Section 2 Highlighted issues and responses in the future

1. Communication

(1) Strengthening mobile base stations and optical fiber

In the Noto Peninsula Earthquake, power outages and transmission line disruptions caused mobile base stations to be non-functional for extended periods. To fortify mobile base stations against future disasters, it is necessary to consider measures such as extending the lifespan of the batteries installed in these stations, in-

(2) Achieving intercarrier roaming in emergencies

"Intercarrier Roaming," which allows mobile phone users to temporarily use another mobile carrier's network, is one strategy to ensure continuous communication services related to natural disasters or communication failures.

The MIC has been holding the "Study Group on Intercarrier Roaming in Emergency Situations" since September 2022. The working group has reported that in areas where only some mobile carriers experienced serstalling solar panels, and utilizing satellite connections.

Additionally, the disruption of transmission lines also rendered fixed internet services unusable. To prevent future disruptions caused by the collapse of utility poles and the severing of optical fibers, it is essential to promote the underground installation of these fibers.

vice disruptions related to the earthquake, intercarrier roaming could provide a complementary solution (Figure 1-2-2-1). The study group is also conducting technical examinations and verifications with the aim of introducing Full Intercarrier Roaming, which allows general calls, data communication, and callbacks from emergency respond agencies, as well as a roaming method that temporarily enables only emergency calls in case of core network failures, by the end of FY2025.



Figure 1-2-2-1 Image of achieving intercarrier roaming in emergencies

(Source) Study Group on Intercarrier Roaming in Emergency Situation (11th meeting) Excerpt material 11-3

(3) Expanding the use of satellite communications

Satellite communications, which can efficiently cover remote islands, maritime areas, and mountainous regions, are considered useful as a means of communication during emergencies, including natural disasters. In the Noto Peninsula Earthquake, SpaceX's low Earth orbit satellite communication service "Starlink" was widely utilized for emergency restoration. Additionally, there are plans to provide satellite direct communication services that enable the use of satellite communications from mobile phones (smartphones). To further expand the use of satellite communications, efforts are being made to examine technical conditions related to the frequencies used and to secure the necessary frequencies.

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2. Broadcasting

In response to the recent Noto Peninsula Earthquake, broadcasters played a crucial role in delivering accurate information to the affected individuals. However, challenges such as power outages and transmission line disruptions leading to service interruptions also became apparent. In preparation for future events, it is necessary to strengthen broadcast networks by implementing measures such as power outage countermeasures for center facilities, enhancing monitoring capabilities for transmission lines, and promoting the shared use and common facilities of relay stations. Additionally, measures such as optical and multiple-wire conversion of cable networks should be implemented to enhance the resilience of broadcast networks. The MIC is conducting discussions on challenges in relay station shared use involving terrestrial broadcasters and considering the institutional arrangement of broadcasting in the digital era by further examining the significance and role of broadcasting.

3. Postal services

Efforts are being considered to utilize data held by the post office, such as by installing drive recorders on delivery vehicles to selectively collect and analyze information on the road conditions in the Okunoto region. This information would be used to aid in the post office's delivery planning. If requested by local governments or other entities, the road condition data obtained through this initiative may also be provided to contribute to the region's reconstruction, with necessary measures such as anonymization being taken into consideration.

4. Response to dis-/mis-information

In the Noto Peninsula Earthquake, the circulation and spread of dis-/mis-information on the Internet became a significant issue, exacerbated by the increased use of social media by the public. The MIC issued a warning about dis-/mis-information on the Internet through social media on January 2, the day after the disaster. Additionally, the MIC requested major social media platform operators to take appropriate actions based on their terms of use¹.

Furthermore, to ensure the healthiness of information circulation in the digital space, the MIC has been holding a "Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space" since November 2023. The group is considering comprehensive measures, including institutional aspects, to address the circulation and spread of dis-/mis-information, with plans to publish a summary of their findings by the summer of 2024².

¹ Refer to Column 1 "Response to dis-/mis-information related to the disaster".

² Regarding the study committee on how to ensure the healthiness of information circulation in the digital space also refer to Section 6 "Promotion of ICT utilization" in Chapter 2, Part II.

