

November 5, 2025
Global HR Forum

Challenges and Opportunities of Gov AX in Korea

Graduate School of Governance
Sungkyunkwan University

Taewoo Nam
namtaewoo@skku.edu

Wave of Gov AX

- Gov AX: Government AI Transformation
- Global impact of AI transformation on work, communication, industry, ... and government
- Gov AX: fad or fashion? rhetoric or reality?
- AI (GenAI) penetration into daily lives (i.e., Chat GPT since early 2022) -> perception on transformative changes
- Private sector: AI = competitive power, rapid AI-based innovation in organization, structure, and services
- Public sector: massive investments in AI infra, legislations, institutions (DOGE in U.S., Incubator for AI in U.K.)

Steps toward Gov AX

- Symbolic and substantial institutional efforts for Gov AX
- Ministry of the Interior and Safety > Bureau of Digital Government Innovation > Division of Public Data and AI
- Ministry of Science and ICT > Director of AI Infrastructure
- Advisor (vice-minister level) to the President for AI Future Planning

National Paradigms

- Computerization: National Computerization Agency
 - Informatization: National Information Society Agency
 - Intelligent Information Society
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- Park Geunhye Administration (2013–2017): Gov 3.0
 - Moon Jaein Administration (2017–2022): Digital New Deal
 - Yoon Seokyeol Administration (2022–2025): DPG
 - Lee Jae-myung Administration (2025–): AI government?

Gov AI for Innovation

- Achieving public values
- Efficiency: RPA, automation, labor replacement
- Effectiveness: especially public service innovation, customized-tailored-personalized targeting
- Democracy: supporting decision-making, informed decision, filtering noises
- Responsiveness: AICC, chatbot, 24/7/365 availability
- Accountability? Ethics?

AI Risks in Government As Well

- Generative AI's hallucination: false criminal cases
- Data bias: Garbage-In-Garbage-Out
- Auto-profiling
- Undetectable, unrecognizable, and uncontrollable plagiarism
- Threats to intellectual properties
- Global platforms' monopoly, oligapoly: Winners take all
- Synthetic outputs generated by unlimited repetitive learning: bias-based averaging out, endangered cultural diversity
- Energy and resources drain
- Developing countries abused

AI Risks to Individual Citizens

- Addiction, misuse, abuse
- AI-born generation vs. others
- Eliza effect: too much dependency on AI as a friend
- No more context
- AI gaslighting

Challenges of Gov AX in Korea

- Bureaucratic inertia, internal regulations, government conservatism as grated
- Increasing gap between government and firms in the DX-to-AX trend
- Not just in sectors gaps but in gaps among individual employees (data literacy, AI literacy)
- Central-provincial-local gaps, urban-rural gaps in AX capabilities
- Mismatch bewteen centraliztion (economy-of-scale by consistency and standardization) and decentralization (policy diffusion by competition and autonomy)

Gov AI Initiatives from 2025

- Gov AI master plan
- Institutional and legal supports for Gov AI
- Pan-governmental AI infra based on general AI (but sovereign AI)
- AI literacy and AI talent
- Trustworthiness and security
- AI agent

Gov AI master plan

- Innovating both internal management and services for citizens
- Targeting key tasks and missions
- Blue print for all agencies in the public sector
- Steps for adopting and using AI
- Linking organizational performance evaluation with Gov AI capacity building

Institutional and legal supports for Gov AI

- Upgrading “The Law of Data-based Public Administration” to “The Law of AI and Data-based Public Administration”
- Stipulating national supports for Gov AI adoption and usage
- Stipulating items for AI trustworthiness
- Encompassing basic principles, rules, and regulations
- Chief AI Officer in all government agencies
- AI impact assessment

Pan-governmental AI infra

- Utilizing AI models developed by the private sector
- Centralized efficient investments on common infra (without overlapping procurement by localities)
- Promoting public-private partnerships
- AI-based common services for government: data training for general administration, AI-based template, AI-supportive translation, customer interactions
- Developing intelligent work management platform

AI literacy and AI talent

- Upgrading AI literacy in civil services: creative usage
- Gov AX talents: internal leaders + external exchange
- AI Talent Surge in U.S.: agency-level agile recruitment of AI experts
- Mission-oriented education and training

AI agent

- AI agent: AI as a citizen requests customized and personalized services
- AI employee: AI as a government employee works for an agency
- Local experiment, targeted area

Remaining Concerns

- Compliance to the top-down initiative
- Goal displacement: AI itself is not a goal
- Pitfalls of master plan: comprehensiveness, specificity, ambiguousness
- Central government's supply mind + planner mind
- Paradox of big suggest in the e-government era
- Rationalism vs. incrementalism
- Democracy vs. authoritarianism

Remaining Concerns

- No New York Yankees in the public sector: how can attract AI talents?
- Rule of law in Korea? Rule by law!
- Difference between supreme goal of the legislation and policy implementation
- Mobilization effect vs. reinforcing effect
- Impact assessment of AI algorithm prior to use
- Who takes the role of Chief AI Officer? CIO, CDO, CTO,...

Back to Optimism

- AI can change the work to work
- The work of government employees will be redefined with AI
- Trust in government rises with AI
- AI helps agile responsiveness to environmental change
- Citizens already feel the momentum of big wave (beyond NPM)
- PPP activated
- Consensus on change goes beyond sectoral, generational gaps