided that it is not for the purpose of enjoying the work's expressive content and does not unreasonably prejudice the interests of the copyright owners (Agency for Cultural Affairs 2024).

1.2. Japan's Gradual Institutional Transition Toward Large Model Governance

As the potential systemic risks associated with generative AI and large-scale foundation models have become increasingly evident, Japan's governance approach has begun to evolve. To align with international regulatory developments, such as the governance framework proposed under the G7 Hiroshima AI Process, the Japanese government has recently initiated discussions on whether more binding governance mechanisms should be introduced for developers of large-scale AI models (AI Strategic Council / AI Institutional Study Group 2025). These policy discussions primarily focus on upstream risk management, including safety assessments, safeguards against malicious use, and appropriate governmental oversight. Overall, Japan's AI governance framework appears to be gradually moving toward a model that imposes moderate oversight on foundation models while maintaining substantial regulatory flexibility at the application level.

Overall, Japan's AI governance framework appears to be gradually moving toward a model that imposes moderate oversight on foundation models while maintaining substantial regulatory flexibility at the application level.

1.3. Comparison of AI Governance Models Between Taiwan and Japan

In contrast to Japan's soft-law governance model based largely on policy guidelines and industry self-regulation, Taiwan's AI Basic Act establishes the fundamental principles and policy directions for AI development and governance through statutory legislation. Nevertheless, Taiwan's legislative approach still retains a largely policy-oriented character, as most provisions are framed as guiding principles rather than detailed regulatory obligations. Ultimately, although both Taiwan and Japan emphasize the promotion of innovation and industrial development, Japan relies more heavily on policy principles and administrative guidance, whereas Taiwan tends to establish

While the two jurisdictions share similar governance philosophies, they diverge in their choice of institutional instruments, reflecting a contrast between statutory frameworks and policy-driven governance.

governance structures through a framework statute. While the two jurisdictions share similar governance philosophies, they diverge in their choice of institutional instruments, reflecting a contrast between statutory frameworks and policy-driven governance.

2. A Comparative Study of AI Governance in Taiwan and South Korea

2.1. South Korea's National Strategic Framework Centered on Industrial Promotion

In order to secure its competitive advantage in the global AI industry, the South Korean National Assembly recently passed the Framework Act on the Development of Artificial Intelligence and the Creation of a Foundation for Trust (hereinafter the 'Korean AI Act', 2025), establishing a national development strategy through statutory legislation (Korean AI Act, art. 1, 2025). Under the Korean AI Act, the National AI Committee, led by the President, serves as the highest policy coordination body (Korean AI Act, art. 7, 2025), and the government is required to formulate an AI Basic Plan every three years (Korean AI Act, art. 6, 2025). The Korean AI Act also reflects a clear orientation toward industrial promotion. It requires the government to support the development of AI technologies by small and medium-sized enterprises (SMEs) and startups, while encouraging the public sector to adopt AI-related products and services (Korean AI Act, art. 16, 2025). The government should also support international cooperation and overseas expansion (Korean AI Act, art. 22, 2025).

2.2. South Korea's Safety Mechanisms for High-Impact AI

Overall, South Korea's AI governance framework reflects a model characterized by strong industrial promotion combined with targeted regulation of high-risk applications.

The Minister of Science and ICT is authorized to establish and operate an Artificial Intelligence Safety Institute in order to safeguard citizens' lives and property, develop safety standards, and carry out technical evaluations (Korean AI Act, art. 12, 2025). While promoting industrial development, South Korea has also begun to establish regulatory mechanisms for high-impact AI applications (Korean AI Act, art. 33, 2025). Developers and providers of such systems are required to fulfill obligations including risk management, transparency, and human oversight (Korean AI Act, arts. 31, 32 & 34, 2025). Overall, South Korea's AI governance framework reflects a model characterized by strong industrial promotion combined with targeted regulation of high-risk applications.

2.3. Comparison of AI Governance Models Between Taiwan and South Korea

Both Taiwan and South Korea have adopted the enactment of an AI Basic Act as an important institutional foundation for AI governance. In both jurisdictions, the legislative objectives emphasize balancing the promotion of industrial development with the mitigation of societal risks. However, important differences arise in institutional design and the allocation of administrative authority. South Korea's legislation exhibits stronger state-led characteristics, reinforcing central policy coordination and incorporating certain industrial policy instruments within the statute. By contrast, Taiwan's AI Basic Act adopts a more framework-oriented governance model. It designates the National Science and Technology Council as the central coordinating authority, while delegating rulemaking authority to sectoral regulators to develop specific regulatory rules and industry guidelines based on a risk-classification framework. Ultimately, although both jurisdictions adopt the structure of a basic act, South Korea is more inclined to incorporate concrete industrial policies and administrative arrangements directly into the statute, whereas Taiwan maintains a higher-level policy framework with greater cross-ministerial flexibility.

3. Conclusion: Comparative AI Governance Models in Taiwan, Japan, and South Korea

In AI governance, Taiwan, Japan, and South Korea all emphasize technological innovation and risk management, yet they follow distinct governance pathways in their institutional tools and policy orientations. Japan has long adopted a soft-law governance model primarily based on policy principles and administrative guidelines, emphasizing agile governance and industry self-regulation to maintain a balance between technological innovation and regulatory flexibility. In contrast, South Korea adopts a more state-led institutional approach. Through the Korean AI Act, it establishes a centrally coordinated policy framework while incorporating industrial support measures and regulatory mechanisms for high-impact AI. Taiwan, by comparison, has recently established a law-based governance framework through its AI Basic Act, positioning its governance model between those of Japan and South Korea. On the one hand, the AI Basic Act centers on risk classification and fundamental governance principles without establishing a comprehensive mandatory regulatory regime. On the other hand, Taiwan institutionalizes its governance structure through legislation, with the National Science and Technology Council coordinating national AI policy and sectoral regulators formulating specific rules. Overall, the three jurisdictions represent distinct governance typologies: Japan reflects policy-oriented soft-law governance, South Korea demonstrates state-led industrial strategy legislation, while Taiwan develops a model characterized by framework legislation combined with risk-based governance. Table 1 summarizes the structural contrasts.

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Table 1-1: Comparative Analysis of AI Regulations in Taiwan, Japan, and South Korea

Dimension	Taiwan	Japan	South Korea
Core Legal Instrument	AI Basic Act (2025)	Policy guidelines	AI Basic Act (2025)
Governance Model	Framework governance	Soft-law governance	State-led governance
Regulatory Approach	Risk-based principles	Flexible / adaptive	Targeted regulation
Legal Style	Principle-based statute	Administrative guidance	Statutory regulation
Industrial Policy	Innovation support	Innovation-friendly	Strong state promotion
Institutional Coordination	NSTC	METI / MIC	National AI Committee
Risk Regulation	Risk classification	Limited formal rules	High-impact AI control

Source: Sung, H.-C. (2026). Compiled from AI Basic Act (2025), Korean AI Act (2025), METI/MIC (2024).

Table 1-1 illustrates how different institutional traditions shape AI governance in East Asia, producing diverse regulatory strategies that balance innovation, state coordination, and risk management in distinct ways. Together, these models demonstrate that AI regulation does not follow a single universal path but evolves according to each jurisdiction's policy priorities and administrative structure.

Ⅲ. AI Guidelines of Local Governments in Taiwan

Prior to the enactment of the AI Basic Act, Taiwan's Executive Yuan issued a policy document titled Reference Guidelines for the Use of Generative AI by the Executive Yuan and Its Subordinate Agencies ('Central Guidelines') in 2023 (Central Guidelines 2023). The Central Guidelines aim to provide fundamental principles and practical guidance for central government agencies utilizing generative AI tools. They are not legally binding regulations; rather, they function as a soft-law policy directive designed to guide public agencies in balancing administrative efficiency with risk management when adopting generative AI technologies. The main objective of the Central Guidelines is to ensure that the use of AI remains subject to human oversight and ultimate decision-making responsibility, while preventing the leakage of classified documents, personal data, or other sensitive information. They also caution agencies about potential risks associated with generative AI, including inaccurate information, algorithmic bias, and possible copyright infringement, and require civil servants to conduct appropriate verification and professional judgment when relying on AI-generated content. These Central Guidelines have also influenced the subsequent development of AI governance at the local government level, where several municipalities have issued their own administrative guidelines governing the use of generative AI.