Column Response to dis-/mis-information related to the disaster

1. The situation of the circulation and spread of dis-/mis-information on the Internet regarding the 2024 Noto Peninsula Earthquake

(1) About dis-/mis-information related to the Noto Peninsula Earthquake

In the Noto Peninsula Earthquake, while SNS contributed as a means of information gathering and safety confirmation, it has been pointed out that dis-/mis-information that could hinder prompt rescue activities and smooth recovery and reconstruction efforts¹ circulated on SNS.

According to X (Twitter Japan), the main posts on X (formerly Twitter) containing dis-/mis-information about the Noto Peninsula Earthquake included approximately 100,000 posts mentioning the earthquake as an "artificial earthquake," about 200 posts regarding "thieves" (appearing in the area), about 350 posts related to "support requests" (soliciting fake donations), and about 21,000 posts related to "rescue requests."²

Additionally, the Japan Fact-Check Center (JFC) has been continuously verifying and fact-checking the large amount of dis-/mis-information spread regarding the Noto Peninsula Earthquake. On January 27, 2024, they organized and published trends on what becomes a topic at each stage from disaster occurrence to recovery and reconstruction³. They classified five types of disinformation that spread during disasters and published fact-check articles such as "The claim that '19,800 liters of oil started leaking from the Shika Nuclear Power Plant into the sea' is false" and "The site calling for donations in cryptocurrency is false."

According to the analysis of posts on X (formerly Twitter)⁴ by the disaster situation summary system D-SUMM⁵ (developed and trial-released by the National Institute of Information and Communications Technology, hereinafter referred as to NICT), the number of reports seeking rescue within 24 hours after the Noto Peninsula Earthquake (1,091 out of a total of 16,739 reports) doubled compared to the number of reports related to the 2016 Kumamoto Earthquake (573 out of a total of 19,095 reports). Among these 1,091 posts, 254 posts were detected with contradictory reports, and 104 were estimated to be disinformation⁶. The system analyzes 10% of Japanese posts on X, but related to the Kumamoto Earthquake, only one post out of 573 rescue requests was considered disinformation, indicating that more disinformation was posted on SNS related to the Noto Peninsula Earthquake7.

During disasters, it is crucial to reliably obtain disaster and evacuation information. To obtain accurate information, it is useful to refer to government and municipal websites, broadcasts backed by reporting and editing, and information from fact-checking organizations.

(2) Characteristics of dis-/mis-information related to the Noto Peninsula Earthquake

Associate Professor SHIBUYA of the Graduate School of Information Science and Technology at the University

A X (formerly Twitter)

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While there were posts made with good intentions, there were also duplicate posts related to requests for rescue, which were believed to be for the purpose of increasing views, as well as false requests for rescue and posts of Tokyo has pointed out the following characteristics of dis-/mis-information d the Noto Peninsula Earthquake.

requesting money transfers for fraudulent purposes.

Furthermore, it was characteristic that about 90% of the users who made duplicate posts were estimated to be non-Japanese language users.

³ Japan Fact Check Center, "Noto Peninsula Earthquake, disinformation that changes immediately after the occurrence [Fact Check Summary]", January 27, 2024, https://www.factcheckcenter.jp/fact-check/disasters/earthquake-factcheck-list/

¹ NHK ""Unscrupulous and annoying" What is the reality of the series of fake rescue requests after the Noto Peninsula earthquake?", March 12, 2024, https://www3.nhk.or.jp/news/html/20240312/k10014383261000.html

² X, "About X's efforts against dis-/mis-information" (Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space (15th Meeting) Material 15-2-3), March 28, 2024, https://www.soumu.go.jp/main_content/000938666.pdf>

⁴ It is a summary system in which AI is used to automatically extract, organize, and present reports related to disasters for each municipality (such as "fires are occurring") from posts on X (formerly Twitter). It was open for testing from 2016 until the end of FY2023. If there is a post that contradicts the report, it will be automatically flagged as a possible false news. Posts on X (formerly Twitter) to be analyzed accounts amounts to 10% of Japanese posts.

⁵ TORIZAWA Kentaro, Fellow, the NICT "Introduction to initiatives and studies at the NICT" Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space, Materials presented in the study group (April 15, 2024), https://www.soumu.go.jp/main_content/000942562.pdf>

⁶ According to the NICT, checks such as posting non-existent addresses and matching content mentioned in reports about hoaxes, etc. are conducted to identify false rumors. It is important to note that the estimates may be wrong, as they are not determining whether or not it is a hoax on the spot.

