

## Section 8 Digital Usage Trends

### 1. Digital usage trends in the daily life of the public

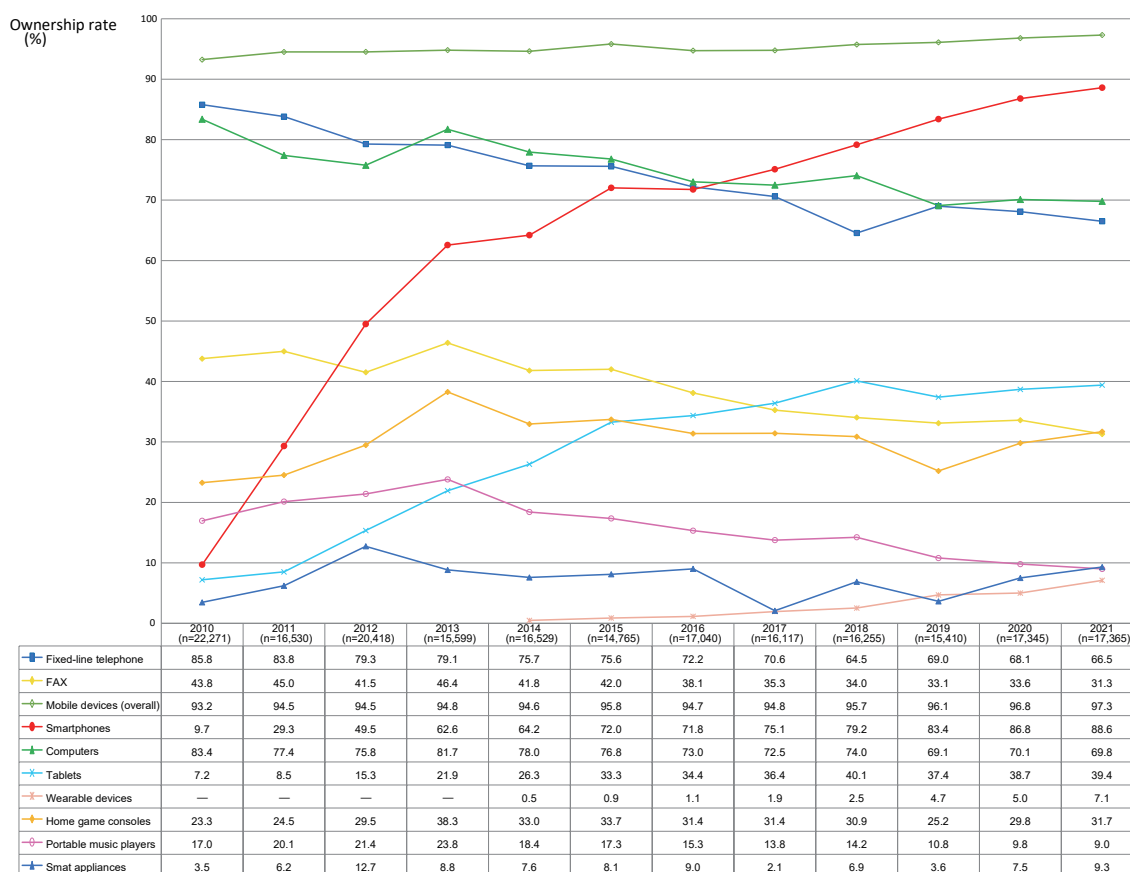
#### (1) Overview

##### i Ownership of information communication equipment

Regarding terminals for internet connection necessary to use digital technologies, the rate of household

ownership of any “mobile terminal” is 97.3%: rates of “smartphone” and “personal computer” are 88.6% and 69.8% (included in the total) respectively (Figure 3-8-1-1).

Figure 3-8-1-1 Changes in the rate of household ownership of information communication equipment



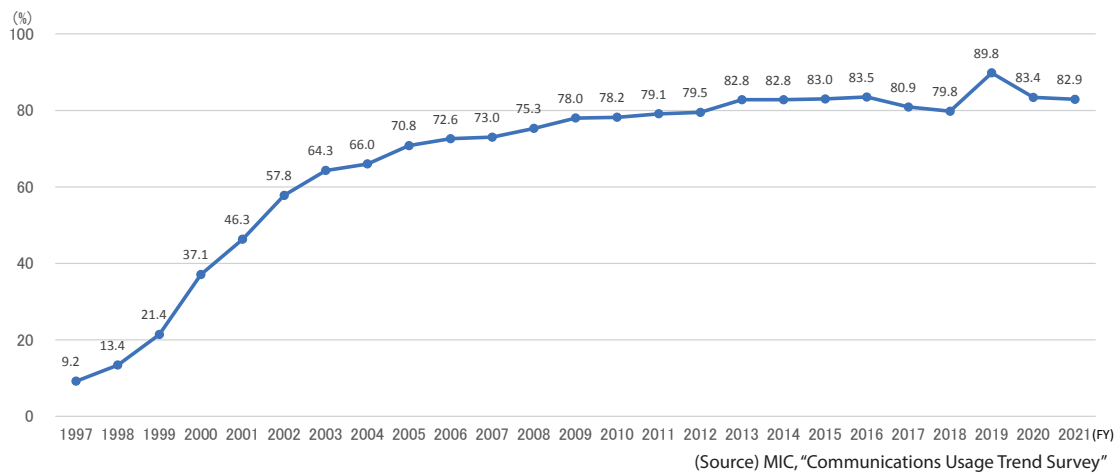
(Source) MIC, “Communications Usage Trend Survey”<sup>86</sup>

##### ii Internet usage trend

The internet usage rate (individuals) was 82.9% in 2021 (Figure 3-8-1-2). By terminal, rate of “smart-

phone” (68.5%) is higher than that of “personal computer” (48.1%) by 20.4 points.