The main objective of the Central Guidelines is to ensure that the use of AI remains subject to human oversight and ultimate decision-making responsibility, while preventing the leakage of classified documents, personal data, or other sensitive information.

1. Overview of the Taipei City Government AI Guidelines

In response to the rapid development of AI technologies and to ensure the legality and information security of municipal administration, the Taipei City Government issued the Taipei City Government Guidelines for the Use of Artificial Intelligence (hereinafter the 'Taipei City AI Guidelines') in September 2024 (Taipei City AI Guidelines 2024).

1.1. Regulatory Background and Positioning

The Taipei City AI Guidelines aim to provide standardized operational procedures and a compliance framework for municipal agencies and public schools when adopting AI technologies. As administrative guidelines at the local government level, they build upon the policy framework established by the Executive Yuan's Central Guidelines and further implement AI governance principles into the practical context of municipal administration.

1.2. Risk Classification and Core Principles

In terms of governance structure, the Taipei City AI Guidelines adopt a risk-based management model, categorizing AI applications into strictly prohibited, high-risk, medium-risk, and low-risk types based on their potential impact. The Guidelines also establish six core principles for public-sector AI use: accountability, safety, transparency and explainability, fairness and non-discrimination, privacy and personal data protection, and training and responsible use. To operationalize these principles, agencies must conduct ex-ante risk assessments and define the scope of application through a dedicated checklist when proposing AI-related projects.

1.3. Confidentiality Protection, Transparency, and Intellectual Property Compliance

At the operational level, the Taipei City AI Guidelines introduce several risk-control mechanisms. With respect to safety, civil servants are prohibited from entering classified or sensitive information into external generative AI systems to prevent information leakage. Regarding transparency, when AI is used to generate text, audio, images, or video in administrative processes, appropriate labeling or disclosure is required. The Guidelines also require users to conduct ex-ante prompt reviews and ex-post verification of generated outputs to prevent unlawful content or the infringement of privacy, personal data, or copyright.

1.4. Human Oversight and Institutional Accountability

The Taipei City AI Guidelines emphasize the principle of accountability. Artificial intelligence is defined strictly as an auxiliary tool for municipal administration. When relying on AI-generated information, responsible personnel must conduct professional verification and make the final judgment regarding potential risks. AI outputs must not replace the professional judgment and substantive review of civil servants. Regardless of the AI system adopted, ultimate decision-making authority and administrative responsibility remain with the agency and personnel using the technology. This ensures that, even as AI is used to enhance administrative efficiency, the final gatekeepers of municipal decisions remain human.

1.5. Practical Implementation Tools: Flowcharts, Checklists, and Q&As

The Taipei City AI Guidelines are notable for their strong practical orientation. Rather than remaining at the level of abstract principles, the document provides concrete implementation tools, including operational flowcharts, risk assessment checklists, and frequently asked questions (Q&As) tailored to administrative scenarios. These visualized and step-by-step instruments provide frontline civil servants and agency IT units with a clear practical guide, enabling municipal agencies to translate compliance requirements into concrete standard operating procedures when procuring, developing, or deploying AI systems.

2. Overview of the New Taipei City Government AI Guidelines

To establish an AI governance framework and promote the application of AI technologies in municipal services, the New Taipei City Government issued the New Taipei City Government Guidelines for the Use of Artificial Intelligence (hereinafter the 'New Taipei City AI Guidelines') in September 2025, which took effect on September 30 of the same year. These Guidelines aim to accelerate the adoption and application of AI across municipal agencies and schools and to establish standardized operational procedures, thereby enhancing public service efficiency and establishing AI-related governance mechanisms.

2.1. Regulatory Background and Scope of Application

The New Taipei City AI Guidelines apply to the relevant operational procedures and governance requirements for all municipal agencies and schools when adopting or using AI technologies. The Guidelines also implement relevant governance requirements into the public-sector procurement process, stipulating that when agencies conduct AI-related procurement or outsourced development projects, they must complete a self-assessment according to the Guidelines and consult the city government's Information Center prior to procurement. Concurrently, agencies must incorporate AI system operational management mechanisms and related technical document requirements into procurement documents to ensure that outsourced development and adoption processes comply with governance and information security regulations.

2.2. Governance Principles and Human Oversight Mechanisms

Regarding governance principles, the New Taipei City AI Guidelines require all agencies to implement fundamental principles such as fairness, transparency, explainability, accountability, human oversight, and privacy protection when using AI. The Guidelines emphasize that AI can only serve as an auxiliary tool for administrative operations. Civil servants must still conduct necessary reviews and judgments when utilizing AI-generated information and must not directly use AI-generated outputs as the sole basis for administrative decisions, thereby ensuring that administrative actions remain subject to ultimate human judgment and responsibility.

2.3. Generative AI Usage Restrictions and Information Protection

Concerning the application of generative AI, the New Taipei City AI Guidelines establish specific information protection measures. In principle, civil servants are prohibited from inputting classified information, confidential official matters, or personal data into external generative AI systems, nor may they prompt such systems with content that may involve classified operations or sensitive data, to avoid the risk of information leakage. For generative AI systems using closed-

network or on-premises deployment, appropriate use may be permitted in accordance with the classification level of the documents or information, provided that the security of the system environment has been verified.

2.4. AI System Security and Model Governance Requirements

This bottom-up trajectory—from local administrative practice to national statutory law—is a defining feature of Taiwan's AI governance evolution, with municipal innovation functioning as a policy laboratory for the national framework.

The New Taipei City AI Guidelines set forth governance requirements addressing the technical risks of AI systems. In terms of data governance, they emphasize that data usage must comply with principles such as legality, de-identification, and data minimization. Regarding information security, the Guidelines require agencies to strengthen defenses against AI-specific security threats, such as adversarial attacks, model stealing, and data poisoning. Additionally, the Guidelines require the establishment of model monitoring and management mechanisms to continuously observe system performance and potential biases.

3. Conclusion: Local Government AI Guidelines

Prior to the enactment of Taiwan's AI Basic Act, Taipei City and New Taipei City took the lead in issuing local government-level AI operational guidelines, translating the Executive Yuan's reference guidelines into municipal administrative practice. These two sets of guidelines exhibit several common characteristics in their institutional design and administrative practices. Through standardized procedures and administrative management mechanisms, these local guidelines provide a practical governance framework for local governments in the use of AI technologies prior to the enactment of national legislation. This bottom-up trajectory—from local administrative practice to national statutory law—is a defining feature of Taiwan's AI governance evolution, with municipal innovation functioning as a policy laboratory for the national framework.



Part 2
AI Awareness, Usage, and Evaluative Perceptions in Taiwan - Evidences from a National Survey

1. Research Background

In contemporary governance, the social contract is being renegotiated as algorithms increasingly mediate the relationship between citizens and the state. The rapid proliferation of artificial intelligence (AI) across global administrative landscapes has catalyzed a fundamental shift in how citizens interact with state mechanisms and other sectors of society. As government agencies increasingly adopt automated systems to augment or replace human decision-making, the legitimacy of these institutions rests upon a delicate balance of perceived efficiency and ethical accountability. In Taiwan, a society characterized by high technological density and a robust democratic framework, the integration of AI into public governance—particularly within the realm of administrative efficiency—presents a complex array of challenges. Based on a citizen-centric perspective, this part provides a preliminary analysis from a large-scale national survey conducted in 2025, aimed at disentangling the intricate relationships between cognitive awareness of AI, practical usage patterns, and evaluative perceptions of AI in various dimensions. By presenting the results, this report attempts to evaluate the health of the democratic fabric and the

public's willingness to allow automated systems to play a role in the collective will, and also proposes directions for further efforts.

