



GEORGIAN FOUNDATION FOR
STRATEGIC AND INTERNATIONAL STUDIES

**EXPLORING THE APPLICATION OF AI IN THE PUBLIC SECTOR.
THE CASE OF ESTONIA AND LESSONS FOR GEORGIA**

SALOME ABRAMISHVILI

225

EXPERT OPINION





საქართველოს სტრატეგიისა და საერთაშორისო ურთიერთობათა კვლევის ფონდი
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The publication is made possible with the support of the US Embassy in Georgia. The views expressed in the publication are the sole responsibility of the author and do not in any way represent the views of the Embassy.

Technical Editor: Artem Melik-Nubarov

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ISSN 1512-4835

ISBN

Introduction

Artificial Intelligence (AI) is rapidly transforming societies globally, offering unprecedented opportunities across sectors. The integration of AI into the public sector promises enhanced service delivery, efficiency, and significant decision-making improvements. Nations worldwide recognize AI's strategic importance and are adopting National AI Strategies (NASs) to guide its development and deployment.

This paper explores AI's evolution and impact in the public sector, focusing on applications and strategic frameworks using Estonia as an example—a pioneer in AI governance within the EU. Estonia's approach serves as a model for Georgia, a country with post-Soviet roots and EU integration aspirations. By examining Estonia's National AI Strategy and its implementation, this paper identifies key lessons and recommendations for Georgia to develop its tailored strategy.

Understanding and Defining Artificial Intelligence

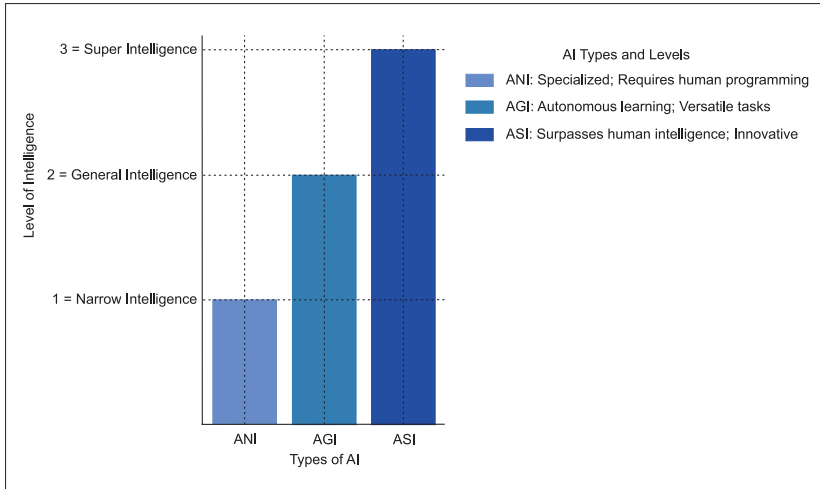
Despite its widespread use and notable developments, there is still no universally accepted definition of AI, which raises the fundamental issue of comprehending artificial intelligence in full (Wirtz, Weyerer and Geyer 2019, 598). AI is even sometimes used synonymously with related ideas, such as robotics, machine learning, and automated decision-making. AI is defined by the European Commission as systems that exhibit intelligent behavior by assessing their surroundings and acting somewhat autonomously to accomplish predetermined objectives (High-Level Expert Group on Artificial Intelligence 2018, 1).

Many academics have also tried to define AI by focusing on various elements, including the capacity to deal with uncertainty and learn from experiences, adapt, and handle information. AI is further explained by Russell and Norvig (Wirtz, Weyerer and Geyer 2019, 599). They consider two aspects of technology: Human behavior, which is subsequently performed by machines, and human mental processes and reasoning. They emphasize how AI systems use techniques like robotics, computer vision, natural language processing, knowledge representation, automated reasoning, machine learning, and robotics to mimic cognitive thought and predict human behavior. They distinguish between four different approaches to artificial intelligence: Rationally thinking machines,

rationally acting machines, human-thinking machines, and human-acting machines. The many functions and uses of AI technologies are framed by these dimensions.

