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Section 6 **Promotion of ICT usage**

1. Summary

(1) Initiatives so far

Since the establishment of the Information and Communication Technology Strategy Headquarters in 2000 and the enactment of the Basic Act on the Formation of an Advanced Information and Telecommunications Network Society (Act No. 144 of 2000)¹, Japan has been promoting the utilization of ICT through various national strategies such as the e-Japan Strategy and the Comprehensive Strategy for the Vision for a Digital Garden City Nation. Based on these policies, the MIC has been pro-

(2) Future challenges and directions

Japan faces a challenging economic environment, including a declining workforce due to an aging population and a projected shrinkage of the domestic market. Additionally, there are mounting challenges such as coping with severe and frequent disasters, and addressing the aging public infrastructure that has been in place for over 50 years.

Furthermore, as digitalization progresses in society, including the widespread adoption of smartphones and the advancement of network sophistication, the role of information and communication in the lives of citizens and economic activities is increasing. Digitalization has the potential to significantly enhance the productivity and convenience of local communities, improve the quality of industries and livelihoods, and enhance the attractiveness of regions. Moreover, services provided by platforms such as social media and searching engines contribute to the improvement of daily convenience.

On the other hand, issues such as defamation, slander, and dis-/mis-information have become apparent in the information circulated on the Internet. Additionally, the emergence of new information and communication technologies such as generative AI and the metaverse is moting the utilization of ICT in various fields, including the digitalization of local communities, new information and communication technologies, and the revitalization of society through data circulation, in order to address social and economic issues such as the declining workforce due to an aging population, the increase in medical and nursing care costs, and the exacerbation of natural disasters.

significantly transforming the digital space.

The government has raised the banner of the "Comprehensive Strategy for the Vision for a Digital Garden City Nation," and is actively promoting DX in local areas through the rapid development of digital infrastructure by both the public and private sectors.

Considering these challenges and the potential of digitalization, it is important to promote the implementation of digital solutions as a key to solving social issues in local communities, contributing to the revitalization of regional societies and economies. Furthermore, it is crucial to comprehensively address new challenges associated with the advancement of the digital space, such as the circulation of dis-/mis-information, the proliferation of generative AI, and the metaverse.

Moreover, in order to achieve a society where everyone can enjoy the benefits of various digital services that utilize data, and to ensure that users can utilize information in a safe and secure environment, it is important to promote the realization of a society where everyone can enjoy the benefits of various digital services that utilize data, and to ensure that users can utilize information in a safe and secure environment.

2. Promotion of DX to contribute to stimulate local areas and economy

(1) Examination for the realization of vibrant local communities

The MIC has been implementing initiatives that contribute to the "Vision for a Digital Garden City Nation" and "Digital Administrative and Fiscal Reforms." However, there have been criticisms that these various initiatives have not necessarily led to the resolution of local issues.

Against this backdrop, the MIC has been holding the "Study Group on the Ideal State of Information and Communication Infrastructure and Utilization for the Realization of Vibrant Local Communities"² since December 2023. The purpose of this conference is to examine the policy direction necessary to improve the quality of life for local residents and realize vibrant and diverse local communities through the necessary information and communication infrastructure and its utilization. The study group discusses issues such as the direction of improving the usage environment based on the actual usage of communication and broadcasting services, including end-to-end services in local areas, creating an environment where digital talents nurtured in the region can thrive, promoting industries using the digital infrastructure established in the region, addressing social issues such as labor shortages using digital technology, and building and strengthening the collaboration system among stakeholders for promoting regional DX.

¹ This act was abolished by the Basic Act on the Formulation of a Digital Society (Act No.35 of 2021).

² Conference on the Ideal State of Information and Communication Infrastructure and Utilization for the Realization of Vibrant Local Communities https://www.soumu.go.jp/main_sosiki/kenkyu/chiikikon/index.html

A Solving issues using local digital infrastructure

(A) Promotion of local 5G

Local 5G, institutionalized in 2019, is a 5G system that can be flexibly constructed on a spot basis within buildings or premises by various entities such as local companies and municipalities, according to the specific needs of the region or industry, unlike the nationwide 5G service provided by mobile phone operators.