2. Research Design

2.1. Data Collection

This study utilizes a rigorous quantitative framework to explore these dynamics, providing a high-resolution map of the Taiwanese public's technological orientation. The survey target population comprised citizens aged 18 and above residing in Taiwan. Data collection occurred between May 19 and May 27, 2025, utilizing a dual-frame telephone interviewing approach. This methodology integrated both landline and mobile phone sampling to mitigate the biases associated with the decline of traditional telephony. A Computer-Assisted Telephone Interviewing (CATI) system was employed to manage the complex branching logic of the questionnaire. The process resulted in 1,171 valid responses, consisting of 838 landline samples and 333 mobile phone samples. To rectify discrepancies between the sample structure and the actual population, the research team implemented a 'ranking' (raking) weighting method. Initial representative tests indicated significant statistical deviations in variables such as gender, age, education, and geographic location. Consequently, iterative proportional fitting was applied using the December 2024 population statistics provided by the Department of Household Registration, Ministry of the Interior.

2.2. Definitions of AI and Survey Questions

Respondents were provided with a standardized operational definition of Artificial Intelligence to ensure cognitive consistency. AI was defined as technological systems designed to assist in daily tasks, encompassing chatbots (e.g., ChatGPT, DeepSeek, Copilot), voice and image recognition, and automated service delivery. The survey utilized the following seven questions to measure cognitive awareness, usage patterns, and evaluative perceptions:

- G1 (Awareness): Before participating in this interview, had you ever heard about artificial intelligence (AI)?
- G2 (Usage): Have you ever used artificial intelligence (AI), such as the services or applications mentioned?
- G3 (Open-ended): What kinds of AI services or applications have you used?
- G4 (Benefit-Risk): Some people believe AI can benefit society, while others think it poses many risks. In your opinion, does AI bring more benefits or more risks?
- G5 (Trust): Some people believe AI is trustworthy, while others do not. In your opinion, do you think AI is trustworthy?
- G6 (Quality of Life): Some people believe AI can improve our quality of life, while others think it may worsen it. In your opinion, does AI improve or reduce the quality of life?
- G7 (Gov Services): Some people believe AI can enhance the quality of government services, while others think it may reduce it. In your opinion, does AI improve or reduce the quality of government services?

Most questions employed 5-point Likert scales, measuring variables from 'Strongly Disagree / Very Low' to 'Strongly Agree / Very High.'

3. Cognitive Awareness and Behavioral Engagement with AI

One of the most critical aspects of the digital transition is the gap between awareness and usage. While AI has become pervasive in public discourse, actual hands-on experience remains stratified.

3.1. Cognitive Visibility

While AI has become pervasive in public discourse, actual hands-on experience remains stratified.

A significant 89.8% of the Taiwanese population has heard of AI. Within this group, the frequency of exposure is quite high, with nearly half of the respondents (45.8%) stating they 'frequently hear' about the technology. This high degree of visibility suggests that AI is no longer a niche technical concept but has entered the 'social imaginary' of the broader public.

Table 2-1: Frequency Distribution of AI Cognition Levels

Degree of Cognition	Frequency / Percentage
Have never heard of it	118 (10.2%)
Have heard of it, but very rarely	174 (15.0%)
Hear about it occasionally	172 (14.8%)
Frequently hear about it	532 (45.8%)
Hear about it all the time	166 (14.3%)
Total	1,162 (100.0%)

3.2. Practical Usage Patterns

Despite high cognitive awareness, actual usage rates tell a different story. Only 45.0% of respondents reported having ever used AI services. Furthermore, a staggering 55.0% of the population has never interacted with AI technology directly. This finding highlights a 'Cognition-Usage Gap,' where public discourse about AI significantly outpaces its practical integration into the average citizen's life. The governance challenge is therefore not to popularize the concept of AI but to enable equitable access to its practical benefits.

Table 2-2: Frequency Distribution of AI Usage Experience

Usage Experience	Frequency / Percentage
Never used (Skip to G4)	643 (55.0%)
Have used it, but very rarely	142 (12.1%)
Occasional use	182 (15.6%)
Frequent use	118 (10.1%)
Use almost every day	84 (7.2%)
Total	1,169 (100.0%)

4. The Digital Divide: Demographic Drivers of AI Adoption

The behavioral engagement with AI is not uniform across the population. By cross-analyzing usage data with demographic markers, we can identify the socioeconomic barriers to adoption.

4.1. Gender and Usage Experience

The policy implication is clear: capability-building programs for senior citizens are the appropriate response, rather than persuasion campaigns.

Interestingly, gender does not appear to be a statistically significant barrier to AI usage. The ratio of male users (49.8%) to female users (50.2%) closely mirrors the overall population structure, suggesting that the digital gender gap in AI is minimal in Taiwan.

Table 2-3: Cross-Tabulation of AI Usage by Gender

Gender	Have Used AI	Have Never Used AI	Total (%)
Male	262 (49.8%)	331 (48.4%)	573 (48.9%)
Female	264 (50.2%)	332 (51.6%)	598 (51.1%)
Total	527	643	1,171

4.2. Age and the Generational Fault Line

The analysis reveals an extremely significant generational divide ($p < .001$). Usage rates follow a 'younger is higher' trend, with 100% of the 18–19 cohort having used AI, compared to only 8.8% of those over 60. This generational stratification poses a major challenge for the implementation of technology-based government services, as older populations may feel alienated by automated governance. Crucially, Trust in AI shows no significant age variation ($p = 0.11$)—older citizens are not inherently skeptical; their exclusion reflects access and skills deficits, not attitudinal resistance. The policy implication is clear: capability-building programs for senior citizens are the appropriate response, rather than persuasion campaigns.

Table 2-4: Cross-Tabulation of AI Usage by Age

Age Group	Have Used AI	Have Never Used AI	Total (%)
18–19	24 (4.5%)	0 (0.0%)	24 (2.0%)
20–29	127 (24.1%)	22 (3.5%)	149 (12.8%)
30–39	118 (22.5%)	57 (8.9%)	177 (15.1%)
40–49	124 (23.6%)	95 (14.8%)	219 (18.7%)
50–59	87 (16.6%)	117 (18.3%)	205 (17.5%)
60–69	36 (6.8%)	168 (26.3%)	204 (17.5%)
70–79	9 (1.7%)	119 (18.5%)	128 (10.9%)
80+	2 (0.3%)	62 (9.7%)	64 (5.5%)
Total	527	641	1,169

4.3. Education as a Barrier to Entry

A strong positive correlation exists between educational attainment and AI adoption ($p < .001$). Over 70% of AI users possess a university degree or higher, while those with lower education levels (junior high or below) remain largely excluded from the AI ecosystem. Differences are statistically significant across all six variables—cognition ($F=115.79$), usage ($F=247.88$), benefit-risk ($F=14.20$), trust ($F=10.77$), quality of life ($F=13.16$), and government service quality ($F=5.87$), all $p < .001$—establishing digital literacy as the most consequential lever for inclusive AI governance.

Table 2-5: Cross-Tabulation of AI Usage by Educational Level

Educational Level	Have Used AI	Have Never Used AI	Total (%)
Elementary or below	5 (0.9%)	108 (16.9%)	113 (9.7%)
Junior High School	10 (2.0%)	116 (18.1%)	126 (10.8%)
Senior / Vocational High School	92 (17.4%)	229 (35.6%)	320 (27.4%)
Junior College	52 (10.0%)	78 (12.2%)	131 (11.2%)
University	269 (51.2%)	102 (15.8%)	370 (31.7%)
Graduate and above	97 (18.5%)	9 (1.4%)	107 (9.2%)
Total	525	642	1,168

4.4. Geographic Disparity

This suggests that while access is unequal, the 'mindset' toward AI is becoming unified across Taiwan, calling for investment in digital connectivity rather than public awareness campaigns.

