Chapter 12
Intentions and Premises: An Analysis of Sustainability in U.S. Security Institutions' AI Strategies

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ABSTRACT

This chapter evaluates the sustainability premises of the strategy documents on AI for U.S. security institutions regarding intent, and foundational assumptions. While doing so, the paper covers a discussion of the position of AI in public administration and how sustainability is captured within these strategies in the security sector. These results indicate that U.S. security institutions work toward enhancing effectiveness in operations using AI, but also address the long-term, critical challenges on energy efficiency, social equity, and economic responsibility. The concept of sustainability is based on assumptions, such as the fact that AI should serve today's needs while protecting those of future generations. This can also be interpreted to mean a far stronger integration of secure-by-design principles and a much wider focus on minimizing negative societal impacts of AI. It therefore helps provide an insight into how AI governance evolves through a complex adaptive system in framing strategic foresight of sustainability in developing balanced and ethical AI applications.

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INTRODUCTION

The rapid development of AI technologies in recent years has significantly transformed public administration and security. The U.S. security institutions primarily, have determined the operational effectiveness of these technologies and the need to evaluate their long-term societal, environmental, and economic effects while designing their AI strategies. In this context, sustainability has become a theme that has gained significance in AI strategies.

The sustainability premises within the AI strategy documents of the U.S. security institutions have a critical role in the design and adoption of AI technologies. These premises aim to reach short-term strategic objectives and long-term sustainability goals. In this context, sustainability aims to sustain AI's impacts on the security sector to be balanced and persistent by assuming the environmental, societal, and economic dimensions. How AI could be sustainable in the long term has become a vital subject regarding social benefits and the protection of global stability.

The integration of AI technologies into public administration processes is a significant development that enhances the operational capacities of states and gives them an opportunity to present more effective services to their people. These technologies provide considerable benefits to public administration in processing data rapidly and effectively, solving complex problems, and automating processes. However, the use of technology in a more sustainable way has become a crucial point, in addition to AI's advantages above.

Sustainability is an approach that considers the long-term social, environmental, and economic impacts of using AI, especially in public administration. Public administration has broad responsibilities, such as protecting the well-being of societies, ensuring financial stability, and supporting the sustainable use of natural resources. In this context, AI applications should meet current needs and consider future generations' demands. The sustainable application of AI ensures that these technologies contribute to long-term social benefits by supporting social justice, environmental balance, and economic prosperity.

When evaluating the significance of sustainability in the context of public administration, it is primarily required to approach the environmental effects of these technologies. Since AI systems require considerable amounts of data for processing, they consume extreme energy. Thus, ecological sustainability brings the subjects of energy efficiency and reduction of carbon footprint. If these technologies are not appropriately governed, there is a risk of extinction of energy resources and climate change. Accordingly, strategies of ecological sustainability create a necessity for AI to be governed with solutions that increase energy efficiency.