⁷ "Rapid raise of false rumors from 1 to 104...Researchers lament over "fake waves" on SNS about Noto Peninsula Earthquake", February 27, 2024, https://newswitch.jp/p/40645





(Source) SHIBUYA Yuya, NAKAZATO Tomoka "Reports on the situation of circulation of dis-/mis-information in the digital space in the 2024 Noto Peninsula Earthquake"



Figure 2 Characteristics of posts related to the disaster in X: duplicate posts

(Source) SHIBUYA Yuya, NAKAZATO Tomoka "Reports on the situation of circulation of dis-/mis-information in the digital space in the 2024 Noto Peninsula Earthquake"

B X: Community Notes

The Community Notes feature was created in X from 2021 onwards to obtain more accurate information, and it allows users to provide background information to tweets that may cause misunderstandings. It is expected to play a role in fact-checking uncertain information. In

relation to the Noto Peninsula Earthquake, many Community Notes were created, and the number of people who participated for the first time in creating Community Notes reached its highest related to the Noto Peninsula Earthquake.

2. Response by the MIC

In light of the circulation and spread of dis-/mis-information on social media, Prime Minister KISHIDA Fumio, during a press conference on January 2, the day after the earthquake, called for restraint, stating, "The dissemination of malicious dis-/mis-information about the damage situation is absolutely unacceptable. Please refrain from doing so." On the same day, the MIC issued a warning against dis-/mis-information on its social media accounts. Additionally, the MIC shared this warning with major social media platform operators⁸ and requested that they continue to take appropriate actions based on their terms of service.

The warning issued by the MIC on X (formerly Twitter) received approximately 1.8 million views, garnering significant attention compared to other posts⁹. It also received numerous reactions on Facebook and Instagram (Figure 3).

On January 4, during a press conference, the Prime Minister reiterated the request to major social media platform operators to continue taking appropriate actions based on their terms of service. On January 5, the MIC began requesting daily reports from platform operators to monitor their responses to the above requests. The reports were to include: (1) the number of posts deleted and accounts suspended after the earthquake; (2) the main content of the posts targeted in (1); (3) the presence and number of responses to disinformation identified through fact-checking; (4) the response status to external requests for deletion of disinformation; (5) the presence and content of any enhancements to the response system for disinformation, (6) the status of cooperation among platform operators (information sharing, etc.); and (7) the status of cooperation with various government agencies.

Additionally, immediately after the disaster, the MIC requested broadcasters to warn viewers about dis-/misinformation. The MIC also called on social media platform operators and the media to alert information recipients.

Furthermore, on January 15, two weeks after the earthquake, the MIC issued another warning on its social media accounts, introducing examples of uncertain posts on the Internet in addition to warnings about dis-/ mis-information.

Based on the "Package for Supporting the Lives and Livelihoods of Disaster Victims" (decided by the Noto Peninsula Earthquake Emergency Disaster Response Headquarters on January 25, 2024), the MIC, in collaboration with the Government Public Relations Office, published web advertisements to warn the four affected prefectures¹⁰ on January 31. On February 9, the MIC, again in collaboration with the Government Public Relations Office, published newspaper advertisements to issue warnings.

Figure 3 Warning issued by the MIC

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⁸ LINE Yahoo, X (formerly Twitter), Meta, Google

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⁹ As of January 19, 2024. Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space (6th meeting) Material 6-4), January 19, 2024 https://www.soumu.go.jp/main_content/000923727.pdf>

¹⁰ Niigata Prefecture, Toyama Prefecture, Ishikawa Prefecture, Fukui Prefecture

3. Response by platform operators

(1) Platform operators

On January 5, following the request for daily reports on actions taken based on their terms of service, LINE Yahoo strengthened its monitoring efforts, deleting clear disinformation and other violating posts, and issued warnings about dis-/mis-information on social media related to disasters. X (formerly Twitter) labeled unrelated content as spam and suspended accounts for suspicious support requests using QR codes. Meta reported deleting posts in response to reports and sharing information through the "Disaster Support Hub"¹¹ on Facebook. Google reported establishing a system for intensive monitoring on YouTube for a certain period and implementing measures to make reliable information more accessible.