Urbanization is also a key factor ($p < .001$). AI usage is heavily concentrated in the six special municipalities (Taipei, New Taipei, Taoyuan, Taichung, Tainan, Kaohsiung) where digital infrastructure is superior. However, attitudinal measures (trust, quality of life, government service quality) show no significant urban-rural difference. This suggests that while access is unequal, the 'mindset' toward AI is becoming unified across Taiwan, calling for investment in digital connectivity rather than public awareness campaigns.

Table 2-6: Cross-Tabulation of AI Usage by Residence

Region	Have Used AI	Have Never Used AI	Total (%)
New Taipei City	108 (20.4%)	96 (15.0%)	204 (17.4%)
Taipei City	55 (10.5%)	63 (9.9%)	118 (10.1%)
Taoyuan City	58 (11.1%)	57 (8.9%)	116 (9.9%)
Taichung City	66 (12.6%)	73 (11.4%)	141 (12.0%)
Tainan City	34 (6.4%)	59 (9.2%)	92 (7.9%)
Kaohsiung City	65 (12.3%)	74 (11.6%)	139 (11.9%)
Other Counties	141 (26.7%)	221 (34.0%)	362 (31.2%)
Total	527	643	1,171

5. Functional Applications: How the Taiwanese Public Uses AI

The survey included an open-ended question (G3) to categorize the specific types of AI services used by the public. The 869 coded mentions were organized into 12 functional categories, revealing a clear hierarchy of AI use cases dominated by information retrieval and productivity tasks.

Table 2-7: Frequency of AI Functional Application Types

Code	Functional Type	Frequency (Mentions)
A	Information Search and Retrieval	355
B	Document Processing and Writing	111
C	Image Processing and Generation	106
D	Daily Life and Entertainment	50
E	Data Analysis and Processing	44
F	Customer Service and Interaction	35
G	Translation Services	33
H	Education and Learning	25
I	Programming and Technology	24
J	Smart Devices and Automation	17
K	Professional Services	14
L	Exploration and Trials	15
	Total	869

The data reveals that AI is primarily used as a tool for information search (40.8% of mentions), significantly outperforming more creative or professional tasks. By analyzing the top three usage types, we can see how educational and age-related factors influence the complexity of AI utilization.

Profile A: Information Search and Retrieval

Over 90% of those using AI for information retrieval are under the age of 60. Furthermore, 70.8% of this group holds a university degree or higher.

Table 2-8: Demographic Breakdown of AI Search Users (n=355)

Variable / Segment	Sample %	Population %
Gender – Male	49.5	48.9
Gender – Female	50.5	51.1
Age – 18–59	93.8	66.5
Education – University+	70.8	40.9
Region – Special Municipalities	72.4	69.2

Profile B: Document Processing and Writing

Document drafting is a highly specialized use case, concentrated among younger, highly educated urbanites. 85% of these users have a university education or above.

Table 2-9: Demographic Breakdown of AI Writing Users (n=111)

Variable / Segment	Sample %	Population %
Gender – Male	50.1	48.9
Gender – Female	49.9	51.1
Age – 18–49	83.5	48.6
Education – University+	85.0	40.9
Region – Special Municipalities	80.0	69.2

Profile C: Image Processing and Generation

This use case shows a unique gender dynamic, with women (53.2%) slightly outnumbering men. This suggests that AI image tools may have higher appeal in the creative and social media segments.

Table 2-10: Demographic Breakdown of AI Image Users (n=106)

Variable / Segment	Sample %	Population %
Gender – Male	46.8	48.9
Gender – Female	53.2	51.1
Age – 18–59	92.6	66.5
Education – University+	73.7	40.9
Region – Special Municipalities	67.8	69.2

6. Evaluative Perceptions: Trust, Risks, and Benefits

The survey then shifted from behavioral metrics to normative evaluations of AI's impact on society. The findings reveal a broadly optimistic public orientation, tempered by meaningful concerns about government service quality.

6.1. Benefit-Risk Assessment

The Taiwanese public is generally optimistic. Over half (56.6%) believe that the benefits of AI outweigh the risks. Only 2.0% viewed AI as purely risky. This near-80% neutral-to-positive sentiment provides a social environment for government AI adoption.

Table 2-11: Evaluation of AI Benefits and Risks

Evaluation	Frequency / Percentage
Entirely risky	21 (2.0%)
Risks > Benefits	204 (19.4%)
Risks = Benefits	232 (22.0%)
Benefits > Risks	554 (52.7%)
Entirely beneficial	41 (3.9%)
Total	1,052 (100.0%)

6.2. Trust in AI

Trust is high, with 67.9% of the population considering AI to be 'Trustworthy' or 'Very Trustworthy'. This provides strong expectation for government adoption of automated services. However, the 25.8% expressing distrust signals that transparency, explainability, and accessible redress mechanisms remain essential components of any democratically legitimate AI governance regime.

Table 2-12: Public Trust Levels in Artificial Intelligence

Trust Level	Frequency / Percentage
Very untrustworthy	30 (2.9%)
Untrustworthy	239 (22.9%)
Neutral	66 (6.3%)
Trustworthy	633 (60.6%)
Very trustworthy	76 (7.3%)
Total	1,045 (100.0%)

6.3. Impact on Quality of Life

Public sentiment regarding AI's impact on personal well-being is overwhelmingly positive. 82.6% of respondents believe AI will improve their quality of life; only 13.4% anticipate negative impact.

Table 2-13: Perceived Impact of AI on Quality of Life

Impact Level	Frequency / Percentage
Degrades quality	45 (4.2%)
Mostly degrades quality	98 (9.2%)
Neutral	43 (4.1%)
Mostly improves quality	686 (64.0%)
Significantly improves quality	199 (18.6%)
Total	1,071 (100.0%)

6.4. Impact of AI on Government Services

Governance design must address this gap through human oversight, transparent automated decision disclosure, and accessible appeal mechanisms.

While personal life optimism is high, perceptions of government service quality are more polarized. Nearly one-third of the population (32.8%) fears that AI will degrade the quality of government services. This divergence is a warning signal: citizens distinguish sharply between AI as a personal productivity tool and AI as a governance instrument. The concern reflects fears that automation reduces human contact and insulates agencies from accountability. Governance design must address this gap through human oversight, transparent automated decision disclosure, and accessible appeal mechanisms.

Table 2-14: Impact of AI on Government Service Quality

Perception	Frequency / Percentage
Degrades service quality	99 (9.6%)
Mostly degrades quality	240 (23.2%)
Neutral	24 (2.4%)
Mostly improves quality	499 (48.4%)
Significantly improves quality	170 (16.4%)
Total	1,031 (100.0%)

7. Inferential Statistical Analysis: Disentangling Attitudinal Drivers

To move beyond descriptive findings, the research utilized independent samples t-tests and Welch's ANOVA to identify the demographic determinants of AI orientation.

7.1. Gendered Perspectives

Males exhibit a significantly more positive attitude toward AI benefits (p=0.009) and higher trust levels (p=0.031) than females. However, there are no significant differences in perceived quality of life improvements. This suggests that gender-differentiated communication strategies are warranted for institutional AI adoption contexts but not for personal-use promotion.