<sup>86</sup> <https://www.soumu.go.jp/johotsusintokei/statistics/statistics05.html>

Figure 3-8-1-2 Changes in the internet usage rate (individuals)<sup>87</sup>

Related data

Type of terminals for using the internet (individuals)

Source: MIC, "Communications Usage Trend Survey"

URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-4](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-4) (Data Collection)

### iii Media usage time

Since 2012, the Institute for Information and Communications Policy of MIC has surveyed the usage time, time slots of usage, purpose and reliability of information and communications media and information behavior as joint research with Professor HASHIMOTO Yoshiaki at the School of Arts and Science, Tokyo Woman's Christian University, and others<sup>88</sup>.<sup>89</sup> Below is an overview of the usage time, etc. of information and communication media based on the survey result of fiscal 2021.<sup>90</sup>

#### (i) Average usage time<sup>91</sup> and doers' ratio<sup>92</sup> of major media

Figure 3-8-1-3 shows average usage time and doers' ratio of "television viewing (real-time)",<sup>93</sup> "television viewing (recorded program)", "Internet use"<sup>94</sup>, "newspaper reading" and "radio listening."

Average usage time of "television viewing (real-time)" and "Internet use" of all respondents is long for both

weekdays and holidays. On weekdays, "Internet use" is longer than "television viewing (real-time)" for the second straight year. Doers' ratio of "television viewing (real-time)" is lower than the doers' ratio of "Internet use" for both weekdays and holidays.

By age group, average usage time of Internet increased or remained almost flat except among teens on weekdays and teens and fifties on holidays. "Television viewing (real-time)" is longer with older age groups, and longest among sixties. On holidays, doers' ratio of "Internet use" is highest in the 10s, 20s, 30s and 40s age groups, while doers' ratio of "television viewing (real-time)" is highest in the 50s and 60s age groups. On weekdays, doers' ratio of "Internet use" of fifties exceeded their doers' ratio of "television viewing (real-time)" for the first time. Doers' ratio of "newspaper reading" is also higher with older age.

<sup>87</sup> Because the design of questionnaire of the 2019 survey is partially different compared with other years, interannual comparison requires caution.

<sup>88</sup> Professor KITAMURA Satoshi at the Faculty of Communication Studies, Tokyo Keizai University, and Project Assistant Professor KAWAI Daisuke at the Center for Integrated Disaster Information Research (CIDIR), Interfaculty Initiative in Information Studies, the University of Tokyo.

<sup>89</sup> Survey on Usage Time of Information and Communication Media and Information Behavior: 1,500 men and women aged 13 to 69 (selected by sex and age group (in 10 year increments) in proportion to the actual situation in the Basic Resident Register. Register of January 2021 was used for the 2021 survey.) were visited and received questionnaires based on random location quota sampling.

<sup>90</sup> FY2021 survey was conducted from November 30 to December 6. The values of 2017 in the figure show the result of the survey of 2017, while values of 2018 and after are results of the respective fiscal year.

<sup>91</sup> The total time of the referred information activity per a survey day is divided by the number of the survey subjects. Average time is calculated by including the respondents who did not do the activity throughout the day.

<sup>92</sup> For weekdays, a percentage of all persons who did the referred information activity during two surveyed days was calculated and the average value of the two days was obtained. Rate of holiday is the rate of the survey date.

<sup>93</sup> Television viewing (real-time): Real-time television viewing with any equipment not limited to TV receiver

<sup>94</sup> Internet use: regardless of equipment, the term refers to use of services enabled by internet connection, which include email, websites, social media, video sites, and online games.

Figure 3-8-1-3 Average usage time and doers' ratio of major media

[One weekday]

