Section 3
## Using ICT to Support Social Participation by Every Member of Society

This section examines the current status of telework penetration in Japan, social participation by challenged people using ICT, and ICT utilization by the elderly, and discusses some innovative initiatives.

1. Realization of a sustainable society via telework

(1) Current status of telework

In terms of the penetration of the telework paradigm, in fiscal 2009 teleworkers made up 15.3% of the total labor force, a figure more or less equal to that from the previous year (15.2%). It can be said that while the telework paradigm has penetrated to a certain extent, it has still not been adopted by the overall labor force.

Figure 1-16 The teleworker rate in Japan
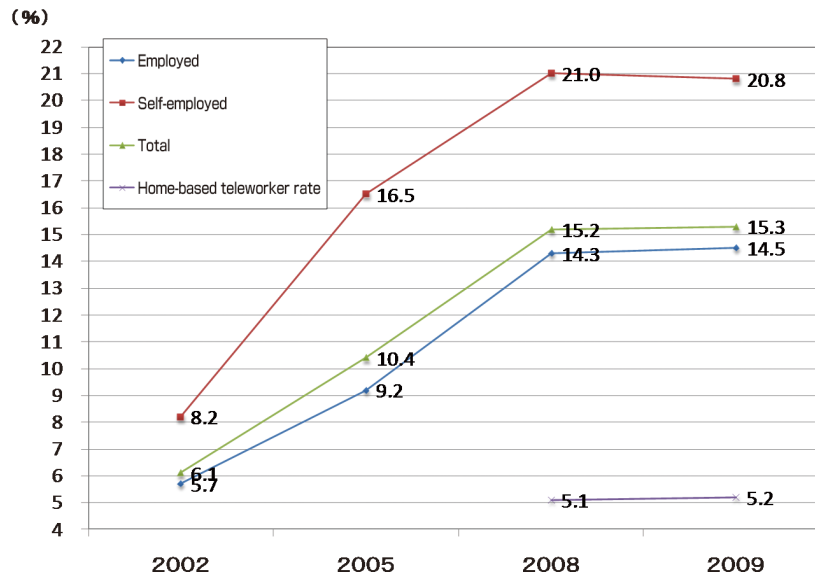
※ Teleworkers are defined as workers engaged in a regular remunerative job that involves the use of IT, and who have an IT-enabled environment outside of their regular office from which they work a total of at least eight hours per week.
※ The "teleworker rate" is the percentage of the labor force aged 15 and over that meet the above definition of a teleworker.
※ The teleworker rates in the table above are calculated by applying the Internet utilization rate found in theSurvey on ICT Utilization and the ratio of employed to self-employed persons found in the Employment Status Survey to the teleworker rate based on the sample obtained in the current survey.
※ The "home-based teleworker rate" is the percentage of workers surveyed in the fiscal 2009 Survey on the Telework Population that perform at least a small amount (one minute or more a week) of narrowly defined telework at home (not exluding in home offices).

(Source)Compiled from the Survey on the Telework Population (2009), Ministry of Land, Infrastructure, Transport and Tourism

(2) The assorted benefits of telework

  A. Reasons corporations introduce telework

The various reasons corporations introduce telework include "to reduce the amount of time workers spend commuting (51.5%)", "to boost the efficiency of routine work (boost productivity) (41.8%)", "to ensure work can continue even during states of emergency (earthquakes, flu epidemics, etc.) (39.6%)", "to improve customer satisfaction (18.7%)", "to provide employees with a more relaxed and healthful lifestyle (13.3%)" and "to provide work opportunities to the work-challenged (disabled, elderly, mothers engaged in child rearing, etc.)(13.2%)" and others (Figure 1-17).