Table 2-15: Independent Samples t-test for Gender Differences

Variable	Male (M, SD)	Female (M, SD)	t	df	p-value
Cognition	3.43 (1.22)	3.35 (1.81)	1.01	1160	0.313
Usage	2.06 (1.36)	1.99 (1.29)	0.94	1167	0.347
Benefit/Risk	3.45 (0.89)	3.30 (0.92)	2.63	1050	0.009**
Trust	3.53 (1.03)	3.40 (0.99)	2.16	1043	0.031*
Life Quality	3.83 (0.95)	3.84 (0.99)	-0.06	1069	0.949
Gov Service	3.44 (1.27)	3.34 (1.27)	1.16	1029	0.246

7.2. Generational Shifts

Welch's ANOVA confirms that younger citizens are more cognitively aware and engaged with AI. Notably, while usage and risk assessments vary significantly by age, 'Trust' remains consistent across all generations (p=0.11), suggesting that seniors are not inherently more distrustful—they simply lack the tools for engagement. The generational divide is therefore a capability gap, not an attitudinal divide, and should be addressed through access and skills programs rather than persuasion.

Table 2-16: Welch's ANOVA for Age Differences

Variable	Welch's F	p-value	Post Hoc (Games-Howell)
Cognition	45.13	<.001***	18–49 > 50+
Usage	207.97	<.001***	All groups significantly differ
Benefit/Risk	11.27	<.001***	18–29 > 30+; 30–49 > 50–69
Trust	2.00	0.11 (n.s.)	No significant difference
Life Quality	9.12	<.001***	18–49 > 70+
Gov Service	3.13	0.026*	18–29 > 50–69

7.3. Educational Influence

Education is the single most powerful predictor of positive AI sentiment. High educational attainment correlates with higher scores across all six variables ($p < .001$), establishing digital literacy investment as the primary governance lever for inclusive AI integration.

Table 2-17: Welch's ANOVA for Educational Levels

Variable	Welch's F	p-value	Post Hoc (Games-Howell)
Cognition	115.79	<.001***	University+ > Others
Usage	247.88	<.001***	University+ > Others
Benefit/Risk	14.20	<.001***	University+ > Others
Trust	10.77	<.001***	University+ > Others
Life Quality	13.16	<.001***	University+ > Others
Gov Service	5.87	<.001***	University+ > Others

7.4. Regional / Urban Variance

Urban residents have higher cognition and usage rates, but attitudinal measures (Trust, Life Quality, Gov Service) show no significant urban-rural difference. This suggests that while access is unequal, the 'mindset' toward AI is becoming unified across Taiwan. The geographic divide is therefore infrastructural rather than ideological, calling for digital connectivity investment rather than awareness campaigns.

Table 2-18: Independent Samples t-test for Regional Residence

Variable	Municipal (M, SD)	Non-Mun (M, SD)	t	df	p-value
Cognition	3.50 (1.12)	3.14 (1.32)	4.44	602.4	<.001***
Usage	2.11 (1.03)	1.83 (1.22)	3.52	763.1	<.001***
Benefit/Risk	3.39 (0.88)	3.34 (0.97)	0.81	530.8	0.420
Trust	3.47 (0.99)	3.45 (1.07)	0.35	562.9	0.725
Life Quality	3.83 (0.97)	3.86 (0.96)	-0.56	1069	0.577
Gov Service	3.37 (1.24)	3.44 (1.32)	-0.87	1029	0.385

8. Conclusion and Strategic Implications

The 2025 national survey reveals that Taiwan confronts the technological tipping point. With a cognitive awareness rate of nearly 90%, AI has transitioned from a future possibility to a present reality. However, the 'Digital Divide' remains the primary obstacle to equitable technological governance. Age and education act as powerful filters that determine who benefits from AI and who remains on the periphery. For government agencies, the high level of general trust (67.9%) provides a strategic opportunity to implement technology-based services. However, the skepticism regarding government service quality indicates that agencies must maintain transparency and accountability while introducing AI in providing services to the public. Automated systems must not be perceived as a means of reducing public contact or shirking accountability. Instead, AI should be positioned as a tool for enhancing fairness and precision.

Ultimately, the successful integration of AI in Taiwan will depend on the state's ability to maintain democratic legitimacy in an era of automated decision-making.

Strategic focus should be directed toward three priorities. First, bridging the generational gap requires designing AI-assisted services with intuitive interfaces for the 60+ population and investing in targeted skills-building programs. Second, educational outreach should enhance digital literacy for non-university-educated citizens—nearly 60% of the population—to prevent technological disenfranchisement. Third, transparent bureaucracy requires ensuring that technology-based policies include mechanisms for human review and public disclosure, so that AI enhances rather than undermines democratic accountability. Ultimately, the successful integration of AI in Taiwan will depend on the state's ability to maintain democratic legitimacy in an era of automated decision-making. By addressing the socioeconomic barriers identified in this report, Taiwan can ensure that the AI revolution serves as a tool for social inclusion rather than a driver of new inequalities.

Appendix: Sample Demographics

Table 2-19: Gender Distribution

Gender	Frequency
Male	573 (48.9%)
Female	598 (51.1%)
Total	1,171

Table 2-20: Age Distribution

Age Group	Frequency
18–19	24 (2.0%)
20–29	149 (12.8%)
30–39	177 (15.1%)
40–49	219 (18.7%)
50–59	205 (17.5%)
60–69	204 (17.5%)
70–79	128 (10.9%)
80+	64 (5.5%)
Total	1,169

Table 2-21: Educational Attainment Distribution

Educational Level	Frequency
Elementary school and below	113 (9.7%)
Junior high school	126 (10.8%)
Senior high school / Vocational	320 (27.4%)
Junior college	131 (11.2%)
University	370 (31.7%)
Graduate degree and above	107 (9.2%)
Total	1,168



Part 3
Perception and Attitude towards AI Development – Evidences from Taiwan Government Bureaucrats Survey (TGBS)

1. Research Background

With the rapid proliferation and increasing affordability of artificial intelligence (AI)—particularly the advent of generative artificial intelligence (GenAI) in late 2022—governmental organizations and public administrators worldwide have begun integrating these technologies into public service and administrative domains. Through exploratory Proof of Concept (PoC) projects, the public sector has accumulated significant experiential knowledge regarding AI implementation. This experience provides critical insights into the perceived benefits, inherent risks, and the administrative capacity required for risk management, ultimately serving as a foundational reference for strategic decisions on scaling AI adoption.

Despite these emerging phenomena, the current literature remains dominated by isolated case studies, leaving a notable gap in comprehensive empirical data. Specifically, there is a lack of evidence from civil servants

regarding how AI implementation experience shapes institutional evaluations of efficacy, risk, and management capacity, and how these factors subsequently influence the long-term disposition toward continued AI integration.

Referring to an analytical framework (BRiCS as detailed below) for AI governance issues, this final part reports a part of the empirical results from Taiwan Government Bureaucrats Survey (TGBS) conducted in 2025. The empirical results particularly reveal the status quo of AI usage and adoption by the civil servants in Taiwan, as well as how they perceive the actual and expected benefit and cost of applying AI in governments. The associated cost for ensuring AI benefit and properly managing AI risk will also be reported and illustrated, which may affect how the government bureaucrats evaluate the future of AI development.

2. The BRiCS Framework: A Multi-Stakeholder Approach to AI Adoption Decisions

The BRiCS framework below (Figure 3-1), developed and customized for diverse policy settings by the author (Hsiao 2025), is designed to support the multi-stakeholder analysis required for responsible, inclusive, and sustainable AI governance. The name is an acronym standing for its four core analytical dimensions, including AI-related Benefits (B), Risks (Ri), Costs/Conditions (C), and Stakeholders (S). The framework takes the form of a decision matrix. Along one axis are five categories of stakeholders, carefully distinguished to ensure that all parties affected by given AI applications are considered.