		Average usage time (minute)					Doers' ratio (%)				
		Television viewing (real-time)	Television viewing (recorded program)	Internet use	Newspaper reading	Radio listening	Television viewing (real-time)	Television viewing (recorded program)	Internet use	Newspaper reading	Radio listening
All age groups	2017	159.4	17.2	100.4	10.2	10.6	80.8%	15.9%	78.0%	30.8%	6.2%
	2018	156.7	20.3	112.4	8.7	13.0	79.3%	18.7%	82.0%	26.6%	6.5%
	2019	161.2	20.3	126.2	8.4	12.4	81.6%	19.9%	85.5%	26.1%	7.2%
	2020	163.2	20.2	168.4	8.5	13.4	81.8%	19.7%	87.8%	25.5%	7.7%
	2021	146.0	17.8	176.8	7.2	12.2	74.4%	18.6%	89.6%	22.1%	6.2%
10s	2017	73.3	10.6	128.8	0.3	1.5	60.4%	13.7%	88.5%	3.6%	1.4%
	2018	71.8	12.7	167.5	0.3	0.2	63.1%	15.2%	89.0%	2.5%	1.1%
	2019	69.0	14.7	167.9	0.3	4.1	61.6%	19.4%	92.6%	2.1%	1.8%
	2020	73.1	12.2	214.2	1.4	2.3	59.9%	14.8%	90.1%	2.5%	1.8%
	2021	57.3	12.1	191.5	0.4	3.3	56.7%	16.3%	91.5%	1.1%	0.7%
20s	2017	91.8	13.9	161.4	1.4	2.0	63.7%	14.4%	95.1%	7.4%	3.0%
	2018	105.9	18.7	149.8	1.2	0.9	67.5%	16.5%	91.4%	5.3%	0.7%
	2019	101.8	15.6	177.7	1.8	3.4	65.9%	14.7%	93.4%	5.7%	3.3%
	2020	88.0	14.6	255.4	1.7	4.0	65.7%	13.6%	96.0%	6.3%	3.1%
	2021	71.2	15.1	275.0	0.9	7.0	51.9%	13.7%	96.5%	2.6%	3.0%
30s	2017	121.6	15.3	120.4	3.5	4.3	76.5%	15.5%	90.6%	16.6%	2.3%
	2018	124.4	17.4	110.7	3.0	9.4	74.1%	19.1%	91.1%	13.0%	4.3%
	2019	124.2	24.5	154.1	2.2	5.0	76.7%	21.9%	91.9%	10.5%	2.2%
	2020	135.4	19.3	188.6	1.9	8.4	78.2%	19.4%	95.0%	8.8%	6.0%
	2021	107.4	18.9	188.2	1.5	4.8	65.8%	20.9%	94.9%	5.9%	3.2%
40s	2017	150.3	19.8	108.3	6.3	12.0	83.0%	17.3%	83.5%	28.3%	7.9%
	2018	150.3	20.2	119.7	4.8	16.6	79.2%	18.8%	87.0%	23.1%	7.4%
	2019	145.9	17.8	114.1	5.3	9.5	84.0%	18.9%	91.3%	23.6%	6.0%
	2020	151.0	20.3	160.2	5.5	11.7	86.2%	23.0%	92.6%	24.1%	6.0%
	2021	132.8	13.6	176.8	4.3	12.9	77.8%	15.3%	94.6%	17.9%	5.4%
50s	2017	202.0	19.1	77.1	16.3	19.5	91.7%	16.1%	76.6%	48.1%	9.1%
	2018	176.9	20.8	104.3	12.9	17.2	88.5%	20.6%	82.0%	43.9%	9.3%
	2019	201.4	22.5	114.0	12.0	18.3	92.8%	21.9%	84.2%	38.5%	12.2%
	2020	195.6	23.4	130.0	11.9	26.9	91.8%	20.7%	85.0%	39.4%	13.4%
	2021	187.7	18.7	153.6	9.1	23.6	86.4%	20.9%	89.4%	33.8%	11.1%
60s	2017	252.9	20.0	38.1	25.9	17.3	94.2%	16.6%	15.6%	59.9%	9.5%
	2018	249.7	27.3	60.9	23.1	22.8	91.6%	19.7%	59.0%	52.8%	11.7%
	2019	269.3	23.2	69.4	22.5	27.2	93.6%	21.2%	65.7%	57.2%	13.4%
	2020	271.4	25.7	105.5	23.2	18.5	92.9%	22.3%	71.3%	53.7%	12.1%
	2021	254.6	25.8	107.4	22.0	14.4	92.0%	23.0%	72.8%	55.1%	10.0%

[One holiday]

		Average usage time (minute)					Doers' ratio (%)				
		Television viewing (real-time)	Television viewing (recorded program)	Internet use	Newspaper reading	Radio listening	Television viewing (real-time)	Television viewing (recorded program)	Internet use	Newspaper reading	Radio listening
All age groups	2017	214.0	27.2	123.0	12.2	5.6	83.3%	22.2%	78.4%	30.7%	4.5%
	2018	219.8	31.3	145.8	10.3	7.5	82.2%	23.7%	84.5%	27.6%	5.1%
	2019	215.9	33.0	131.5	8.5	6.4	81.2%	23.3%	81.0%	23.5%	4.6%
	2020	223.3	39.6	174.9	8.3	7.6	80.5%	27.6%	84.6%	22.8%	4.7%
	2021	193.6	26.3	176.5	7.3	7.0	75.9%	21.3%	86.7%	19.3%	4.2%
10s	2017	120.5	20.6	212.5	0.5	3.6	66.2%	19.4%	92.1%	3.6%	1.4%
	2018	113.4	28.8	271.0	0.9	0.7	67.4%	27.7%	91.5%	3.5%	2.1%
	2019	87.4	21.3	238.5	0.1	0.0	52.8%	17.6%	90.1%	0.7%	0.0%
	2020	93.9	29.8	290.3	0.9	0.0	54.9%	25.4%	91.5%	1.4%	0.0%
	2021	73.9	12.3	253.8	0.0	0.0	57.4%	14.9%	90.8%	0.0%	0.0%
20s	2017	120.3	26.6	218.8	2.4	2.9	67.6%	24.5%	97.7%	7.9%	2.3%
	2018	151.0	32.8	212.9	2.1	2.1	66.5%	24.9%	95.7%	6.2%	2.4%
	2019	138.5	23.0	223.2	0.9	1.2	69.7%	19.9%	91.0%	3.3%	1.9%
	2020	132.3	26.5	293.3	2.0	1.9	64.3%	20.2%	97.7%	6.6%	2.3%
	2021	90.8	17.2	303.1	0.7	1.8	49.3%	14.0%	97.2%	2.3%	1.4%
30s	2017	166.9	26.4	136.0	3.8	2.8	79.4%	21.8%	90.5%	14.1%	1.9%
	2018	187.2	26.6	150.2	3.5	3.9	79.8%	19.1%	92.6%	11.7%	3.5%
	2019	168.2	31.0	149.5	2.5	2.0	78.3%	23.3%	90.1%	9.9%	2.0%
	2020	198.1	45.0	191.3	1.6	7.4	77.2%	31.6%	91.2%	5.6%	3.2%
	2021	147.6	30.3	212.3	1.5	3.2	69.6%	22.7%	92.3%	4.0%	1.2%
40s	2017	213.3	31.6	109.2	7.6	4.7	83.8%	25.2%	84.4%	29.6%	5.0%
	2018	213.9	39.0	145.3	6.4	8.2	82.7%	25.9%	90.4%	25.3%	3.4%
	2019	216.2	37.5	98.8	6.0	5.0	83.7%	25.5%	84.7%	20.2%	3.7%
	2020	232.7	41.5	154.5	5.2	4.2	85.3%	28.5%	89.3%	19.9%	3.1%
	2021	191.1	28.5	155.7	4.9	6.3	79.0%	21.0%	91.0%	14.8%	3.4%
50s	2017	265.7	30.8	82.4	16.1	7.4	93.4%	23.3%	73.3%	44.6%	5.8%
	2018	269.8	22.9	115.0	15.3	10.4	91.9%	21.5%	80.7%	42.2%	7.0%
	2019	277.5	48.0	107.9	12.9	6.6	90.3%	30.6%	77.3%	37.4%	6.5%
	2020	256.5	49.8	127.8	12.5	16.3	91.6%	31.4%	81.5%	36.6%	7.7%
	2021	242.6	28.9	119.0	9.2	14.2	84.8%	24.9%	82.2%	29.6%	8.1%
60s	2017	320.7	23.6	44.6	33.0	10.2	96.7%	18.1%	16.1%	62.8%	7.9%
	2018	315.3	34.6	64.3	26.1	14.1	93.0%	24.4%	63.2%	56.9%	10.0%
	2019	317.6	28.1	56.1	21.8	18.5	94.5%	19.0%	69.7%	51.7%	10.3%
	2020	334.7	37.2	83.7	22.0	10.9	91.8%	25.9%	63.1%	50.4%	9.2%
	2021	326.1	31.4	92.7	22.3	11.2	93.5%	25.4%	71.0%	50.4%	8.0%