Figure 1. Types of AI and their Characteristics. Source: Author’s Elaboration Based on Wirtz, Weyerer and Geyer (2019).

Types of Artificial Intelligence and Their Characteristics



Wirtz, Weyerer and Geyer (2019, 599) state that AI refers to the capability of a computer system to exhibit humanlike intelligent behavior characterized by core competencies such as perception, understanding, action, and learning. AI technology integrates these competencies into computer applications, enabling human–computer interaction and data interaction. According to Adams et al. (2012, 25-42) and Thierer, Castillo and Russell (2017, 3-54), AI can be categorized into three main types: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), and Artificial Super Intelligence (ASI). ANI specializes in solving specific problems and requires human programming (Rosa, Feyereisl, and The G. Collective 2016, 1-54). In contrast, AGI is capable of autonomous learning and can apply its experiences and skills to various tasks without human intervention (Adams et al. 2012, 25-42). ASI represents a theoretical level of intelligence that surpasses human intelligence and capabilities, leading to advancements and innovations beyond human comprehension.

Artificial Intelligence in the Public Sector

AI has enormous potential to transform government by improving decision-making, increasing efficiency, and augmenting services.

Table 1. Key Aspects and Examples of AI Implementation in the Public Sector. Source: Author's Elaboration.

| Aspect | Description | Examples |
|--|---|--|
| Improving Public Service Delivery | AI-based systems that enhance knowledge management, automate processes and provide virtual assistance. | Knowledge management for clinical documentation; RPA in immigration processing; Chatbots for 24/7 assistance. |
| Boosting Efficiency | Process automation, predictive analytics and identity analytics streamline operations, leading to cost savings and better resource allocation. Cognitive robotics and autonomous systems optimize resource use. | Predictive analytics in police departments; Identity verification; Autonomous vehicles and robot-assisted surgeries. |
| Transforming Decision-Making Processes | AI governance and real-time data analysis enhance decision-making capabilities, balancing benefits with ethical considerations. | Policy and operational decisions informed by AI analysis; AI governance. |

The integration of AI in government services can lead to substantial improvements in public service delivery. For instance, AI-based knowledge management systems can generate, systematize, and share knowledge, aiding in tasks such as clinical documentation (Lin et al. 2018, 563-65). AI process automation systems can handle routine administrative tasks, reducing waiting times and administrative burdens. For example, robotic process automation (RPA) can streamline immigration application processing, resulting in a faster and higher-quality service (Chun and Wai 2007, 1684-91). Virtual agents, including chatbots and avatars, enhance service delivery by providing 24/7 assistance. These agents can help citizens fill out forms, access services, and obtain information, thereby improving accessibility and efficiency (Zheng et al. 2018, 7704-7711).

Predictive analytics and data visualization tools enable governments to anticipate and respond to needs more effectively. For example, predictive analytics can help police departments identify crime hotspots and allocate resources proactively (Power 2016, 579). Process automation and predictive analytics streamline administrative processes, leading to cost

savings and better resource allocation (Eggers, Fishman, and Kishnani 2017, 3). AI applications such as identity analytics enhance security and efficiency by automating identity verification and fraud detection processes. Cognitive robotics and autonomous systems also contribute to increased efficiency. Autonomous vehicles for public transport and robot-assisted surgeries demonstrate how AI can improve service delivery while optimizing resource use. Additionally, AI-driven recommendation systems and intelligent digital assistants provide personalized services and support, further enhancing administrative efficiency and service quality (Roberts 2023, 9-11).

AI has the potential to transform decision-making processes within the public sector. AI governance involves making informed decisions about deploying and using AI technologies to optimize administrative processes and improve public service delivery. Regulatory decision-making must balance economic and social benefits with ethical considerations, such as bias, fairness, privacy, and the preservation of democratic values (Wirtz, Weyerer and Geyer 2019, 603). By providing real-time data analysis and predictive insights, AI enhances the decision-making capabilities of public managers. AI systems can analyze large datasets quickly and accurately, offering valuable insights that inform policy and operational decisions (Brynjolfsson and Mitchell 2017, 1532). This capability allows public managers to focus on complex, high-stakes decisions, while AI handles routine data processing and analysis tasks.