The MIC, through the "Study Group on Ensuring the Healthiness of Information Circulation in the Digital Spaces," confirmed and analyzed the efforts of each operator. To utilize this information for future policies and specific measures to ensure the healthiness of information circulation in digital spaces, the MIC conducted hearings with platform operators from February to March 2024. The following points were raised regarding the response to the spread of dis-/mis-information related to the Noto Peninsula Earthquake¹²:

• While some operators provided responses on the overall number of posts deleted, hidden, or accounts suspended by businesses in Japan, the overall number of moderation actions taken in Japan was unclear for almost all operators.

(2) Broadcasters

In the Noto Peninsula Earthquake, the spread of dis-/ mis-information on social media became a significant issue as stated above.

In response, broadcasters reported that claims about the earthquake being "Artificial" were scientifically baseless disinformation, warned about false rescue requests, and called for calm responses. Broadcasters

- While some operators provided responses on the number of posts deleted based on clear errors identified by fact-checking organizations, the coordination with fact-checking organizations and the number of posts deleted through moderation was unclear for almost all operators.
- There are insufficient transparency and accountability in the efforts of businesses in Japan to address the overall trend of moderation responses, stakeholder collaboration, and coordination with fact-checking organizations and traditional media in terms of assessing and responding to the healthiness of information circulation related to disasters in Japan, as well as the impact and risks on individual decision-making autonomy, rights infringement, social disruption, and other real-world implications.

The spread of dis-/mis-information related to the Noto Peninsula Earthquake hindered swift rescue and recovery efforts, posing a serious problem. With the advancement of AI technology, the generation of sophisticated fake images and the spread of dis-/mis-information are expected to increase significantly. Social media platform operators are expected to fulfill their social responsibility to reduce the spread of dis-/mis-information by implementing content moderation, such as deleting problematic posts, to ensure the proper circulation of information.

have a responsibility to widely report facts including disaster information in accordance with program guidelines stating "to Report Facts Accurately" as stipulated by the Broadcasting Act and played an important role in providing accurate information to disaster victims related to the Noto Peninsula Earthquake.

¹¹ Facebook functions that allow you to report your safety, request support, obtain and share disaster-related information, etc.

¹² MIC, 22nd Meeting of the Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space, Material 22-1-1 "Platform

Operators Hearing Summary (Draft)" June 10, 2024, https://www.soumu.go.jp/main_content/000951295.pdf



instead of easily spreading emotionally charged information or videos.

(Source) MIC "Study Group on the Future of Broadcasting Systems in the Digital Age"

4. Future response to dis-/mis-information in disasters

For future disaster response, it is suggested that measures should focus on: (1) early warnings and public awareness, as well as response and mitigation of dissemination and impact; (2) tailoring responses based on the characteristics and trends of easily disseminated information; and (3) strengthening and promoting responses and measures according to the roles of various stakeholders¹⁴.

Furthermore, it is important to consider the response of not only platformers to circulate information but also information recipients, as research has shown that 77.5% of individuals who encounter disinformation are unaware of being deceived, particularly among those aged 50s and 60s¹⁵. Initiatives such as promoting fact-checking activities and enhancing digital literacy are crucial. Discussions are ongoing in the "Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space" regarding the fundamental principles in the process of information circulation including information dissemination, information reception, and information transmission, the roles of stakeholders, and specific measures to ensure the healthiness of information circulation in the digital space.

¹³ 24th meeting of the Study Group on the State of the Broadcasting System in the Digital Age, Material 24-2 "Status of the broadcasting field in the 2024 Noto Peninsula Earthquake" (March 5, 2020), https://www.soumu.go.jp/main_content/000931153.pdf>

¹⁴ 17th meeting of the Study Group on Ensuring the Healthiness of Information Circulation in the Digital Space, Material 17-1-2 "Trends in the spread of information and expected responses and countermeasures for each stakeholder," April 17, 2024, https://www.soumu.go.jp/main_content/000946374.pdf>

content/000946374.pdf> ¹⁵ YAMAGUCHI Shinichi, "How to prevent the spread of disinformation related to disasters: Take a breath and check carefully. From the case of the Noto Peninsula Earthquake," March 14, 2024, ">https://www.nippon.com/ja/in-depth/d00987/>