Figure 3-1: The BRiCS Framework for AI-driven Public Services / Applications

Arguments & evidences / AI PoC & the int./ext. Stakeholders	Positive process/ outcome/ impact (Benefit)	Negative process/ outcome/ impact (Risk)	Cost/condition to ensure B or manage Ri (CB & CR)
(S1) Target users (TAs)			
(S2) Those affecting TA			
(S3) Primary providers / public authorities	Immediate/delayed Short/long-term Explicit/implicit Sensible/sensational		Political Economic Social Technological Ecological
(S4) Partnering cross-sector providers			
(S5) General public & attentive groups	…		…
…			

- S1 — Primary service recipients (target audience): The individuals or groups who are the direct intended beneficiaries of the AI-driven public services.
- S2 — Others who influence or are affected by the target audience: Those who are not the primary beneficiaries but whose interests are implicated positively or negatively by AI-assisted public services.
- S3 — Primary service providers: The specific government agencies with primary responsibility for the AI applications.
- S4 — Collaborative service providers: Partner public agencies, private for-profit technology vendors, data providers, or non-profit civil society organizations that co-produce the AI services.
- S5 — The general public, community groups, and attentive issue-specific stakeholders: Those who have a broader interest in how AI is used as public services and administration, even if they are not direct recipients or providers of the specific AI services, such as human rights groups.

Along the stakeholders (S) above are the three analytical dimensions through which each stakeholder's interests must be assessed, including benefit (B), risk (Ri) and cost/condition (C) related to AI-assisted public services, whether they (namely B, Ri, C) are immediate or delayed, short-term or long-term, explicit or tacit, direct or indirect, rational or affective etc.

- Benefits (B) refers to the positive processes, outputs, values, and benefits that the AI application generates and may affect the stakeholder (S) categories above.
- Risks (Ri) refers to the negative processes, outputs, side-effects, and potential harms and may affect the stakeholder (S) categories above.
- Costs and Conditions (C) refers to relevant resources, investments, and enabling conditions required to realize the actual or anticipated benefits (B) and/or manage the identified risks (Ri) as illustrated above. These may include financial resources, technical infrastructure, human capital, legal frameworks, or institutional arrangements, etc.

The value of the BRiCS framework proposed above lies in its systematic insistence on considering all relevant stakeholders across all three analytical dimensions. In practice, AI governance decisions, often if not always, privilege the perspectives of the deploying agency (S3) and focus primarily on operational efficiency benefits (B) while underweighting the risks and costs experienced by AI service recipients (S1) or broader society (S5). The BRiCS framework contributes to deliberation with diverse values aiming for the structured correctives to this tendency, ensuring that AI governance analysis is comprehensive, multi-perspectival, and sensitive to distributional concerns such as social equity.

In addition, The BRiCS framework also emphasizes that impacts can manifest in multiple temporal registers—immediately versus after potential delay, in the short term versus the long term—and through multiple causal pathways—directly versus indirectly, through rational versus affective mechanisms. This sensitivity is particularly important for AI governance, where

the most significant risks (such as erosion of public trust, algorithmic entrenchment of social biases, or long-term displacement of professional judgment) may be latent, diffuse, and slow-developing rather than immediate and visible. The political economy dimension—particularly the economic, social, technological, and ecological factors in the framework—further situates AI adoption decisions within their broader contexts, preventing the kind of techno-solutionist myopia that treats AI governance as a purely technical problem.

The previous two parts of this ADRN report may also be well positioned in the BRiCS framework. The legal and regulatory mechanisms explained in Part I points to the AI governance issues concerning all stakeholders (S) and specifically from the dimensions of AI-induced risks (Ri) and the potential costs and conditions (C) which may hopefully reduce the impacts of AI risks. The public survey data in Part II then exhibit how the general public (S1, S2, and S5 in Figure 3-1) perceive either positively or negatively (namely Benefit and Risk) and adopt AI services including trust (namely Cost/Condition for gaining AI benefit). The current Part III is focusing on how public agencies (S3 in Figure 3-1) adopt AI applications and perceive Benefits, Risks and the macro-level overall impact of adopting AI by government.

3. Research Design for Taiwan Government Bureaucrats Survey (TGBS)

The empirical backbone of TGBS to be presented in this Part III is a large-scale quantitative-oriented study regarding AI perceptions, attitudes, and practices among Taiwan's civil servants. The TGBS occupies a distinctive niche in the landscape of AI perception research: while most existing survey research focuses on the general public's attitudes toward AI (as those examined in Part II of the report), far less empirical attention has been directed toward the perceptions and experiences of the civil servants who are at the operational front line of government AI deployment.

This gap matters analytically and practically. Analytically, civil servants occupy a unique structural position with respect to AI planning and implementation: they are simultaneously potential users of AI tools in their professional practice, implementers of AI governance policies, and representatives of the state in citizen-facing AI interactions. Their knowledge, attitudes, and practices therefore mediate the relationship between AI governance frameworks (as designed by policymakers in Part I of the report) and AI governance outcomes (as experienced by citizens in Part II). Practically, understanding civil servants' perceptions of AI benefit, risk, and governance capacity is essential for designing effective AI training programs, institutional support structures, and implementation strategies.

The survey was conducted with a valid sample size of n = 1,044 civil servants drawn from across Taiwan's government agencies. The sampling design and data collection methodology were designed to produce a representative picture of Taiwan's government workforce, spanning (1) different levels of government (central, municipal, local), (2) different functional domains (citizen services, legal enforcement, policy research, administrative management, IT etc.), and (3) different seniority levels of Taiwanese bureaucratic system. The substantive scope of the TGBS survey covered four main thematic areas: (1) current AI adoption and application patterns in respondents' agencies; (2) perceived benefits of AI for individual work and organizational performance; (3) perceived risks and governance capacity; and (4) macro-level attitudes toward AI's societal impact. These thematic areas map directly onto the preceding BRiCS framework's analytical structure (Figure 3-1), grounding the theoretical model in systematic empirical evidence.

The TGBS fills this gap directly. Its sampling approach, which spans central and local government, multiple functional domains, and varied levels of seniority, makes it one of the most comprehensive surveys of civil servant AI perceptions in the Asia-Pacific region. The timing of the survey—September 2025, coinciding with the enactment of Taiwan's Artificial Intelligence Basic Act—gives it particular policy salience: it captures a snapshot of civil servant attitudes at a moment when Taiwan's AI governance

framework is being actively constructed, and when the gap between formal governance aspirations and operational realities is most visible and most consequential. The following sections will report and interpret the survey results concerning how based on some concepts of the BRiCS framework (Figure 3-1) particularly from the experiences and viewpoints of Taiwanese civil servants (S3).

- AI adoption and macro-level impact
- Benefits (B) by AI adoption
- Risks (Ri) by AI adoption
- Costs and conditions (C), namely AI governance capacity to ensure benefits and/or manage risks

4. AI Adoption in Taiwanese Government

This finding challenges the common perception that government is an inherently slow adopter of technology.

One of the most striking findings of the TGBS is the extent to which AI has already penetrated Taiwan's government operations. When asked whether their current agencies use AI, 42.9% of respondents answered affirmatively—a figure that significantly exceeds what many casual observers might expect for a public-sector workforce. This finding challenges the common perception that government is an inherently slow adopter of technology. It also suggests that AI diffusion in Taiwan's public sector is proceeding incrementally though not as explosively as private organizations.

Among the 42.9% of respondents whose agencies have already adopted AI, the distribution across functional application areas reveals clear patterns of differentiation (Table 3-1). Document processing emerges as by far the most prevalent AI application, with 73.9% of AI-adopting agencies. The specific applications mentioned in the questionnaire—public document drafting and proofreading, translation and correction, meeting minute transcription, report

and image generation, and press release writing—reflect the natural fit between large language models and the text-heavy workflows that dominate administrative work in government. The productivity gains from AI-assisted document processing are immediate, measurable, and relatively low-risk (given no sensitive data involved), which may explain why this application category has achieved such rapid and widespread adoption.