National Artificial Intelligence Strategies (NASS)

AI strategies have become essential tools for countries to effectively govern and innovate with AI technologies. These strategies represent a unified effort by nations to use AI's transformative potential while addressing the inherent risks. By providing a framework for the development and deployment of AI, these strategies ensure that progress is balanced with caution. Their goal is to maximize the societal benefits of AI while safeguarding against potential downsides.

The adoption of AI strategies highlights their importance in setting national priorities and fostering innovation. For example, the European Union's Artificial Intelligence Act of 2021 consolidates legislative measures intended to limit risks associated with AI technologies, ensuring adherence to fundamental rights and ethical standards (European Commission 2023). This approach illustrates the EU's commitment to promoting technological advancement while upholding ethical principles.

Globally, over 65 countries have either adopted National AI Strategies (NASs) or are currently in the process of developing them. This widespread effort demonstrates a global alignment of resources and regulations to promote AI development (OECD n.d.). These strategies include various initiatives, such as expanding AI research, building infrastructure, attracting talent, and implementing ethical standards. This collective effort exemplifies a comprehensive approach to addressing the benefits and challenges posed by AI on a global scale.

Main Objectives of National AI Strategies

Strategic objectives of AI strategies include enhancing economic competitiveness, fostering human capital development, prioritizing ethics and regulations, and addressing societal implications caused by AI deployment, as highlighted in Table 2.

Table 2. Strategic Framework for AI Integration. Objectives, Elements, and Initiatives. Source: Author's Elaboration.

| Strategic Objectives | Key Elements | Examples/Initiatives |
|-----------------------------|--|--|
| Economic Competitiveness | Innovation ecosystems, entrepreneurship, FDI attraction, industrial transformation | Establishment of AI startup hubs, initiatives to attract global tech investments, fostering cross-sector collaboration |
| Human Capital Development | Integration of AI into education, professional training and reskilling, digital literacy initiatives | Integration of AI courses in formal education, upskilling programs for professionals in AI technologies, national campaigns for digital literacy |
| Ethics and Regulation | Ethical guidelines, regulatory frameworks, transparency, accountability, human-centric design principles, AI ethics committees | Development of AI ethics frameworks, establishment of regulatory bodies for AI oversight, promotion of transparent AI decision-making processes |
| Societal Challenges | Economic recovery post-crisis, optimized healthcare delivery, environmental sustainability, wildlife conservation | AI-driven solutions for healthcare optimization, environmental monitoring using AI technologies, wildlife conservation efforts through AI-based species identification |

Cath (2018, 1-6) argues that many National AI Strategies (NASs) prioritize economic growth and innovation to establish leadership in AI globally. This involves promoting entrepreneurship, attracting Foreign Direct Investment (FDI), and developing a competitive AI ecosystem. Skill development, industrial transformation, and job creation are key goals, aiming to use AI for high employment and productivity gains.

Human capital development is another critical objective of NASs (Van Roy et al. 2021, 4-11). It aims to prepare the workforce for an AI-driven future by integrating AI courses into formal education, from schools to universities. Targeted training and reskilling programs are also part of the strategy to empower current professionals with AI competencies across various sectors. Promoting digital literacy initiatives enhances understanding and engagement with AI technologies, enabling individuals to navigate and assess AI advancements critically. These efforts aim to cultivate a skilled and adaptable workforce capable of using AI's transformative potential to address digital era challenges effectively.

Ethics and regulation are the next key objectives of NASs, seeking to establish effective governance frameworks and guidelines for AI applications (Van Roy et al. 2021, 4-11). This includes ensuring transparency in AI decision-making, fostering accountability, prioritizing human-centric design principles, and setting up AI ethics committees for ongoing guidance and monitoring. These initiatives promote responsible AI development, build trust, and protect societal interests in an evolving technological environment.

