

Sejong Policy Brief



THE SEJONG INSTITUTE

No. 2020-01 (February 17, 2020)

Executive Summary

**Can AI be a Solution for the Current Issues
related to Korea's National Unification?
: Issues raised by AI Politics and AI
Weapons and Instructions for AI Utilization**



Seonkyu Koh

(tohokugosg@gmail.com)

*Visiting Research Fellow,
Institute for Information,
Coordination and Innovation,
Waseda University*

*This article is written based on the author's personal opinions
and does not reflect the views of the Sejong Institute.*

Executive Summary

- Increased collaboration between humans and machines following the emergence of artificial intelligence (AI)

- A new partnership between human and machine (AI) is rising as a mean to solve pending issues that human society currently faces as AI can formulate feasible policy alternatives based on extensive data.
- A paradigm for war or conflict resolution is also changing as countries develop AI weapons.

- The era of AI politics and changes in political process

- In 2018, an AI candidate ran for a mayoral election in Tama-si (多摩市), Japan, and it explained that it decided to run for office since it has no self-interest or link to any particular organization or group unlike human politicians, and thus it can make neutral policy decisions.
- Furthermore, AI for policy proposal is being utilized within the process of policy making as a collaborative action between human and AI, and sustainable policy research based on AI is already being carried out in various forms both at the central and local government level.
- A project under the title of “AI’s Plan for Japan’s Sustainable Society in 2050” was launched to solve problems that the Japanese society faces. In this project, experts drew causal relation models from 150 social factors, including budget deficit, low birth rate, and environmental problems; AI calculated about 20,000 scenarios that the Japanese society can choose; finally, experts ana-

lyzed the results to draw a final conclusion.

- Projects of using AI to overcome issues faced by local communities are also in progress. For instance, in case of Nagano Prefecture, AI suggested the most appropriate plan for realizing a sustainable local society in 2040 as “readjustment of regional transportation network and the investment in local tourism sector.”
 - AI predicted that if Nagano Prefecture actively abides by the policies proposed above, a sustainable society with a minimal decrease in population will be formed, and citizens will enjoy higher income and healthier lives in 2040.
- The emergence of AI weapons and paradigm shift to war 3.0
- The recent emergence of AI weapons is considered as the third revolution in the history of weaponry following gunpowder and nuclear weapons. As AI technology developed, AI weapons started to take shape of Killer Robot or Lethal Autonomous Weapon System (LAWS), and the international community initiated debates about the issue of governance for these AI weapons
 - In August 2019, a worldwide consensus on LAWS was reached, and countries agreed on a principle of putting AI weapons under “meaningful human control” and “meaningful human judgement.”
 - Despite the overall consensus to put LAWS under human control, the issue of human dignity and ethics still follows LAWS as such issues directly relates to the essence of system. Nevertheless, ethical responses inevitably bring many limitations.
 - In reality, major weapons and soldiers already own a portable android kit, which connects to all networks for information exchange. Moreover, the usage of unmanned aircraft (drone) in combat areas increased strategic advantages

by effectively identifying and sharing information at the battlefield.

- If a commander in charge refers to AI machines for necessary information before making decisions, it guarantees a human to make a final judgement and order in the Kill Chain Process. Such circumstance could be a way to overcome “human exclusion,” which is one of concerns for using LAWS.

□ Future tasks and issues of AI politics and possible solutions

- The coexistence of human and machine (AI) and the usage of AI have developed in diverse forms. By using similar methodology, it may be possible for South Korea to make policy suggestions on various issues related to social and political problems, security concerns, and national unification.
- Using AI for analyses allows experts to extract variables and find correlations based on mass data, which is beyond human capability. In addition, AI shows significant accuracy and efficiency in analyzing budget-related issues. So, it can be used to enhance government’s budget efficiency or to draw costs of national unification.
- As an AI weapon developing country, South Korea should establish a regulation line strategically advantageous to the development. Moreover, South Korea needs to put effort on establishing logics for developing AI weapons to maintain its defense capability and the level of national security with the population decrease and constantly persuade the international community for utilizing AI weaponry. ❖

※ Translator’s note: This is a summarized unofficial translation of the original paper which was written in Korean. All references should be made to the original paper.