To promote the spread of Local 5G, the MIC has been conducting technical studies on radio wave propagation in various usage environments assuming various realworld scenarios from FY2020 to FY2022. Additionally, the MIC has been implementing the "Development and Demonstration for the Realization of Problem-Solving Local 5G," which aims to create solutions using Local

(B) Implementation of advanced digital technologies using local digital infrastructure

To realize the "Vision for a Digital Garden City Nation," it is important to promote the establishment of local digital infrastructure and the practical application of advanced solutions using this digital infrastructure in an integrated manner, so that residents can experience the convenience of digital technologies according to local needs. Therefore, the MIC has started the "Regional Digital Infrastructure Utilization Promotion Project" from FY2023 to comprehensively support local governments' efforts to solve regional issues using digital technologies. This project supports (1) the formulation of digital technology introduction plans, (2) the practical

(C) Promotion of smart cities

Since FY2017, the MIC has been promoting smart cities that solve regional issues and create new value leading to regional revitalization through the use of digital technologies and data. The MIC, in collaboration with relevant ministries and agencies such as the Cabinet Office, has been implementing the "Smart City Promotion Project for Solving Regional Issues," which supports local governments etc.' efforts to introduce City OS and develop service assets. In FY2023, the MIC supported the projects of eight organizations.

(D) Social implementation of information banks

From the perspective of promoting the appropriate utilization of personal data, including personal information, the MIC and the METI established a study group on the certification scheme for information trust functions. In June 2018, they compiled the "Guidelines for Certification of Information Trust Functions ver1.0," which outlines a voluntary certification system for information banks by private organizations. These guidelines focus on data utilization starting from individual users and consist of certification criteria, items to be included in the model contract, and the certification scheme. Based on these guidelines, the General Incorporated Association Information Technology Federation of Japan, a 5G.

Furthermore, to promote the introduction of safe and reliable 5G and solve various social issues faced by regions using 5G, as well as to strengthen the international competitiveness of Japan's economy, a tax system to promote the introduction of 5G was established in FY2020. In the FY2022 tax reform, revisions were made to promote the establishment of base stations in rural areas to realize the "Vision for a Digital Garden City Nation." The tax incentives, including corporate tax and income tax credits or special depreciation and special measures for fixed asset tax, have been extended until the end of FY2024.

application of advanced solutions (demonstration projects), and (3) the establishment of local digital infrastructure (subsidy projects), in order to comprehensively support local governments' efforts to solve regional issues using digital technologies. Furthermore, from FY2024, the MIC will also work on building DX promotion systems through the collaboration of municipalities and verifying the reliability of communications necessary for safe autonomous driving to contribute to solving social issues aimed at by digital administrative and fiscal reforms.

In FY2023, the MIC, together with relevant ministries and agencies, revised and published the second editions of the "Smart City Reference Architecture (White Paper) and Smart City Guidebook."³ Additionally, aiming for further development and implementation of smart cities, the MIC formulated the "Smart City Policy Roadmap" looking beyond 2030. In FY2024, the MIC revised the "Smart City Security Guidelines" based on these trends.

certification body, decided on the first "Information Bank" certification in June 2018, and as of March 2024, two companies have been certified as "Information Banks."

The MIC and the METI have been continuously reviewing the guidelines and considering the utilization of information banks. In July 2023, they published the "Guidelines for Certification of Information Trust Functions Ver3.0," which stipulates the requirements for information banks to handle sensitive personal information in the health and medical fields. In FY2024, they are verifying the issues of the certification guidelines by demonstrating use cases where information banks con-

³ Publication of the revised version of Smart City Reference Architecture (White Paper) and Smart City Guidebook

https://www8.cao.go.jp/cstp/stmain/20230810smartcity.html

Videos of case study / interview articles https://www.mlit.go.jp/scpf/efforts/index.html Case studies of smart city service https://www.soumu.go.jp/main_content/00080885.pdf

tribute to solving regional issues by safely and securely distributing sensitive personal information in the health and medical fields through data linkage in smart cities.

B Securing and developing human resources to support the DX of local communities

(A) Support project of external human resource recruitment

In September 2022, the MIC formulated the "Standards of External Human Resource Skill for Promoting Municipal DX" to serve as a reference for municipalities when securing external human resources. These standards categorize the desirable skills and experiences that external personnel should possess. Based on these standards, the MIC publicly recruited individuals from

(B) Dispatch system of regional informatization advisor

Since FY2007, the MIC has been dispatching experts with knowledge and know-how in ICT (referred to as "Regional Informatization Advisors") to municipalities and other entities upon request. These advisors provide advice, recommendations, and information to promote the use of ICT in solving regional issues, thereby contributing to the creation of vibrant and attractive communities and fostering human resources who can play a

(2) Discovery and development of ICT startups

In Japan, 2022 was designated as the inaugural year for startup creation, with the goal of increasing investment in startups tenfold over five years. This goal was set forth in the "Startup Development Five-year Plan" (decided at the New Capitalism Realization Conference in November 2022), aiming to create an ecosystem that fosters and nurtures startups.