Another key objective of NASs is to address societal challenges like economic recovery post-crises, such as post-COVID-19. These strategies aim to deploy advanced AI technologies to bolster economic resilience and recovery efforts (Van Roy et al., 2021, 5-18, 49-51). AI-driven solutions optimize healthcare delivery, enhance disease detection, and improve epidemiological modeling during public health crises, thus improving response capabilities and minimizing health impacts. Furthermore, AI strategies emphasize environmental sustainability by enhancing resource management and monitoring through innovative applications. Estonia showcases these efforts with AI-driven projects such as the "Ice Map" initiative, which monitors ice and snow cover in Estonian waters using satellite data to aid maritime safety. Another initiative focuses on remote

monitoring of forest resources using multispectral satellite data and machine learning to create maps for sustainable forest management and economic planning. Estonia also pioneers AI-based solutions for wildlife monitoring and species identification through image analysis, contributing to conservation efforts.

Policy Instruments in National AI Strategies

Policy instruments in NASs, including regulatory instruments, financial incentives, and voluntary standards/certifications, shape a sustainable and trustworthy global AI ecosystem. They support ethical AI development, foster innovation via financial incentives, and promote responsible AI practices. These efforts balance technological advancement with societal values and public interests (Djeffal, Siewert and Wurster 2022, 1799-1817).

Table 3. Key Policy Instruments in NASs. Source: Author’s Elaboration based on Djeffal, et al. 2022.

| Policy Instrument | Description | Examples |
|-------------------------------------|---|--|
| Regulatory Instruments | Laws and regulations ensuring ethical AI development, addressing data privacy and enforcing algorithmic accountability. Oversight bodies monitor compliance for societal alignment. | Germany and Norway’s AI regulatory frameworks |
| Financial Incentives | Government-provided funding, tax breaks, and grants to stimulate AI R&D and commercialization, fostering private sector investment, collaboration, and national AI competitiveness. | Public investments in AI R&D and technology clusters |
| Voluntary Standards/ Certifications | Industry-led initiatives promoting responsible AI practices and public trust. Guidelines ensure ethical norms in AI deployment, developed collaboratively for industry guidance. | Collaborative governance models in Sweden and France |

Regulatory instruments are essential for ensuring ethical AI development and deployment. Governments enact specific laws and regulations addressing ethical concerns, data privacy, and algorithmic accountability. Oversight bodies monitor compliance, ensuring AI applications align with societal values. For instance, Germany and Norway have comprehensive frameworks focusing on data protection, privacy rights, and ethical AI deployment (Djeffal, Siewert and Wurster 2022, 1799-1817).

Financial incentives play a vital role in stimulating AI research, development, and commercialization. Governments provide public funding, tax breaks, and research grants to support AI initiatives and foster innovation. These incentives encourage private sector investment in AI technologies, promote industry-academia collaboration, and enhance national competitiveness globally. Public investments target AI R&D, infrastructure, and technology clusters, fostering a conducive environment for AI-driven growth (Djeffal, Siewert and Wurster 2022, 1799-1817).

Voluntary standards and certification are industry-led initiatives promoting responsible AI practices and public trust. Developed with stakeholders from industry, civil society, and academia, these guidelines ensure that AI technologies adhere to ethical norms and societal expectations. They cover transparency, accountability, fairness, and privacy, guiding responsible AI deployment. Countries such as Sweden and France use collaborative governance to prioritize ethical AI via these standards (Djeffal, Siewert and Wurster 2022, 1799-1817).

Case Study: Estonia's National AI Strategy as a Blueprint for Georgia

AI has transformed communication, work and daily life in the 21st century. Its widespread adoption in both public and private sectors has led many countries to develop strategies for its regulation. According to the OECD (n.d.), over 1,000 AI policy initiatives were launched in the past decade by more than 69 countries, with over 672 initiated by national governments. These initiatives include creating expert groups, drafting national AI strategies, regulatory oversight, grants for R&D, and public awareness campaigns.

Georgia faces challenges in regulating emerging technologies, but aims to align with European standards as part of its Association Agreement (2014) with the EU. Developing a national AI strategy is crucial for Georgia to meet these aspirations.