(Source) Institute for Information and Communications Policy, MIC, "FY2021 Survey on Usage Time of Information and Communication Media and Information Behavior"

## (ii) Positioning of the internet as media

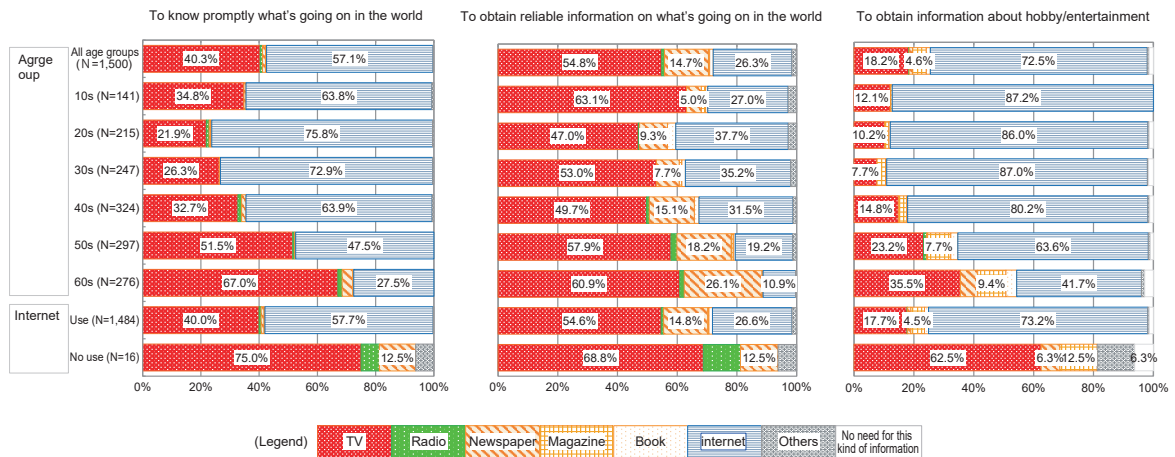
Figure 3-8-1-4 compares use of Internet as media with other media for each purpose of use.

The most used media “to know promptly what’s going on in the world” of all respondents is “Internet”. By age group, “Internet” is more used than “television” for this purpose by respondents in their 10s, 20s, 30s and 40s, while “television” is most used by respondents in their 50s and 60s.

The most used media “to obtain reliable information on what’s going on in the world” is “television” in total of all age groups as well as in each age group. The ratio of “newspaper” increases with higher age and exceeds the ratio of “Internet” in the 60s bracket.

The most used media “to obtain information about hobby/entertainment” is “Internet” in all and each age groups. The ratio is over 80% among the respondents in their 10s, 20s, 30s and 40s.

Figure 3-8-1-4 Media use by purpose (most used media of all age groups, by age group and by use of the internet)



(Source) Institute for Information and Communications Policy, MIC, “FY2021 Survey on Usage Time of Information and Communication Media and Information Behavior”

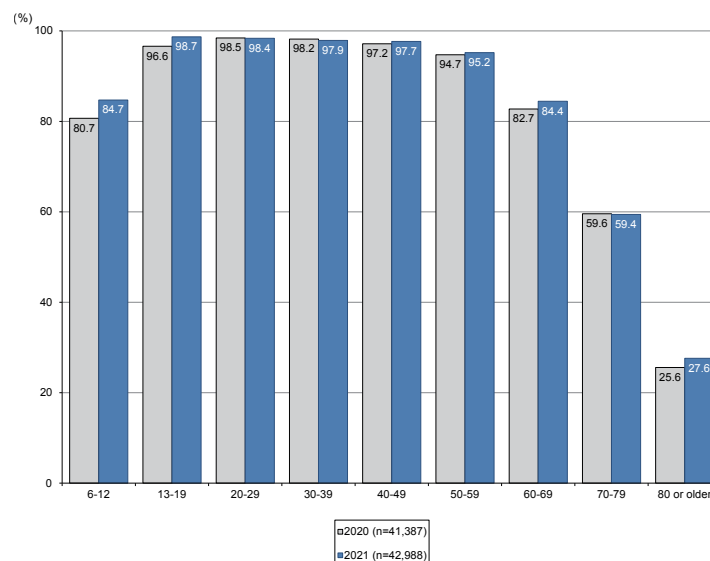
## (2) Challenges in utilization of digital technologies

### i Digital divide due to age

According to “Communications Usage Trend Survey” conducted by MIC, Internet usage rate is over 90% in

age groups from 13 to 59, but the usage rate decreases with older age groups starting from 60 (Figure 3-8-1-5).