(3) Promotion of telework

A Overview of telework

Telework is a flexible working style that utilizes ICT to make effective use of time and location. It enables diverse working styles that fit the life stages and lifestyles of individuals, including those raising children, seniors, and people with disabilities. Additionally, it is effective in ensuring business continuity during disasters or infectious disease outbreaks. Telework also allows individuals to maintain their income while working in their preferred regions, potentially creating a flow of people from urban to rural areas, thereby offering various benefits to society as a whole. Since 2020, with the spread of COV-ID-19, telework has been widely adopted, especially in urban areas, as a means to reduce commuting. However, the image of telework as a measure to prevent infection has become prevalent. In May 2023, COVID-19 was reclassified as a Category 5 infectious disease, and a survey conducted by Persol Research Institute in July 2023 showed that the telework implementation rate among employees was at its lowest since April 2020⁴, indicating a trend towards returning to the office.

In response to this situation, the MIC established the "Task Force on the Future of Telework in the Post-COV-ID Era" in April 2021 to further expand and firmly estabthe private sector with certain skills and experiences, evaluated them through experts, and provided training on municipal operations and information systems. Information on those who completed the training was compiled and provided to municipalities as an "List of External Human Resource" starting in June 2023.

central role in the region.

In FY2023, 196 private sector experts with knowledge and know-how in regional informatization through research activities at universities, business activities in the region, NPO activities, etc., were appointed as "Regional Informatization Advisors," and 363 dispatches were conducted.

The MIC and the NICT host the "Entrepreneur Koshien" and "Entrepreneur Expo" to award and support excellent business plans from students aiming to start businesses and from startup companies, with the objective of solving regional issues and revitalizing the economy through the creation of ICT startups originating from local areas.

lish telework. The task force, which gathered expert opinions on telework style that Japan should aim for in the future, issued a recommendation in August 2021 stating that "Japanese-style Telework," which enhances communication through the use of ICT tools while maintaining the strengths of Japan's employment practices and work styles, should be the future direction for Japan.

To foster momentum for telework, the Telework Month Executive Committee (comprising the Cabinet Bureau of Personnel Affairs in the Cabinet Secretariat, the Office for Promotion of Regional Revitalization in the Cabinet Office, the Digital Agency, the MIC, the Ministry of Health, Labour and Welfare, the METI, the Ministry of Land, Infrastructure, Transport and Tourism, the Japan Tourism Agency, the General Incorporated Association Japan Telework Association, and the Japan Telework Society) designates November each year as "Telework Month," a period for concentrated telework initiatives. During this month, they conduct surveys on the effects of telework (such as contributions to work style reform and operational efficiency) and hold events and seminars organized by related ministries and agencies. Additionally, since 2015, the MIC has been recog-

⁴ "8th Telework Survey/Mask Survey at Work" (Persol Research Institute) https://rc.persol-group.co.jp/thinktank/assets/telework-survey8.pdf

nizing companies with significant telework achievements to incentivize telework adoption and provide reference examples for other companies considering telework.

In 2023, considering the widespread adoption of telework, the MIC selected and announced companies and organizations that not only implemented telework systems and achieved significant utilization but also demon-

B Support for the spread of telework

To support the adoption of telework among SMEs and in regional areas, where implementation rates remain low, the MIC has established regional consultation desks in collaboration with local chambers of commerce and local governments nationwide. These desks provide consultation services and other support. Additionally, the MIC offers free individual consulting by experts (telework managers) to companies considering the introduction or improvement of telework, aiming to promote the effective use of telework. Since FY2022, these strated management effectiveness through telework, addressed communication challenges during telework, and contributed to solving regional issues such as revitalizing local industries and promoting regional informatization. These entities were recognized as "Telework Top Runners 2023," with the most outstanding initiatives receiving the "Minister of Internal Affairs and Communications Award."

support services have been integrated with the Ministry of Health, Labour and Welfare's labor-related telework consultation services and jointly implemented as the "Telework One-Stop Support Project."

Furthermore, to address the common concern of information security in telework, the MIC has developed the "Telework Security Guidelines" and the "Telework Security Handbook for SMEs (Checklist)" to serve as references for companies implementing telework.