Estonia's success in AI policy offers valuable lessons for Georgia. Both post-Soviet states have similar populations, with Estonia at 1.37 million (Statistics Estonia 2024) and Georgia at 3.69 million (National Statistics Office of Georgia 2024). Estonia, ranked 9th in the EU for AI readiness (Oxford Insights 2023, 47), presents a notable example of successful governance within the EU, and serves as a noteworthy model for Georgia, which aspires to join the EU. The following chapter aims to explore how Georgia can develop its AI strategy based on Estonia's model.

Estonia's National AI Strategy

In 2018, Estonia formed the AI Taskforce (Republic of Estonia Government Office 2019, 9), chaired by the Ministry of Economic Affairs and Communications and the Government Office. Its primary goals were to develop a legal framework for AI adoption, create a national action plan, and launch an awareness campaign about AI benefits and responsible usage. Building on this foundation, Estonia adopted its National AI Strategy 2019–2021 (Government of the Republic of Estonia 2019) known as the “Kratid” Strategy, with a €10 million investment. This document laid the groundwork for broader AI applications and established tasks and budget estimates. Expanding on the success of the previous strategy, Estonia introduced a new AI strategy for 2022–2023 (Ministry of Economic Affairs and Communications 2021). This plan aimed to strengthen AI use in both public and private sectors, focusing on increasing AI solution adoption, advancing human-centered AI, improving data management, and gaining legislative support. It allocated a budget of €20 million to enhance e-services and the efficiency of the state (Estonian Innovation Agency 2022, 11).

Estonia's AI success (kratid.ee 2024) relies on collaboration, digital literacy and trustworthy AI development. The government, academia, and private sector collaborate closely to foster innovation and ensure a cohesive

approach to AI development. Noteworthy initiatives include enhancing AI literacy among citizens and prioritizing trustworthy AI solutions to protect privacy and human rights. All these pillars ensure transparency, accountability and individual rights protection, and, as a result, foster stakeholder trust and responsible AI innovation (Velsberg 2024).

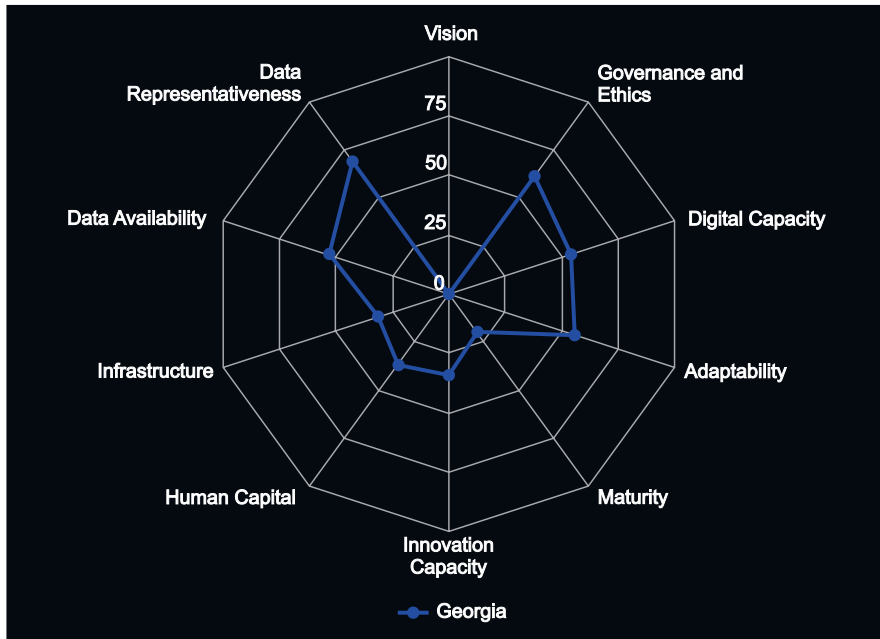
In the public sector, Estonia utilizes AI to enhance service delivery and rationalize processes. Examples include Bürokratt (Kratid, n.d.) chatbots for citizen services, AI-driven tax fraud detection systems, computer vision for environmental monitoring (forests, crops, snow, ice, floods, wildlife, etc.), and transport robots in hospitals. Additionally, Estonia uses AI for personalized learning in schools, remote authentication for online notarial acts, and automatic transcription for court hearings and parliamentary sessions.