Figure 3-8-1-5 Internet usage rate by age group



(Source) MIC “Communications Usage Trend Survey”

## ii Concerns about and resistance to use of digital technologies

According to the “Communications Usage Trend Survey” conducted by MIC, about 75% of Internet users aged 12 or older have some concerns about using the Internet (Figure 3-8-1-6). The most common concern

is in relation to “leaks of personal information and internet usage history” at 90.1%, followed by “computer virus infections” (62.7%) and “fraudulent email or fraud using internet” (54.1%) (Figure 3-8-1-7).

Figure 3-8-1-6 Responses of individuals regarding concerns about using the Internet

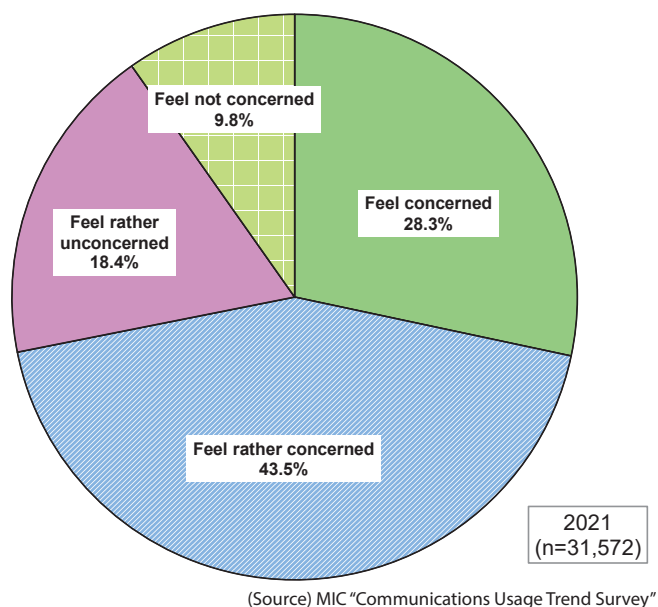
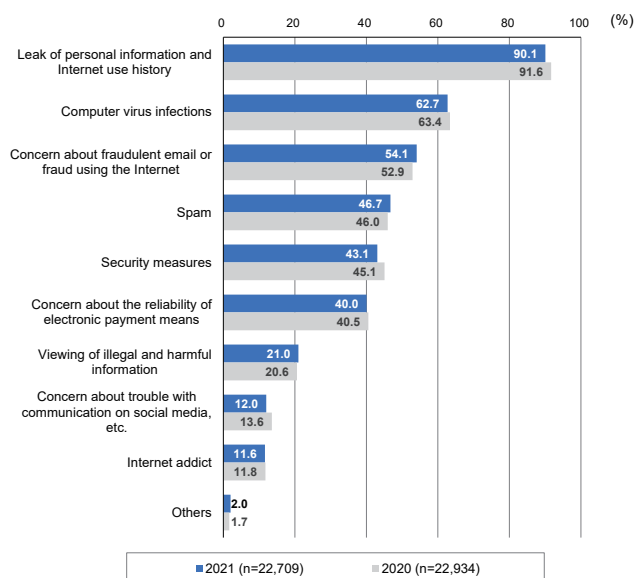


Figure 3-8-1-7 Content of the concern when using internet (multiple answers)



## 2. Trends in utilization in corporate activities

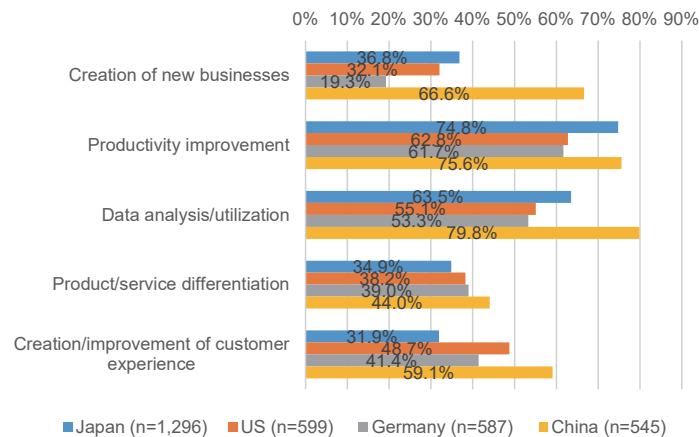
### (1) Digital Transformation (DX)<sup>95</sup>

#### i Current status of digital transformation initiatives

Ratio of enterprises advancing initiatives for DX (total of “making company-wide efforts on DX based on a company-wide strategy”, “some departments are working on DX based on a company-wide strategy” and “each de-

partment is separately working on DX”) was about 56% in Japan, which is lower than about 79% in the United States.<sup>96</sup> The top purpose of DX efforts was “productivity improvement” among Japanese enterprises at 75%, while it was “data analysis/utilization” among Chinese companies at 80% (Figure 3-8-2-2).