3. Responses to address the new issues along with the advancement of digital space

(1) Promoting the spread of AI and addressing risks

In recent times, the development and proliferation of AI technology have been advancing at a rapid pace, to the extent that there is hardly a day without news about AI. The "AI Networking," where AI systems connect and collaborate with other AI systems via the internet, is expected to bring significant benefits to individuals, communities, nations, and the international society by addressing various challenges. Since the launch of OpenAI's ChatGPT in November 2022, global attention towards the potential and risks of AI has significantly increased.

In this context, during the G7 Digital and Technology Ministers' Meeting held in Takasaki, Gunma, Japan, in April 2023, six themes, including "Promoting Responsible AI and AI Governance," were discussed under Japan's leadership as the chair country. The meeting resulted in the adoption of the G7 Digital and Technology Ministers' Declaration. Furthermore, following the outcomes of the G7 Hiroshima Summit in May of the same year, the "Hiroshima AI Process" was initiated to discuss generative AI. In December, the "Comprehensive Policy Framework for the Hiroshima AI Process" was compiled and approved by the G7 leaders. The Hiroshima AI Process will continue to advance with the cooperation of G7 countries, the OECD, the GPAI, and the United Nations, among other multilateral platforms, under the "Work Plan to Advance the Hiroshima AI Process."⁵

Domestically, in response to the rapid changes in AI technology and international discussions, the government established the AI Strategic Council as a command center to conduct intensive discussions with experts possessing a wide range of knowledge on various issues. Based on the "Tentative Summary of AI Issues" (May 2023) compiled by the AI Strategic Council, the MIC and the METI have been working on integrating and updating existing guidelines678 to address concerns and risks related to AI. They have held the "AI Network Society Promotion Council" and the "AI Business Operator Guidelines Review Committee" to develop unified and comprehensible guidelines for AI business operators. The "AI Guidelines for Business" Version 1.0 was formulated and published in April 2024. These guidelines will be updated as a Living Document, reflecting ongoing trends, issues, and international discussions surrounding AI.

(2) Organizing issues related to the utilization of the metaverse and other technologies

Recognizing the need to ensure a safe and secure cyberspace, the MIC has been working to identify and organize new issues related to cyberspace, anticipating the future widespread adoption of the metaverse. From August 2022 to July 2023, the "Study Group on the Utilization of Metaverse toward the Web3 Era⁹" was held.

⁶ AI R&D Guidelines for International Discussions https://www.soumu.go.jp/main_content/000499625.pdf

⁵ Regarding the discussion in G7, also refer to Section 8 "Promotion of international strategy" in Chapter 2, Part2.

⁷ AI Utilization Guidelines https://www.soumu.go.jp/main_content/000809595.pdf

⁸ Governance Guidelines for Implementation of AI Principles ver. 1.1 https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20220128_1.pdf

⁹ Holding "Study Group on the Utilization of Metaverse toward the Web3 Era" (Press release) https://www.soumu.go.jp/menu_news/s-news/01iicp01_02000109.html

The study group focused on improving user convenience, ensuring the appropriate and smooth provision of services, and fostering innovation in the utilization of virtual spaces like the metaverse. It addressed issues related to information and communication administration from the perspectives of user understanding and digital infrastructure, considering various use cases. In July 2023, the study group compiled a report¹⁰.

The report outlined six key points and issues related to the development of the metaverse, including challenges associated with avatars, and proposed directions for resolving these issues, such as forming an international common understanding of the metaverse's principles. Based on the report, a new "Study Group on Realizing Safe and Secure Metaverse¹¹" was launched in October 2023 to examine principles based on the democratic values of the metaverse, follow up on technological trends, and contribute to international discussions on the metaverse toward the realization of safe and secure metaverse for users. The group presented the first draft of the metaverse principles in March 2024 and plans to publish a report around the summer of the same year.

(3) Comprehensive measures to address dis-/mis-information on the Internet

A Response to the 2024 Noto Peninsula Earthquake

Following the Noto Peninsula Earthquake in January 2024, concerns were raised about the circulation of dis-/ mis-information that could hinder swift life-saving, rescue, and smooth recovery and reconstruction efforts.