Estonia's AI achievements are reflected in remarkable statistics (Kratid. ee 2024): 99% of public services are accessible online, and every citizen possesses a digital ID. Further, Estonia demonstrates a commitment to innovation and adaptability, with over 130 AI projects in the public sector since 2019 and a wealth of open-source AI components. Looking ahead, the AI Task Force is developing the third National AI Strategy for 2024–2026. Estonia plans to invest at least €85 million, appoint a state data architect, incorporate data management education at all levels, and establish top-level AI research centers (ERR 2024).

Georgia's Current Position Regarding AI Development

Before analyzing the AI state of play, it is important to have a look at the global technological/AI positioning of Georgia. According to the 2023 Global Innovation Index (GII), Georgia experienced a significant decline in its overall ranking, dropping from 48 in 2019 to 65 in 2023 (World Intellectual Property Organization 2023, 119). In terms of AI Readiness, Georgia received a score of 41.27 out of 100 and was ranked 99th out of 172 countries according to the AI Readiness Index 2023 (Oxfords Insights 2023). Figure 2 shows the scores received by Georgia in each of the 10 sections of the AI Readiness Index evaluation areas. Georgia scored well in Data Availability and Data Representativeness, but struggled with vision, which indicates a need for a comprehensive, long-term AI strategy.

Figure 2. Government AI Readiness Index 2023: Georgia. Source: Oxford Insights (2023).



Despite progress in public service reforms, Georgia's E-Government Development Index (EGDI) ranking remains moderate, at 60th out of 193 countries (United Nations 2022).

Notable AI applications include chatbots for citizen consultation, adoption of blockchain technology for land titling, and AI-driven technologies across various government agencies. In 2020, Rustavi City Hall and Rustavi Innovation Hub collaborated to develop Ci – Bot, a Chatbot (Rustavi City Hall 2020, 2-3) integrated into Facebook, answering questions regarding Rustavi City Hall services and COVID-19.

The Ministry of Internal Affairs operates (Eristavi and Davituri 2021, 11) several facial recognition programs, including POLYFACE, licensed by Papillon Systems. This program incorporates 3D photo robot creation, video analysis, and deep learning functions. It serves the information-analytical department's tasks, aiding in registered crime investigations and criminal procedure implementation. The headquarters of Papillon Systems

are located in Russia, and its software products are widely used in Russian law enforcement agencies, as they are in Turkey, India, Nigeria, North Korea, and several post-Soviet states (Papillon Systems n.d.). Additionally, the Ministry employs state license plate recognition software from ISS and facial recognition software from the Japanese company NEC. These programs assist in recording administrative violations, maintaining public order, and ensuring personal safety and property protection. Notably, NEC's facial recognition system is integrated with the national network of video cameras, operating in real-time to match biometric data against wanted persons' records. The Prosecutor's Office (2020, 33-44) employs IBM i2 for advanced investigations. This program was created with the support of NATO member states and is actively used in the USA, Canada and EU member states in the process of investigation/prevention of money laundering, cybercrime, fraud, and other complex crimes.

In 2018, the Georgian National Tourism Administration (n.d) utilized AI in its Emotions project to analyze tourist data through the social media posts of more than 7,000,000 travelers who shared their impressions about Georgia. These were then used to create the most emotive and accurate guidebook for the country.

In Georgia's business sector, two types of companies engage in AI activities: "AI companies" focused on offering AI products or services, and entities integrating AI-related technologies into their operations. Local AI firms include Pulsar AI, Maxine AI, Flashbot AI, and Optio AI, which serve various industries, such as healthcare and finance (Parulava 2021, 21-22). While chatbots remain popular among Georgian AI companies, there's a growing interest in utilizing AI across sectors. Financial institutions like TBC Bank and Bank of Georgia lead in adopting AI solutions, with collaborations on virtual assistant projects. Healthcare institutions like Caucasus Medical Center are also exploring AI applications.