Figure 3-8-2-2 Purpose of digitalization (by country)



(Source) MIC (2022), "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"

#### ii Effects of digital transformation

Effects of digitalization were investigated by aspects of “Creation of new businesses”, “Productivity improvement”, “Data analysis/utilization” and “Product/service differentiation.”<sup>97</sup> In all aspects, the number of respond-

ing companies answering “more than expected” are smaller in Japan compared with the US, China and Germany, while the number of responses “effects did not come up to our expectation” of Japan is largest among four countries.

#### Related data



Effect of digitalization aimed at creation of new businesses (by country), Effect of digitalization aimed at productivity improvement (by country), Effect of digitalization aimed at data analysis/utilization (by country), Effect of digitalization aimed at product/service differentiation (by country)

Source: MIC (2022), "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"

URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-27](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-27) (Data Collection)

#### iii Challenges in promoting digital transformation

As challenges/barriers for digitalization, the percentage of Japanese enterprises answering "shortage of human resources" (67.6%) is by far larger in comparison with enterprises of the United States, China and Germany. The next is "lack of digital technology knowledge/literacy (44.8%)". Challenges/barriers related to

human resources account for a large part (Figure 3-8-2-3).

Regarding shortage of digital human resources held by enterprises (“CIO, CDO and other digitalization leaders” and “AI/data analysis experts”), the sum of “very much lacking” and “slightly lacking” is over 50% among Japanese enterprises. Overall, they are short of digital

<sup>95</sup> Here, “digital transformation” is defined as “while responding to drastic changes in external ecosystems (customers and markets), and leading transformation of the internal ecosystem (organization, culture and employees), enterprises create values and establish their competitive advantage by transforming both internet and real customer experiences through new products, services and business models taking advantage of the 3rd platform technologies (cloud, mobility, big data analytics and social). (Source) “Declaration to be the World’s Most Advanced IT Nation - Basic Plan on the Advancement of Public and Private Sector Data Utilization” (Cabinet decision on July 17, 2020) (<https://cio.go.jp/node/2413>)

<sup>96</sup> <https://www.ipa.go.jp/files/000093706.pdf>

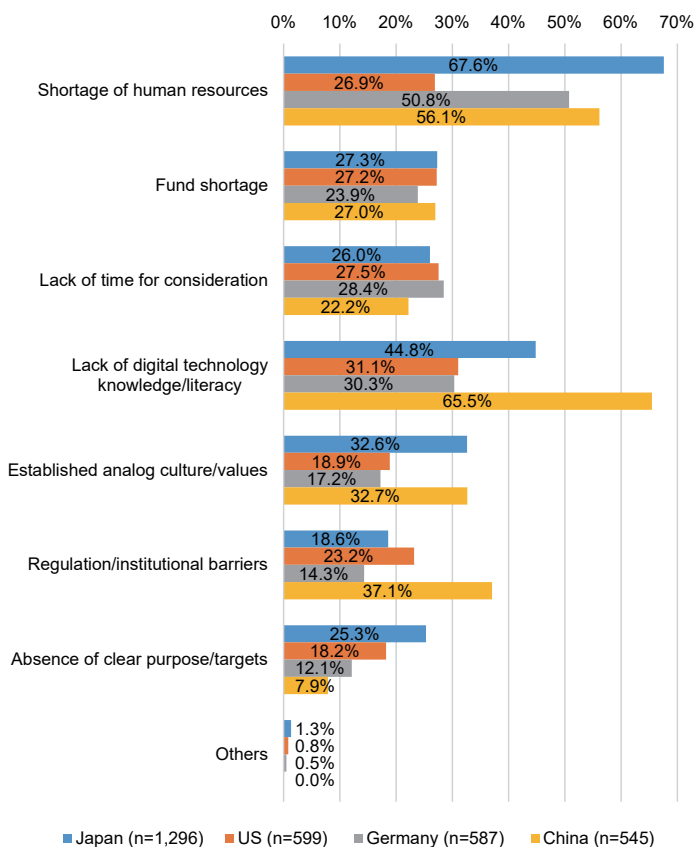
<sup>97</sup> The question is for the enterprises who chose any of the aspects as the purpose of digitalization and totaled the responses of each purpose.

human resources. In particular, “AI/data analysis experts” are “very much lacking” in more than 30% of the enterprises. The shortage is more serious in Japan compared with the US and Germany.

Regarding reasons for the shortage of digital human resources in enterprises, both “system to employ digital human resources is not yet established” and “system to develop digital human resources is not yet established”

are about 40% for the two types of digital human resources among Japanese enterprises. The survey also investigated qualitative aspects (necessary skills) of the efforts to secure digital human resources by enterprises of each country: “new and mid-term hiring” is the most common answer of US enterprises, while “reshuffling and training of existing human resources” is the most frequent among Japanese enterprises.

Figure 3-8-2-3 Challenge/barrier of digitalization (by country)



MIC (2022), "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"

Related data  
 Questionnaire survey on the state of shortage in digital human resources, reason of the shortage and efforts for securing (by country and type of digital human resources)  
 Source: MIC (2022), "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"  
 URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-35](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-35) (Data Collection)

## (2) Telework<sup>98</sup>

### i Use situation

Slightly under 60% of people in the United States and Germany, and over 70% of people in China have experienced telework, while the rate is around 30% in Japan (Figure 3-8-2-4). For reason of difficulty to implement telework, the environmental and cost side including internet connections are often cited in other countries,

while “rules/systems are not established” is the most common answer at 35.7% in Japan.

Looking at telework usage in Japan by age group, younger people are more positive about telework. Usage rate of the 20-30 age group is highest at around 35%, while the ratio of the respondents who think “it is not necessary” is lowest in this age group (Figure 3-8-2-5).