The MIC issued warnings about dis-/mis-information on the Internet through social media on the day after the disaster, January 2, and requested major social media platform operators to take appropriate measures in accordance with their terms of use. Subsequently, various layered public relations efforts have been implemented, primarily targeting the affected areas, to raise aware-

B Examination of the healthiness of information circulation in digital spaces

As various services utilizing digital spaces become widespread in society and new technologies such as generative AI continue to advance, new challenges such as the circulation and dissemination of dis-/mis-information have become apparent, with their impact on society growing. Taking into account international trends, a new "Study Group on the Healthiness of Information Circulation in Digital Spaces¹³" was launched in November 2023 to examine comprehensive measures, including institutional aspects, to address the circulation and dissemination of dis-/mis-information. The study group has been discussing the basic principles for ensuring the healthiness of information circulation in digital spaces, the roles and responsibilities expected of various stakeholders, and specific measures. In May 2024, a "Multi-Stake-

C Promotion of international cooperation

In the ministerial declaration of the G7 Digital and Technology Ministers' Meeting held in Gunma Takasaki in April 2023, it was announced that the "Existing Practices against Disinformation (EPaD)" by stakeholders, including private companies and civil society, would be collected and edited, and then announced at the IGF Kyoto 2023. In response to this declaration, the Japanese government, as the G7 chair, compiled EPaD at the MIC ness about dis-/mis-information.

The "Package for Supporting the Lives and Livelihoods of Disaster Victims¹²" published on January 25, 2024 also incorporates measures to address dis-/mis-information circulating on the Internet. It includes ongoing follow-ups on the response status of platform operators in relation to the requests and the development and verification of technologies to identify deepfake videos circulating on the Internet, utilizing the supplementary budget for FY2023.

holder Effort Collection for Addressing Dis-/mis-information on the Internet" was compiled and published to make it more accessible for a wide range of stakeholders from the private sector, academia, government, and civil society to refer to, with the aim of promoting collaboration and cooperation domestically and internationally. Concrete measures, including ensuring the transparency and accountability of platform operators' efforts, promoting fact-checking, raising awareness, improving literacy, nurturing talent, conducting research and development of technology, addressing challenges related to digital advertising, and strengthening international cooperation, are expected to be compiled and published around the summer of 2024.

and publicly announced it at the session "Sharing Existing Practices against Disinformation (EPaD)" held on Day 0 of IGF Kyoto 2023 (hosted by the MIC). The session discussed the importance of regional and crossborder collaboration and cooperation among a wide range of stakeholders, including platform operators, private companies, media, journalists, fact-checking organizations, legal professionals, academia, individuals, civil

¹⁰ https://www.soumu.go.jp/main_content/000892205.pdf

¹¹ Holding "Study Group on Realizing Safe and Secure Metaverse" (Press release)

https://www.soumu.go.jp/menu_news/s-news/01iicp01_02000121.html

¹² "Package for Supporting the Lives and Livelihoods of Disaster Victims" (The 2024 Noto Peninsula Earthquake Emergency Disaster Countermeasures Headquarters decision) https://www.bousai.go.jp/pdf/240125_shien.pdf

¹³ Holding "Study Group on the Healthiness of Information Circulation in Digital Spaces" (Press release) https://www.soumu.go.jp/menu_ news/s-news/01ryutsu02_02000374.html

Publication of "Multi-Stakeholder Effort Collection for Addressing Dis-/mis-information on the Internet" (Press release) https://www.soumu.go.jp/menu_news/s-news/01ryutsu02_02000405.html

society, and governments.

Furthermore, in bilateral dialogues such as the "14th Japan-the U.S. Dialogue on the Digital Economy" and the "29th Japan-EU ICT Policy Dialogue" held in Febru-

ary 2024, discussions were held on strengthening cooperation on measures against dis-/mis-information in the European and American regions, as well as in the Asia-Pacific region, including ASEAN.

4. Realization of data distribution society toward the stimulation of Japan

(1) Development of disaster information systems

Japan is one of the world's most disaster-prone countries, and each time a large-scale natural disaster occurs, it suffers significant social and economic damage. Given the ongoing predictions of large-scale natural disasters, such as the Nankai Trough Earthquake, it is crucial to efficiently utilize ICT to mitigate human and material damage caused by disasters.