The COVID-19 pandemic accelerated the integration of technology in education. Leading universities globally are utilizing AI to enhance organizational management and service quality. The Ministry of Education of Georgia plays a vital role in fostering AI skills among students, with initiatives like Anima Chatbotics enabling secondary school students to access digital assistants like Cyber Galaktioni. However, challenges persist, such as the suitability of Microsoft programs for Georgian language integration in schools (Parulava, 2021). Several Georgian universities offer

AI-related programs, including the Business and Technology University (BTU), Georgian Technical University, Tbilisi State University, and the Free University of Tbilisi. Ilia State University and Kutaisi Technical University (KIU) have also introduced AI courses, with KIU positioned to significantly contribute to AI skill development in the country (Parulava 2021, 24-25).

Challenges and the Need for a National AI Strategy in Georgia

Even though the Georgian government is making progress in utilizing artificial intelligence to improve public services and create an AI-friendly atmosphere, these developments are overshadowed by significant challenges stemming from the absence of a comprehensive national AI strategy.

Table 4. Implications of the Absence of National AI Strategy in Georgia. Source: Author’s Elaboration.

| Challenges | Implications |
|---|---|
| Lack of a national AI strategy | Undermines effectiveness of sector-specific solutions |
| Fragmentation of initiatives | Risk of inefficiency and failure to utilize AI’s full potential for societal and economic benefit |
| Unaddressed critical policy considerations | Heightened risk of inadequate protection of citizen data |
| Absence of clear ethical and regulatory guidelines | Potential misuse of AI technologies |
| Insufficient accountability mechanisms | Insufficient accountability |
| Inability to effectively address cybersecurity threats | Hinders alignment with international best practices |
| Struggle to establish a competitive position in the global AI ecosystem | Potential hindrance to economic growth and innovation prospects |

This absence undermines the effectiveness of sector-specific solutions and leaves critical policy considerations unaddressed. Without a centralized approach, initiatives risk fragmentation, inefficiency, and a failure to use AI’s full potential for societal and economic benefit. Moreover, the absence of a comprehensive AI policy framework raises concerns regarding ethical considerations and regulatory adherence. In the absence of clear

guidelines, there is a heightened risk of inadequate protection of citizen data, potential misuse of AI technologies, and insufficient accountability mechanisms. Furthermore, the nonexistence of a national strategy hinders Georgia's ability to effectively address cybersecurity threats and ensure alignment with international best practices. Without a unified approach, Georgia may struggle to establish itself as a competitive player in the global AI ecosystem, which will potentially hinder its economic growth and innovation prospects.

Tailoring Estonia's Model to Georgia

According to Oxford Insights, a good AI strategy should have a clear and realistic purpose, a clear timeline, measurable goals, funding, and strong coordination (Parulava 2021, 26). Based on these considerations and the experience of Estonia, Georgia can draw significant lessons to guide its own development in the AI domain. Firstly, forming an AI Taskforce, like that of Estonia, would facilitate coordination across governmental departments, businesses, and academia to define priority areas in which artificial intelligence can be used at the first stage. Such priority sectors could be education, healthcare, and justice. Additionally, investing in Georgian universities to provide AI education and skills development programs, as Estonia does, would build a capable workforce proficient in utilizing AI technologies effectively and ethically. Awareness campaigns about AI benefits and responsible usage, similar to Estonia's approach, would educate the public and stakeholders about AI's potential and implications.