Figure 3-8-2-4 Telework use situation (by country)

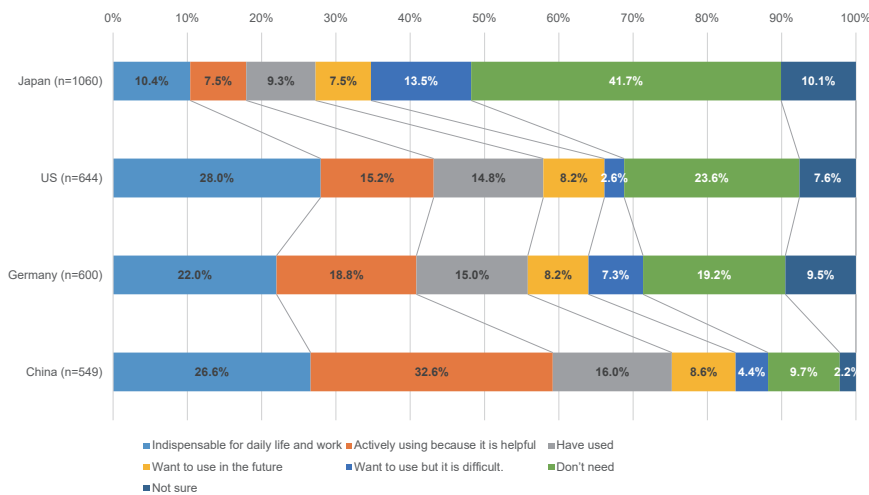
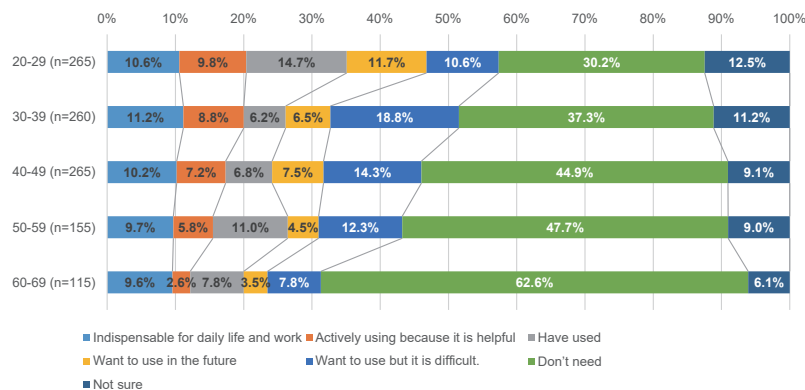


Figure 3-8-2-5 Telework use situation in Japan (by age group)



(Source) MIC (2022) "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"<sup>99</sup>



#### Related data

Questionnaire survey on reasons of difficulty to use telework (by country)

Source: MIC (2022), "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"

URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-43](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-43) (Data Collection)

### ii Trends of telework security in Japan

According to a survey conducted by MIC for the period from December 2021 to January 2022 to assess the actual state of telework security at enterprises and others, introduction of telework progressed triggered by

the COVID-19 pandemic and over 75% of the enterprises plan to continue to use telework: it has been rooted in the implementing enterprises. In introduction of telework, “security of security” remains a big challenge of implementing enterprises.<sup>100</sup>

<sup>98</sup> For policy trends related to telework at MIC, see Chapter 4, Section 6-2.

<sup>99</sup> This survey research is based on web questionnaire of residents in Japan, the US, Germany and China in March 2022 to grasp the trends in digital technology use by the citizens. For this reason, the respondents may include more experienced digital users compared with mail survey and visit survey, which requires attention.

<sup>100</sup> Survey on actual condition of telework security (FY2021): [https://www.soumu.go.jp/main\\_sosiki/cybersecurity/telework/](https://www.soumu.go.jp/main_sosiki/cybersecurity/telework/)



## Related data

Telework usage status, Challenges for introducing telework (multiple answers)

Source: Prepared from MIC "Fiscal 2021 Result of Survey on Actual Condition of Telework Security"

URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-44](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-44) (Data Collection)

### 3. Trends in regard to digital usage in administration

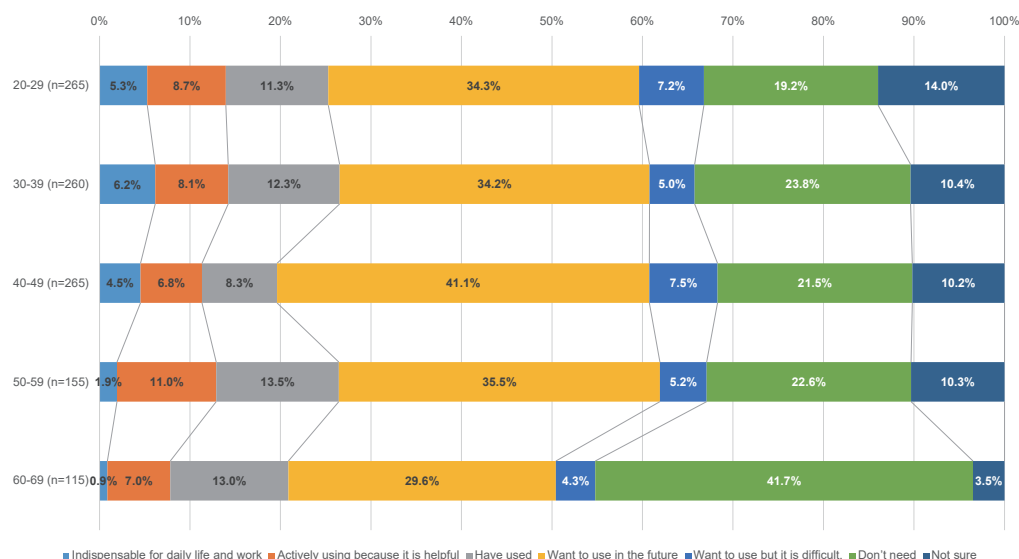
#### (1) Use situation of electronic administrative services (electronic applications, filing and notifications)

The percentage of respondents who answered that they have used electronic administrative services (electronic applications, filing or notifications) is over 60% in other countries, whereas the percentage is as low as 23.8% in Japan. Intention to use is also lower compared with other countries. Cited reasons for the difficulty of

use include insufficient speed and stability of Internet connection in foreign countries, while "security concern" is the most common answer in Japan.