A Development of a disaster-resilient fire and disaster prevention communication network

To collect and transmit information related to damage situations, a communication network that can reliably function even during disasters is essential. Therefore, the current infrastructure includes several key communication networks that connect the national government, the Fire and Disaster Management Agency, local governments, and residents. These networks are: (1) the Central Disaster Prevention Radio Network for collecting and transmitting information within the government; (2) the Fire and Disaster Prevention Radio Network connecting the Fire and Disaster Management Agency with

B Deployment of mobile communication equipment for disaster response

The MIC lends mobile communication equipment for disaster response to local governments to ensure communication in affected areas even if mobile phone networks are disrupted (As of April 2024, 1,065 simple radios, 179 MCA radios, and 106 satellite phones are deployed across the Regional Bureau of Telecommunications etc. nationwide). Following the 2024 Noto Penin-

C Securing emergency communication means during disasters

To prepare for situations where public telecommunication services become difficult to use during disasters, the MIC has been deploying ICT units (attaché case type) to regional communication bureaus nationwide since FY2016. These units are lent to disaster-related or-

D Stable operation of the Nationwide Instantaneous Warning System (J-Alert)

The Fire and Disaster Management Agency has established the "Nationwide Instantaneous Warning System (J-Alert)" to instantly transmit information on urgent situations, such as ballistic missile alerts, emergency earthquake warnings, and major tsunami warnings, from the national government to residents via emergency alert emails to mobile phones and municipal

E Promotion of the use of L-Alert

The MIC promotes the use of the common platform (L-Alert) that allows local governments to simultaneously send disaster-related information, such as evacuation orders, to various media, including numerous broadcasters and internet service providers. L-Alert has achieved nationwide operation across all 47 prefectures and has become an essential part of the disaster inforprefectures; (3) the Prefectural Disaster Prevention Administrative Radio Network connecting prefectures with municipalities; (4) the Municipal Disaster Prevention Administrative Radio Network connecting municipalities with residents; and (5) the Satellite Communication Network connecting the national government with local governments or between local governments. Additionally, efforts are being made to introduce high-performance and cost-effective next-generation systems for the satellite communication network.

sula Earthquake, the number of satellite phones was increased, and satellite internet equipment and public safety mobile systems were established. These devices are used to build communication environments in evacuation centers and to support the collection and transmission of disaster information and the smooth execution of emergency recovery activities.

ganizations upon request to ensure necessary communication means (As of April 2024, 25 units are deployed across the Regional Bureau of Telecommunications etc.).

disaster prevention administrative radios. To ensure the rapid and reliable transmission of emergency information via J-Alert, municipalities are urged to thoroughly check the proper functioning of J-Alert-related equipment, and efforts are being made to promote the redundancy of J-Alert information transmission methods.

mation infrastructure.

To further promote the use and utilization of L-Alert, the MIC has conducted demonstrations related to mapping disaster-related information provided through L-Alert and has held training sessions for local government officials and other users. Additionally, considering the high public value of quickly and accurately conveying disaster information to the public, the MIC is also examining the expansion of L-Alert functions to contribute to the government's overall disaster DX efforts.

(2) Promotion of ICT utilization in the medical field

Japan has entered a super-aging society, facing challenges such as increasing medical and nursing care costs and the uneven distribution of medical resources. To address these issues, the MIC is working to build and enhance a foundation for utilizing medical, nursing, and health data to improve and streamline medical and health services. The main focus is on promoting "Telemedicine" and "Utilization of PHR¹⁴ data."

Specifically, as a research project by the Japan Agency for Medical Research and Development (AMED), the development and demonstration of an 8K endoscope system have been conducted since FY2022 to promote telemedicine, which is expected to be a significant solution to the uneven distribution of doctors. Additionally, efforts are being made to organize the necessary communication environments and network conditions for the realization of remote surgery. From FY2023, re-

(3) Promotion of ICT utilization in the education field

To promote the utilization of ICT in the education field, the MIC, in collaboration with the MEXT, conducted the "Smart School Platform Demonstration Project" from FY2017 to FY2019. This project aimed to verify safe, effective, and efficient data linkage methods between the "School Administration System" used by teachers and the "Classroom and Learning System" used by students. In FY2020, the "Smart School Platform Technical Specifications," which are the results of the demonstration, were published on the website to promote and disseminate the initiative. Additionally, from FY2021 to FY2022, the necessary technical specifi-

(4) Promotion of cashless payments

In the "Follow-up of the Growth Strategy" decided by the Cabinet in June 2019, it was aimed to double the cashless payment ratio to about 40% by June 2025, promoting the shift to cashless payments.