The next stage should be devoted to the regulation of the legislative base. Estonia, as an EU member, follows the regulations set by the EU Artificial Intelligence Act (European Union 2021). This act provides clear requirements and obligations for AI developers and users, establishes governance structures at both European and national levels, and addresses risks associated with AI applications. Consequently, Estonia has not initiated separate regulations on the state level. Even though Georgia has signed the Association Agreement, which obliges countries to harmonize their legal systems with the EU, currently there are no legal obligations regarding AI. This gives Georgia room to maneuver, and the possibility to transfer EU AI policy developments only to the degree that is reasonable and suitable for the Georgian context. Developing a legal framework for

AI adoption in Georgia is essential to provide clarity and guidance. The process should include the introduction of artificial intelligence and other technological terms into legislative acts, their definition, and the legislative regulation of their use in priority areas.

Currently, Georgian legislation does not say anything about the use of artificial intelligence systems by public institutions. The term “artificial intelligence” is mentioned only three times in the normative acts published by the Legislative Herald of Georgia, however, none of them are legislative acts (Gabisonia 2021, 29-30). Two of these normative acts are aimed at regulating the development/offering of AI-based services in the private financial sector, and one of them recognizes the status of “artificial intelligence” as a high technology in the field of startup activity. Presently, the Law of Georgia on Personal Data Protection serves as the closest existing legal framework relevant to AI, setting standards for data collection and possession.

Following Estonia’s example, Georgia should begin prioritizing the development of a long-term AI policy, specifically the adoption of a National AI Strategy. While Georgia cannot compete with Estonia in terms of AI funding, it is crucial to begin taking voluntary steps with the available resources to ensure at least the minimum requirements for necessary research are met to prepare the document. Seeking financial support from international partners, such as the EU, and US, or organizations like OECD, which have already financed AI initiatives in Georgia, could be instrumental to that end.

Conclusions and Recommendations

The comparative analysis of Estonia’s artificial intelligence policies and Georgia’s current position clarify that Georgia should prioritize the development of a National AI Strategy. Estonia’s approach, characterized by collaboration across sectors, targeted investments, and legislative alignment with EU standards, has brought significant advancements in AI adoption and governance. Considering the characteristics of Estonia, its size and post-soviet pathway, it emerges as an interesting blueprint case for Georgia. Drawing upon Estonia’s model, Georgia can trace a path toward using AI’s potential while minimizing associated risks. The recommendations derived from the analysis are summarized below.

Recommendation 1: Form an AI Taskforce to oversee and coordinate AI initiatives across various sectors.

Recommendation 2: Develop a long-term AI strategy with clear goals, timelines, and funding.

Recommendation 3: Invest in AI education and skill development to build a proficient workforce.

Recommendation 4: Create a regulatory framework aligned with international standards to ensure responsible AI use and protect citizen data.

Recommendation 5: Seek financial support from international partners to enhance AI initiatives.

The creation of an AI task force to coordinate efforts, funding for AI education and skill development, and the creation of a regulatory framework compliant with international standards are among the most important lessons from Estonia's experience. Notably, Georgia's prospective membership in the EU offers a chance to align its AI laws with EU standards while adapting them to local needs.

In order to ensure consistency with Georgia's larger socio-economic interests, the development of a long-term AI strategy must be supported by specific targets, measurable goals, and a realistic timeline. Although financial constraints could present difficulties, taking advantage of existing resources can facilitate the initial stages of strategy formulation.

Georgia faces the risk of falling behind in the global AI environment without a well-coordinated framework for AI policies, which will hinder the state's capacity to seize new possibilities and tackle changing obstacles. For Georgia to promote innovation, improve public service delivery, and experience sustainable economic growth, coordinated efforts toward the creation and execution of a comprehensive AI strategy are therefore essential.

To advance Georgia's AI development, more research, dialogue, and action are necessary. Ongoing research is required to analyze the potential socio-economic implications of AI, identify priority areas for its application, and assess emerging trends. To ensure a coordinated strategy, dialogue is vital among government agencies, academia, industry stakeholders, and civil society. Action-oriented initiatives should include starting AI research institutes, growing AI training and education initiatives, and creating pilot projects that show the viability of implementing AI in priority areas. Additionally, efforts to strengthen regulatory frameworks, enhance data governance, and promote ethical AI practices are essential to build public trust, protect individual rights, and reduce potential risks associated with AI.

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