Table 3-1: AI Applications across Government Work

Government Work Domains (by AI-adopting agencies)	Adoption %
Document processing (drafting, proofreading, translation, transcription etc.)	73.9%
Policy research and data analysis (collection, synthesis, simulation, decision support etc.)	37.9%
Information technology applications (AI-assisted programming, AI model support etc.)	33.5%
Citizen services (AI-assisted public services, real-time online responses etc.)	33.0%
Personnel training (course design, training material development)	31.3%
Administrative process management (case review, regulatory lookup etc.)	25.0%
Project planning and budget formulation (project draft writing, resource allocation etc.)	18.1%
Public opinions analysis and risk early-warning (social monitoring, risk assessment etc.)	15.6%

The second and third most prevalent application area include policy research and data analysis and IT (information technology) support, used by 37.9% and 33.5% respectively of AI-adopting agencies, followed closely by citizen services at 33.0% and personnel training at 31.3%. Policy research and data analytical competencies are integral to manifesting the strengths of AI-embedded governance; such skills are increasingly indispensable for civil servants tasked with strategic planning and program evaluation. The IT category—which encompasses AI-assisted programming and AI models supporting specific operational functions—reflects the integration of AI into government's own digital infrastructure management. The citizen services category—including AI-powered consultation services and real-time online response systems—represents the most publicly visible form of government AI, directly shaping the citizen's experience of interacting with the state. Personnel training (31.3%) and administrative process management (25.0%) represent middle tiers of AI adoption, while project planning and budget formulation (18.1%), public opinions analysis and risk early-warning (15.6%) represent the frontier of AI adoption in government—areas where AI adoption may be growing but where governance challenges may be more complex.

The hierarchical structure of AI adoption, with document processing at the top and risk monitoring at the bottom, appears not arbitrary.

The hierarchical structure of AI adoption, with document processing at the top and risk monitoring at the bottom, appears not arbitrary. It may reflect the intersection of several factors: the maturity and accessibility of underlying AI technologies; the perceived risk and reversibility of different application types; the degree of human oversight that can be maintained; and the strength of institutional incentives and mandates for AI adoption. Document processing AI requires relatively low technical investment and produces easily verifiable outputs; algorithmic risk monitoring requires more sophisticated infrastructure and carries higher stakes for false positives and false negatives by public agencies. Understanding these dynamics is essential for designing adoption incentive structures and governance protocols that are appropriately calibrated to different application contexts.

5. Expected Benefits for AI Adoption

Despite around 40% of the respondents' agencies not yet adopting AI, TGBS asked all 1,044 respondents to assess the expected benefits of AI for their agencies' operation and their personal work, using a six-point helpfulness scale (1 = no benefit, 6 = very high benefit). The results (Table 3-2) reveal a consistently positive orientation toward AI's potential benefits, with important variations across benefit dimensions.

Table 3-2: Civil servants' Expected AI Benefits and Future Impact Assessments

Expected AI Benefits / Future Impact Dimensions	Mean (1–6 or 1–5)
AI can improve work efficiency and reduce manual errors	4.83 / 6
AI can improve decision-making efficiency	4.81 / 6
AI can improve decision accuracy	4.31 / 6
Through AI I can access the information I need	4.29 / 6
AI can improve decision fairness	4.12 / 6
AI can improve my personal work efficiency (next 3–5 years)	4.14 / 5
AI can improve government administrative efficiency (next 3–5 years)	3.86 / 5
AI can improve quality of government public services (next 3–5 years)	3.77 / 5

The two highest-rated benefit items are "AI can improve work efficiency and reduce manual errors" (mean = 4.83) and "AI can improve decision-making efficiency" (mean = 4.81). These two items—both focused on efficiency—receive the strongest endorsement, reflecting civil servants'

recognition of the practical productivity gains that AI can deliver in administrative settings. The high ratings for efficiency benefits are consistent with the adoption pattern observed in Table 3-1, where document processing (the most efficiency-oriented application) leads adoption.

Improved decision accuracy ("AI can improve decision accuracy" with mean = 4.31) and access to information ("Through AI I can obtain the information I want" with mean = 4.29) and occupy middle positions in the benefit ranking. These items reflect AI's potential to enhance not just the speed but the substantive quality of administrative decision-making—a more ambitious claim than pure efficiency improvement, but one that civil servants appear to view with moderate confidence. The lowest-rated benefit item is "AI can improve decision fairness" (mean = 4.12). While still positive (above 3.5 of 1-6 scale), the relatively lower rating on fairness—compared to efficiency and accuracy above—is significant. It may reflect the civil servants' awareness of the well-documented risks of algorithmic bias, or it may reflect uncertainty about whether AI can reliably operationalize the complex and contextually sensitive judgments that fairness in public administration and policy obviously requires.

While still positive (above 3.5 of 1-6 scale), the relatively lower rating on fairness—compared to efficiency and accuracy above—is significant.

The civil servants were also asked to anticipate how AI would affect key performance dimensions over the next three to five years, using a five-point scale (1 = significantly worse, 5 = significantly better). All three dimensions received ratings above the midpoint (3), indicating net positive expectations. As shown in Table 3-2, personal work efficiency receives the highest future-impact rating (4.14 / 5), while government service quality receives the lowest (3.77 / 5). This pattern may imply a plausible AI diffusion logic: the AI benefits are most legible and proximate at the individual level, while organizational and service-quality benefits remain substantially dependent on complementary institutional mechanisms that are more difficult to predict and implement. The relatively modest expectation for service quality improvement (3.77) is also worth noting in the context of the risk and governance capacity evidences discussed below.

6. Expected Risks for AI Adoption

The BRiCS framework (Figure 3-1) directs us to assess not only anticipated benefits but also perceived risks and the conditions necessary to manage those risks. As exhibited in Table 3-3, the TGBS survey results on this dimension are among the most analytically rich and policy-relevant findings in the entire study.

Table 3-3: Civil servants' Expected AI Risks

Perceived AI Risks	Mean (1–6)
Concern about over-reliance on AI by humans	4.33
Concern about humans losing control over AI	4.21
Concern about AI conflicting with ethical principles	3.90
Concern about AI potential harm to consumer or citizen rights	3.78
Concern about bias and discrimination by AI	3.60

That is, the civil servants in Taiwan are more worried about the broad existential challenge of human dependence on and control over AI than about the specific, institutionally actionable risks of bias, rights violations, or ethical conflicts.

On the risk side, the respondents were asked how concerned they are about various potential negative consequences of AI, using a six-point concern scale. The two highest-rated concerns are "over-reliance on AI by humans" (mean = 4.33) and "humans losing control over AI" (mean = 4.21). These two items, both focusing on the relationship between human agency and AI autonomy, receive higher concern ratings than the more specific governance-relevant risks of ethical conflict (3.90), harm to consumer or citizen rights (3.78), and bias and discrimination (3.60). These may be regarded as striking findings. That is, the civil servants in Taiwan are more worried about the broad existential challenge

of human dependence on and control over AI than about the specific, institutionally actionable risks of bias, rights violations, or ethical conflicts.

This pattern may reflect several dynamics. First, the civil servants may have a more acute sense of how AI adoption changes organizational practices and professional identities than of how it affects outcomes for citizens because the former is their direct daily experiences, while the latter is mediated through feedback channels that may be delayed. Second, the relatively lower concern ratings for bias and discrimination may not indicate complacency but rather unfamiliarity: if the civil servants have limited knowledge of how algorithmic bias operates, they may underestimate its significance. Third, the high concern for human control loss may be partly driven by AI discourse in the broader public sphere—debates about AI alignment, autonomous weapons, and superintelligence (or artificial general intelligence, AGI)—which may have influenced the civil servants' framings even if their practical relevance to administrative AI is by far limited and unobvious.