Figure 1-17 Aim of adopting telework
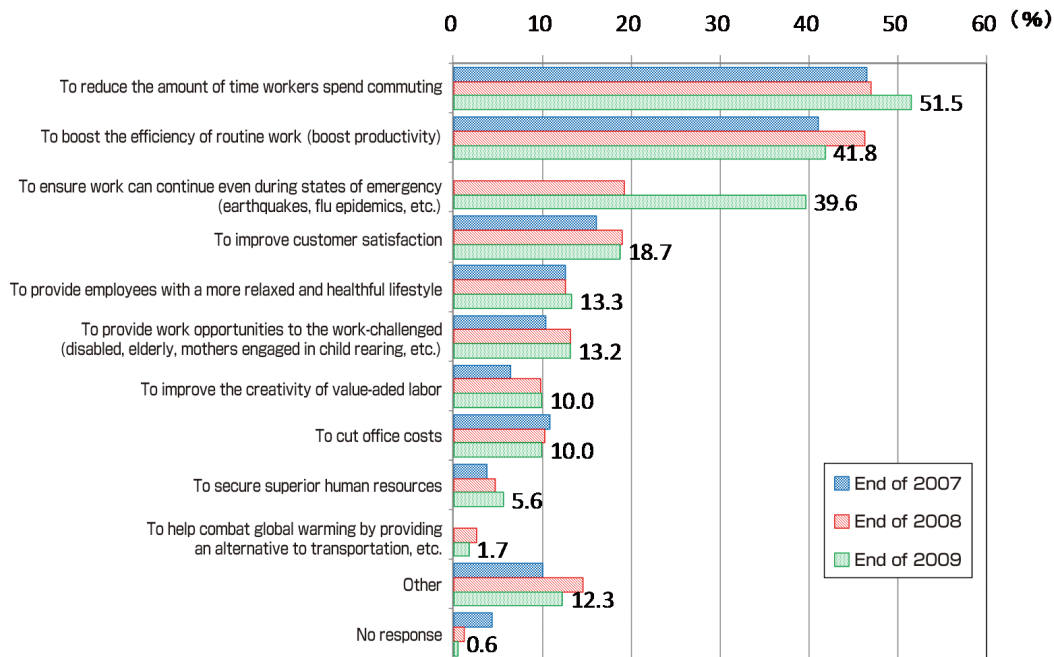
*The response "To ensure work can continue even during states of emergency" was not part of the 2007 survey

(Source) Ministry of Internal Affairs and Communications "Communications Usage Trend Survey" (2009)

B. The benefits to corporations of introducing telework

When corporations give business-objective reasons for introducing telework, these are often directly related to improvement of productivity and work efficiency. Telework not only eliminates commuting time and other non-productive time in the workplace, when it is conducted at home it also cuts down on distractions such as conversations with nearby employees and calls from inside and outside the company, allowing workers to concentrate on a single task.

In addition, some corporations boost efficiency by designating certain days on which workers focus on tasks that are suitable for telework, thus cutting down on office work days and commuting hours and reducing the total amount of overtime performed by workers. In this way, the introduction of telework provides an excellent opportunity for both employees and management to thoroughly reevaluate work contents and processes, and also to achieve both a positive work-life balance for employees and greater productivity and efficiency for the company simultaneously. Telework makes a great contribution to the building of mutually beneficial relations between companies and their employees.

(3) Toward the realization of a sustainable society

Of the 44.22 million people who were not part of the labor force in 2009, 4.71 million, or almost 10% consisted of desiring employment. Of these, approximately 1.5 million gave reasons for unemployment such as "a lack of suitable employment in the region" and "see no way to continue working due to homemaking and childrearing," and are thus considered potential workforce to grow (Figure 1-18).

Telework can help compensate for a diminishing labor force due to a low birth rate and aging society and make contributions to employment in communities throughout the country, as well as helping to address global environmental problems. It follows that telework is an indispensable element of Japan's efforts to realize a sustainable society, and should be recognized and promoted throughout Japanese society.