Among cashless payment methods, code payments face the issue of operational complexity for stores due to the coexistence of multiple services. To address this, the "Payments Japan Association" (observers: the MIC, the METI, etc.) was established as a promotion body by related organizations and businesses. In March 2019, the "Unified Technical Specification Guidelines for Code

(5) Promotion of safe and reliable cloud services

With the widespread adoption of cloud services such as ASP, SaaS, PaaS, and IaaS, the range of available service options has expanded. Consequently, it has become necessary to establish an environment where users can obtain sufficient information to compare, evaluate, and select cloud services. In this context, the MIC has formulated and published a total of eight guidelines known search and development are being conducted to build a data distribution infrastructure necessary for obtaining PHR data required by doctors from various PHR services to enhance medical care and refine diagnostic content.

Furthermore, considering the increasing complexity and diversification of information systems and services handling medical information and the emergence of new threats such as ransomware attacks, the "Guidelines for Safety Management in Information Systems and Service Providers Handling Medical Information" (the MIC and the METI) were revised in FY2023. Additionally, to promote the safe and secure utilization of private PHR services, discussions and improvements are being made to the "Basic Guidelines for Handling Health Checkup Information by Private PHR Service Providers" (the MIC, Ministry of Health, Labour and Welfare, and the METI).

cations (reference model) were examined to realize the "Digital Education Platform," which enables data linkage between digital learning systems held by businesses outside of school.

From FY2023 onwards, to realize personalized education through the safe and secure utilization of educational data, investigations and studies are being conducted on the utilization of PDS (Personal Data Store) in the education field. Future efforts will include demonstrations to address the technical and institutional challenges specific to the education field.

Payments" were formulated, and the unified code based on these guidelines was named "JPQR." Subsequently, efforts have been made to promote JPQR in industries with high compatibility, such as dining, retail, beauty, and taxis, as well as at local government offices where various document issuance fees are handled. By the end of FY2023, approximately 15,000 stores have adopted JPQR. Additionally, from FY2023, local tax payments using the unified QR code for local taxes have started, and the unified JPQR standard is also utilized in this QR code.

as the "Guidelines for Information Disclosure Concerning the Safety and Reliability of Cloud Services" since 2011 (partially revised in 2022). In 2022, an additional guideline titled "Guidelines for Information Disclosure Concerning the Safety and Reliability of AI-based Cloud Services (ASP/SaaS Edition)" was added to address the diversification of cloud services. Based on these guide-

¹⁴ The abbreviation for "Personal Health Record" is PHR. It generally refers to an individual's lifelong health and medical information, including health check-up, vaccination history, medication information, test results, and other medical-related information, as well as personal vital signs measured daily. It is expected to be accurately understood by the individual as an electronic record and utilized for their own health promotion.

lines, the Japan Cloud Industry Association (ASPIC) has established and operates a certification system where third parties certify whether cloud service providers comply with the aforementioned guidelines. To date, over 310 services have been certified. Furthermore, to promote the further adoption of cloud services, efforts are being made to disseminate and publicize exemplary cases of cloud services in collaboration with industry associations and other relevant organizations.

5. Creation of the safe and secure environment of ICT usage

(1) Improvement of support for digital utilization by the elderly and others

As the digitalization of society progresses, the MIC has been working on the "Project on Digital Utilization Support for Users" since FY2021 to provide support in the form of advice and consultations for the elderly and others who are anxious about using smartphones for online administrative procedures, with the aim of eliminat-

(2) Promotion of ICT literacy for a wide range of generations

To address the expanding opportunities for ICT use across a wide range of generations and the issue of the circulation of dis-/mis-information on the Internet, the MIC has been holding a "Study Group on Improving ICT Literacy for ICT Utilization¹⁵" since November 2022 and established a "Working Group on Improving ICT Literacy for Youth" in December 2022. Based on the results of

(3) Establishment of a safe internet environment for the youth

The MIC has been conducting "e-Net Caravan" free outreach sessions at schools and other educational institutions for children, students, parents, and educators to ensure a safe and secure internet environment. Additionally, they have created and published an "Internet Trouble Case Collection" that summarizes methods for preventing internet-related issues. Furthermore, they have conducted research to promote responses using parental controls¹⁶, including filtering.

In 2021, the MIC launched the website "Let's Use the Internet Wisely! - A Guide to Safe and Secure Internet Use -¹⁷" to promote awareness of safe and secure internet use, featuring content tailored to preschoolers, their parents, youth, parents and educators, and seniors. The

(4) Support for research and development towards information barrier-free

The MIC provides partial subsidies to companies conducting research and development of technologies related to communication and broadcasting services for people with disabilities and the elderly, as part of the "Research and Development for Eliminating the Digital Divide" program. In FY2023, subsidies were provided to five entities.

Additionally, under Act on Advancement of Facilita-

ing the digital divide and creating an environment where everyone can benefit from digitalization. In FY2023, these efforts were expanded to include conducting training sessions at over 6,000 locations nationwide, with a focus on mobile phone shops.

these discussions, a "Roadmap for Improving ICT Literacy for ICT Utilization" was compiled and published in June 2023, outlining the direction for short- or medium and long-term initiatives. In FY2023, efforts were made to develop learning content to address the capabilities necessary for improving ICT literacy and common challenges across a wide range of generations.

site also includes special features on "Current Topics" such as "Cyberbullying including social media," "Measures against Piracy on the Internet," and "Dis-/mis-information," contributing to efforts to improve literacy¹⁸.

Additionally, in FY2011, the MIC developed the "Internet Literacy Assessment Indicator for Students (ILAS)"¹⁹ to visualize the internet literacy of youth, focusing on their ability to respond to dangers and threats on the Internet. This assessment measures seven risks, including illegal information risk, inappropriate use risk, and privacy risk, and has been conducted annually since FY2012 for first-year high school students nationwide. In FY2023, it was conducted at 75 schools with 13,108 participants, achieving an overall correct answer rate of 71.4%.

tion Program for Disabled Persons' Use of Telecommunications and Broadcasting Services, with a View to Enhance Convenience of Disabled Persons (Act No. 54 of 1993), the NICT provides subsidies to companies and organizations developing and providing communication and broadcasting services for people with disabilities. In FY2023, subsidies were provided to six entities.

¹⁵ Study Group on Improving ICT Literacy for ICT Utilization

https://www.soumu.go.jp/main_sosiki/kenkyu/ict_literacy/index.html

¹⁶ It means that parents oversee their children's internet use appropriately, considering their developmental stage and life cycle. This includes preventing troubles that may arise from children's information dissemination. Management methods are divided into technical means (such as filtering, billing restriction functions, and time management functions) and non-technical means (such as creating rules between parents and children). (General Principles for Child-Related Measures (Cabinet Decision on December 22, 2023), P50)

¹⁷ Let's Use the Internet Wisely! - A Guide to Safe and Secure Internet Use -

https://www.soumu.go.jp/use_the_internet_wisely/

¹⁸ Refer to the section 2 in Chapter 2, Part 2.

¹⁹ https://www.soumu.go.jp/use_the_internet_wisely/special/ilas/

(5) Improvement of information accessibility

To make it easier for everyone, including the elderly and people with disabilities, to use public institution websites, the MIC conducted a partial revision of the "Guidelines for Operating Everyone's Public Websites" in the FY2023. In the same fiscal year, a survey on JIS compliance of public institution websites and workshops for public institutions were held at five locations nationwide. Efforts are also being made to promote the dissemination of self-assessment forms for information accessibility among companies and organizations. The "Information Accessibility Self-Assessment Form" is a tool for companies and organizations to publicly disclose the results of their self-assessment of whether their ICT

(6) Provision of telephone relay services as public infrastructure

The "Telephone Relay Service" is a service where sign language interpreters and other operators act as intermediaries, interpreting sign language and text from individuals with hearing impairments or other disabilities affecting auditory, speech, or vocal functions, to facilitate communication via telephone between these individuals and those without such impairments.

To ensure the proper and reliable provision of the "Telephone Relay Service," the Act on Facilitating the Use of Telephones by Persons with Hearing Impairequipment and services meet information accessibility standards, serving as a reference for companies, public institutions, and people with disabilities when selecting ICT equipment and services. This self-assessment form was created by the MIC, drawing on the Voluntary Product Accessibility Template (VPAT) used in the U.S. In the U.S., the law mandates that the government must procure accessible electronic information equipment. The MIC has been promoting the use of these forms through the establishment of support centers, seminars, and the collection of good practices, as well as the updating of guidebooks.

ments, etc. (Act No. 53 of 2020) was enacted in December 2020. From July 2021, the Japan Foundation Telephone Relay Service, designated as the service provider, began offering the Telephone Relay Service as public infrastructure. To further promote the use of the Telephone Relay Service, the MIC, in collaboration with relevant ministries and agencies, has been conducting awareness and publicity activities. As of the end of FY2023, the number of registered users reached 15,267. **(Figure 2-2-6-1)**



Figure 2-2-6-1 Illustration of promotion of telephone relay service