7. Costs and conditions to ensure AI Benefits or Manage AI Risks

The study conceptualizes AI governance capacity, with the survey results in Table 3-4, as how the civil servants (S3) assess the necessary costs and conditions (in the BRiCS framework, Figure 3-1) to ensure AI benefits and/or manage AI risks. The results are perhaps the most sobering findings relative to those reported in the previous parts. When asked about the resources and conditions required to properly govern AI, the respondents rate their agencies as severely under-resourced on institutional dimensions: "My current agency has sufficient funding to maintain AI services" (mean = 2.78) and "My current agency has adequate technical control over AI" (mean = 2.65). Both ratings fall far below the midpoint (3.5) of the six-point scale, indicating that a majority of the civil servants in Taiwan believe their agencies lack adequate financial resources and technical capacity for responsible AI governance. These represent a substantial and potentially serious governance capacity gap.

Table 3-4: Civil servants' Assessment for AI Governance Capacity

AI Governance Capacity Items	Mean (1–6)
I have sufficient information literacy for AI	3.62
I understand AI-related privacy regulations	3.42
Agency has sufficient funding to maintain AI services	2.78
Agency has adequate technical control over AI	2.65

Individual-level capacity assessments are somewhat higher but still moderate, including "I have sufficient information literacy for AI" (mean = 3.62) and "I understand AI-related privacy regulations" (mean = 3.42). These ratings suggest that the civil servants are aware of their own knowledge limitations with respect to AI, an important precondition for effective learning and capacity-building, and also implying that current AI training provisions are insufficient in Taiwan.

Closing this governance gap, through sustained investments in public agency funding, technical capacity, and human capital development, should be accounted as the most urgent priority in Taiwan's AI governance agenda.

Together, the risk perception (Table 3-3) and capacity assessment (Table 3-4) reveal a potentially dangerous asymmetry in Taiwan's government landscape: AI adoption becomes prevailing and generating high benefit expectations (Table 3-2), but the institutional and individual governance capacities required to manage AI responsibly are lagging significantly behind. Closing this governance gap, through sustained investments in public agency funding, technical capacity, and human capital development, should be accounted as the most urgent priority in Taiwan's AI governance agenda.

8. Macro-Level Perceptions of AI Broader Impact

Beyond assessments of AI in their immediate professional contexts, the TGBS survey also probed the civil servants' macro-level views on the overall and long-term impact of AI across five societal dimensions. While asked to characterize the direction of AI's impact using a four-point scale (from 1 definitely harmful to 4 definitely beneficial), the respondents show the most optimistic attitudes toward "AI impact on economic development" (mean = 3.11), closely followed by attitudes toward AI impact on "general public" (mean = 3.11), "society as a whole" (mean = 3.09), "human civilization" (mean = 3.07), and "government" (mean = 3.07). This may reflect the association between AI and economic competitiveness, technological innovation, and productivity growth that is prominent in Taiwan's public discourse. The lowest mean scores (3.07) are shared by government impact and human civilization impact—the former perhaps reflecting awareness of institutional limitations and governance challenges, the latter perhaps reflecting uncertainty about long-term existential effects.

Table 3-5: Civil servants' Assessment for AI Broader Impact

Domains of AI Impact	1 (%)	2 (%)	3 (%)	4 (%)	Mean (SD)
AI impact on economic development	1.0	5.6	69.3	24.2	3.17 (0.56)
AI impact on the general public	0.6	5.9	75.9	17.6	3.11 (0.50)
AI impact on society as a whole	1.0	7.5	72.7	18.9	3.09 (0.54)
AI impact on human civilization	2.0	12.3	62.4	23.4	3.07 (0.66)
AI impact on government	0.9	6.4	77.1	15.6	3.07 (0.50)

Scales: 1-definitely harmful, 2-mixed/harmful, 3-mixed/beneficial, 4-definitely beneficial

While the vast majority (more than 85%) of the responding civil servants appear overall optimism towards AI impact, the expected AI impact on human civilization appear relatively less consistent with highest standard deviation (0.66) and proportion of unconfident assessment (14.3% totally).

The mean scores cluster in a narrow range between 3.07 and 3.17, suggesting that macro-level assessments are relatively stable across domains, and that the moderate net-positive orientation is robust across different framings of the AI impact questions. While the vast majority (more than 85%) of the responding civil servants appear overall optimism towards AI impact, the expected AI impact on human civilization appear relatively less consistent with highest standard deviation (0.66) and proportion of unconfident assessment (14.3% totally). This pattern suggests that, while the civil servants are net positive about AI's near-term impacts on specific social domains, they harbor somewhat greater uncertainty about AI's long-term (or perhaps shorter than

expected) civilizational consequences—a concern that resonates with broader scholarly and public debates about AI's trajectory. It also suggests that effective AI governance communication should not simply emphasize near-term benefits but should also address the long-term uncertainty that thoughtful civil servants in the TGBS survey are clearly already registering.

9. Conclusion: Transcending Duality by Evidence-Based AI Governance

This Part III of the ADRN report as interpreted above shows that evidence-based AI governance goes beyond simplistic conflict between innovation and risk control. That is, the judicious use of AI can achieve an "adaptive and mutually reinforcing" state that transcends the duality and seemingly conflicts between the benefits and risks of AI adoption. The aspiration should not be regarded as compromise—accepting less AI innovation in exchange for more safety, or tolerating more AI risk in pursuit of greater efficacy—but as synthesis: AI governance designs and institutional arrangements in which safety and innovation reinforce rather than undermine each other.

The TGBS data provide both an empirical foundation for this aspiration and a sobering account of the AI governance duty that remains to be done by collaboration among public, private (for-profit and non-profit) organization, and individual citizens. On the foundation side: the civil servants in Taiwan are already using AI extensively in their daily work (Table 3-1), they hold predominantly positive views of AI's potential benefits (Table 3-2), and they view AI's overall societal impact as net positive across multiple domains (Table 3-5). These findings suggest that the social and professional conditions for an evidence-based AI governance agenda are more favorable in Taiwan than cautious or techno-pessimistic framings.

On the challenging side, nevertheless, AI risk (Table 3-3) and particularly the governance capacity data (Table 3-4) reveal serious gaps. The civil servants in Taiwan assess their agencies as under-resourced in both

funding and technical capacity for competent AI governance. Their self-assessed information literacy and knowledge of AI privacy regulations are only moderate. And while their concern about over-reliance on AI and loss of control is high, their concern about specific, institutionally actionable risks—bias, rights violations, ethical conflicts—is lower than might be expected given the state of AI governance scholarship reported in the recent studies such as Alon-Barkat & Busuioc (2023). The distinction suggests that the civil servants need not just general AI awareness but also specifically targeted and customized task-oriented on-job training sessions on the governance-relevant risks that are most amenable to institutional responses.

Some policy implications may be derived from the TGBS evidences and analyses. First, Taiwan's AI governance agenda should prioritize closing the institutional capacity gap. This means sustained public investment in agency-level AI governance infrastructure: dedicated funding for AI risk management, technical capacity for algorithmic auditing and oversight, and legal expertise for navigating AI-related privacy and liability questions. Second, civil service training programs should move beyond general digital literacy toward governance-specific AI competencies: understanding algorithmic bias, interpreting AI outputs critically, applying human oversight protocols, and communicating AI-informed decisions to citizens in ways that are timely, transparent, and accountable. Third, the comprehensive AI risk taxonomy especially for public service and administration is highly needed and should inform the development of a feasible and risk-based regulatory framework for government AI adoption, which matches AI governance intensity to risk severity, avoids both over-regulation of low-risk applications and under-regulation of high-risk ones, and builds in mechanisms for agile adaptation as AI technology and its governance challenges continue to evolve.

The distinction suggests that the civil servants need not just general AI awareness but also specifically targeted and customized task-oriented on-job training sessions on the governance-relevant risks that are most amenable to institutional responses.

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