By age group in Japan, use rate is from 20% to around 25% in all age groups. Intention to use is over 30% in age groups from the 20s to 50s, but the ratio of "not necessary" is large in the 60s (**Figure 3-8-3-1**).

**Figure 3-8-3-1 Use situation of electronic administrative services in Japan (by age group)**



(Source) MIC (2022) "Survey Research on R&D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"



## Related data

Questionnaire survey of Use situation of electronic administrative services (electronic applications, filing and notifications) and reasons for difficulty to use (by country)

Source: MIC (2022), "Survey Research on R&amp;D on the Latest Information and Communications Technologies and the Trends of Use of Digital Technologies in Japan and Abroad"

URL: [https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data\\_collection.pdf#3-8-47](https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-8-47) (Data Collection)

#### (2) Development status of data linkage and authentication infrastructure

##### i Individual Number Card

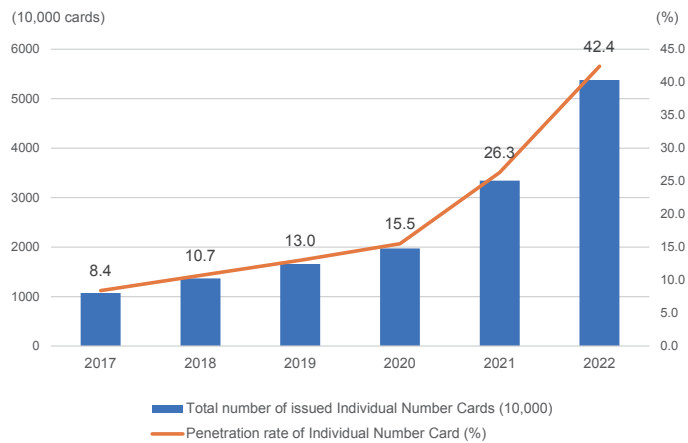
Under the acts related to digital reform<sup>101</sup> promulgated in May 19, 2021, use of the individual number system is promoted, which includes: digitalization of the affairs regarding national qualifications including medical li-

cense using individual numbers; and establishment of a system to voluntarily register an account for receipt of public money and to use the account for receipt of emergency benefits.

Penetration rate of Individual Number Card was 26.3% in March 2021, but rose to 42.4% in March 2022 (**Figure 3-8-3-2**).

<sup>101</sup> the Basic Act on the Formation of a Digital Society (Act No.35 of 2021), the Act on the Establishment of the Digital Agency (Act No.36 of 2021), the Act on the Arrangement of Related Laws for the Formation of a Digital Society (Act No.37 of 2021), the Act on Registration of Saving Account for Prompt and Sure Implementation of Public Benefits, etc. (Act No.38 of 2021), the Act on the Management, etc. of Deposit Accounts by Using Individual Numbers Based on the Intention of Depositors (Act No. 39 of 2021), and the Act on the Standardization of Local Government Information Systems (Act No. 40 of 2021)

Figure 3-8-3-2 Penetration rate of Individual Number Card



\*Number of issued card as of March of each year

(Source) Prepared from MIC, "issuance status of Individual Number Card"<sup>102</sup>

#### ii Base registry

Development of base registry<sup>103</sup> is indispensable for once-only administrative procedures and creation of Smart City and other new services. In Japan, actions have been taken according to the Base Registry Roadmap formulated in December 2020.<sup>104</sup> The roadmap sets the target year of data development at 2030 and plans to construct a system for this target within five years.

Digital Agency opened a demonstration site of "registry catalog" and "address base registry" which is a pilot

project of base registry on April 22, 2022.<sup>105</sup> As of May, 6, 2022, 7,464 data sets are registered: addressing system/residence master data set of 721 entities and event data set of 128 entities are available.

EU positions "base registry" as one of its top priority policies and sets the goal of constructing "European Data Space" that is "single market of data" in "A European strategy for data"<sup>106</sup> published in February 2020 in order to realize "once-only principle" that is one of the goals of the Tallinn Declaration in 2017.

<sup>102</sup> [https://www.soumu.go.jp/kojinbango\\_card/kofujokyo.html](https://www.soumu.go.jp/kojinbango_card/kofujokyo.html)

<sup>103</sup> Data registry refers to "a database of basic social data, such as people, corporations, land, buildings, and qualifications, that is registered and published by public organizations and referenced in various situations, and serves as the foundation of a society that ensures accuracy and currency" ([https://www.kantei.go.jp/jp/singi/it2/dgov/data\\_strategy\\_tf/dai4/siryou1-2.pdf](https://www.kantei.go.jp/jp/singi/it2/dgov/data_strategy_tf/dai4/siryou1-2.pdf)).

<sup>104</sup> [https://www.soumu.go.jp/main\\_content/000725147.pdf](https://www.soumu.go.jp/main_content/000725147.pdf)

<sup>105</sup> <https://registry-catalog.registries.digital.go.jp/dataset>

<sup>106</sup> "A European strategy for data" (European Commission, February 19, 2020) ([https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf))