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\* この記事は、調査及び立法考査局内において、国政審議に係る有用性、記述の中立性、客観性及び正確性、論旨の明晰（めいせき）性等の観点からの審査を経たものです。

\* 本文中の意見にわたる部分は、筆者の個人的見解です。

## Summary

### Chapter 1 **Virtual Proceedings in the House of Commons of Canada: From Pandemic Responses to a “New Normal”**

KOBAYASHI Kimio

(Senior Specialist, Chief of the Politics and Parliamentary Affairs Research Service,  
Research and Legislative Reference Bureau, National Diet Library)

Responding to the COVID-19 pandemic step by step, in the end the House of Commons of Canada adopted hybrid proceedings and voting, where Members could participate in proceedings and vote either in person or virtually. The House made these measures permanent after the pandemic ended.

The Zoom video-conferencing system is used for public virtual proceedings. To vote virtually from outside the Chamber, Members use an electronic voting application installed on a mobile device which was provided to them by the House.

For the stable operation of the virtual proceedings, (1) ensuring access to highspeed internet for Members from rural and remote areas, and (2) maintaining a sufficient pool of simultaneous interpreters for English and French are crucial elements.

Virtual proceedings could contribute to increased participation of women and minorities in politics but could also weaken government oversight. Opinions for and against the permanent hybrid proceedings are divided.

### Chapter 2 **Digital Influence Operations: Recent Trends and Responses**

KYUKO Satomi

(Researcher, Foreign Affairs and National Defense Division,  
Research and Legislative Reference Bureau, National Diet Library)

Against the backdrop of the development of the Internet and digital technologies, there have been a series of cases of digital influence operations by international terrorist organizations and by states such as Russia and China in recent years. Social media has become widely used these days, and the characteristics and mechanisms of social media, including the bidirectional nature of information transmission, have complicated the information environment and created a favorable environment for the implementation of influence operations. Digital influence operations include the dissemination and diffusion of disinformation centered on false information and narratives based on opinions and value judgments. To date, responses in democracies have included blocking information, verifying the authenticity of information, platform companies' measures, strategic transmission of information, punishing perpetrators, and improving the information literacy of the public. Digital influence operations are expected to continue to be implemented as they increase their sophistication. It will be necessary for democracies to address the responses in a transparent manner while protecting democratic values such as freedom of expression.

## Chapter 3 **The Current State of the Internet and the Discussion of Its Fragmentation**

OCHIAI Sho

(Researcher, Land Development and Communications Division,  
Research and Legislative Reference Bureau, National Diet Library)

The internet has grown into a single network of interconnected individual networks that spans the globe, and many people around the world are taking advantage of it. On the other hand, the “splinternet,” fragmentation that seems to reverse the development of the internet, can be seen in various areas.

The government of Japan, for example, has announced a policy against the splinternet in cooperation with many countries. However, there are various views on how to deal with the splinternet, including the viewpoint of whether absolute resistance against it is really the right thing to do. With the emergence of the splinternet, the nature of the internet, which has been regarded as a global and single entity, is being questioned once again.

## Chapter 4 **Artificial Intelligence in Local Government: Efforts to Improve Operational Efficiency in Japan and the UK**

OCHI Midori

(Researcher, Public Administration and Judicial Affairs Division,  
Research and Legislative Reference Bureau, National Diet Library)

Japanese local authorities are now using artificial intelligence (AI) to help resolve constraints on management resources of local governments brought about by rapid depopulation due to the declining birthrate and aging. In the present situation, they can use AI technology only as a productivity tool or a means of providing information, but there are now some advanced examples of AI usage in the field of improving operational efficiency. UK local authorities have also been faced with demographic changes such as aging and immigrant populations, as well as fiscal difficulties caused by fiscal austerity policies. They have been exploring the use of AI in their operations since before Japan.

Advanced examples in both Japan and the UK tell us there are three problems for local authorities in Japan which intend to introduce AI more actively: (1) Data quality/quantity of machine learning; (2) Monitoring system for risks of AI use; (3) Possibility of uncertainty in the status of AI usage by local governments because of decrease in media coverage.

## Chapter 5 R&D Policy for Information and Communication Technology in the U.S.: Promotion of Artificial Intelligence R&D

OKAMURA Koichiro

(Professor, School of Business Administration, Kwansei Gakuin University/  
Senior Consultant, Education, Culture, Science and Technology Research Service,  
Research and Legislative Reference Bureau, National Diet Library)

In the U.S., the Networking and Information Technology Research and Development Program has been in charge of ICT R&D policies and programs over the past 30 years. Policymakers and practitioners have recognized the program as a practical framework for coordinating federal government agencies' R&D policies and programs.

In recent years, there has been a significant increase in interest in artificial intelligence (AI). Still, it was not until the Obama administration that AI became a priority at the federal government level in the United States. The administration laid the foundation for the federal government's efforts in AI technology, which had placed a high priority on big data from its inception. Although the initiatives for AI technology stalled for a while under the Trump administration, the efforts resumed in the middle of his term. The Biden administration has begun to take a more active role, and the implementation is progressively advancing.

## Chapter 6 **Technical Measures and Legal Regulations against Cyberbullying: Focusing on Legal and Non-legal Regulations in the European Union**

KAWAI Miho

(Director, Education, Culture, Science and Technology Division,  
Research and Legislative Reference Bureau, National Diet Library)

Cyberbullying among children has become a problem both domestically and internationally, and many countermeasures and preventive measures have been studied and put into practice in the fields of pedagogy, psychology and others. The Organization for Economic Cooperation and Development (OECD), the European Union (EU) and other organizations have made it a high priority policy issue and have conducted many studies, made recommendations, made resolutions, and established grants.

Numerous research and development efforts have also progressed on technological solutions, particularly in the detection of cyberbullying on social media platforms, where deep learning models are said to outperform traditional machine learning models. However, detecting cyberbullying remains challenging because it is context-dependent.

Measures to deal with cyberbullying, if limited to the technical perspective, have included removal of cyberbullying after prior detection and subsequent reporting, provision of information by safety centers, and awareness and prevention education, within the scope of self-regulation and co-regulation by social media companies and others, but recently, in Europe, there have been moves to strengthen regulations for the protection of children. In Italy, a comprehensive anti-cyberbullying policy has been legislated.

## Chapter 7 **Current Status of Online Medical Care and Efforts toward Further Utilization**

TAKUMI Mai

(Researcher, Social Welfare and Labor Division  
Research and Legislative Reference Bureau, National Diet Library)

With the development of information and communication technology and changes in local medical care delivery systems and medical needs, the demand for remote medical care has been increasing in recent years. In particular, regulations regarding online medical care have been significantly eased due to the spread of COVID-19. In addition, in recent years, new technologies and systems related to online medical care, such as online drug administration guidance, electronic prescriptions, and digital therapeutics, have been developed, and these can be utilized for online medical care. However, while the environment for conducting online medical care is being developed, online medical care is still not necessarily widespread. The Ministry of Health, Labor and Welfare's social security council medical section has considered (1) a basic policy for promotion of remote medical care, including online medical care, (2) Online medical care in familiar locations, (3) Online medical care using cars in order to further utilize remote medical care.

## Chapter 8 **Inheritance of Digital Data: In Response to the Diversification of Services via the Internet and Expansion of Use of These Services**

MORITA Noriko

(Senior Specialist, Chief of Education, Culture, Science and Technology Research Service,  
Research and Legislative Reference Bureau, National Diet Library)

The spread of computers and smartphones is remarkable, and the Internet is becoming popular even among the elderly. After a person dies, a variety of digital data is left behind, from creations on digital devices, emails, and SNS posts, to crypto assets and NFTs. However, for the bereaved family members, the handling of digital data is confusing and complicated; digital data is not subject to ownership and must be verified for transferability by checking the contract (terms of use) for each service, and new forms of value such as crypto assets and NFTs must be dealt with. The problem may be that whether a request by the bereaved to obtain the deceased's SNS data will be allowed depends on the interpretation of the contract. A uniform state law in the United States specifies the order of priority for instructions on disclosure and non-disclosure of data and the conditions of disclosure. However, it might be difficult to envision something similar in Japan, where the inheritance system is different, and there is a view that the most promising approach in Japan is to ensure the rationality of terms of use by creating some model agreements based on discussions.

## Chapter 9 Ethical, Legal, and Social Issues of Generative AI

KISHIMOTO Atsuo

(Professor, Institute for Datability Science, Osaka University/  
Director, Research Center on Ethical, Legal and Social Issues, Osaka University/  
Senior Consultant, Education, Culture, Science and Technology Research Service,  
Research and Legislative Reference Bureau, National Diet Library)

In the middle of 2022, generative AI was released and widely used around the world, and since then ethical, legal, and social issues have emerged that are different from those of conventional types of AI which analyze, infer, and recognize things. This is related to the fact that humans have changed from being objects to be analyzed by AI to subjects who use AI. In addition, with some major tech companies leading the development of generative AI, we need a different approach to risk governance mechanisms than in the past. In this chapter, we look back at conventional AI, and next overview the various ELSIs of generative AI that have been pointed out in the process of developing and using generative AI. Then, we will focus on the voluntary efforts of business operators and summarize the trend of laws and regulations in the EU, the UK, the US, and Japan.