Figure 1-18 Breakdown of the Nonlabor Force (by reason)

	2008	2009		
	Total Persons	Total Persons	Men	Women
Nonlabor Force	4,388	4,422	1,487	2,936
Of those, the number desiring employment	454	471	126	345
No suitable employment apparent	149	163	47	116
No nearby work apparent	30	31	7	24
No work suited to one's knowledge and skills apparent	21	21	8	13
No work suited to one's desired working hours, salary, etc., apparent	56	56	11	45
No work apparent in the current economic climate or season	11	26	10	16
No other suitable work apparent	31	29	11	18
See no way to continue working due to homemaking and childrearing	115	123	1	122
Health reasons	67	62	25	38
Other	107	106	45	61

(x10,000 people)

(Source) Compiled from Ministry of Internal Affairs and Communications "Labor Force Survey"

2. Social participation by and lifestyle support for the challenged through the use of ICT

(1) Status of social participation by challenged people

A. Employment situation of the challenged

According to a survey by the Ministry of Health, Labor and Welfare of disabled people between the ages of 15 and 64, the number of disabled people working in 2006 was 826,000. Of these, the physically challenged totaled 578,000 (65.6%), the intellectually challenged totaled 187,000 (17.3%), and the mentally challenged totaled 61,000 (17.1%). As for the presence or absence of a desire to work among the unemployed disabled, 58.7% of physically challenged, 40.9% of intellectually challenged, and 62.3% of mentally challenged people had a desire to work.

Figure 1-19 Desire of disabled people to work
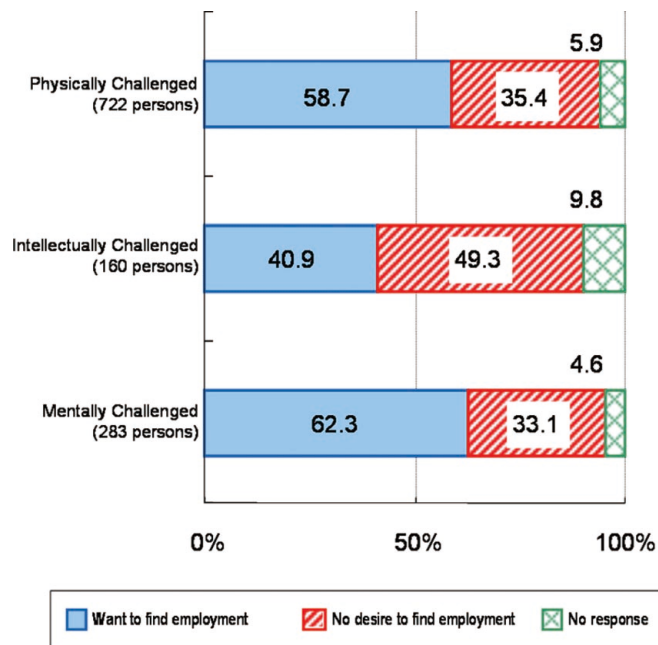
(Source)Created from the Ministry of Health, Labour and Welfare's "Employment Survey Results for the Physically Challenged, Intellectually Challenged and Mentally Challenged" (announced January 18, 2008)

B. Information in the lifestyles of the physically challenged

According to a Ministry of Health, Labour and Welfare (MHLW) survey, the most prevalent source of information for the physically challenged is "television" at 80.2%, followed by "general books, newspapers, magazines" at 61.1% and "family and friends" at 51.3%. "Website and e-mail" and "cellular phones" were given as responses by less than 10% of those surveyed, indicating that ICT tools are still not prevalent among the physically challenged as a means of obtaining information (Figure 1-20).

In terms of computer use, 16.3% of respondents use a computer "every day" or "occasionally," while of those who "rarely" or "never" use a computer, 14.7% expressed an interest in utilizing one (Figure 1-21). On the grounds that the right to communication using ICT should be enjoyed by all citizens equally, the issue of promotion of barrier-free information, including distribution of ICT products and services to the challenged, is of increasingly pressing concern.

Figure 1-20 How the physically challenged obtain information
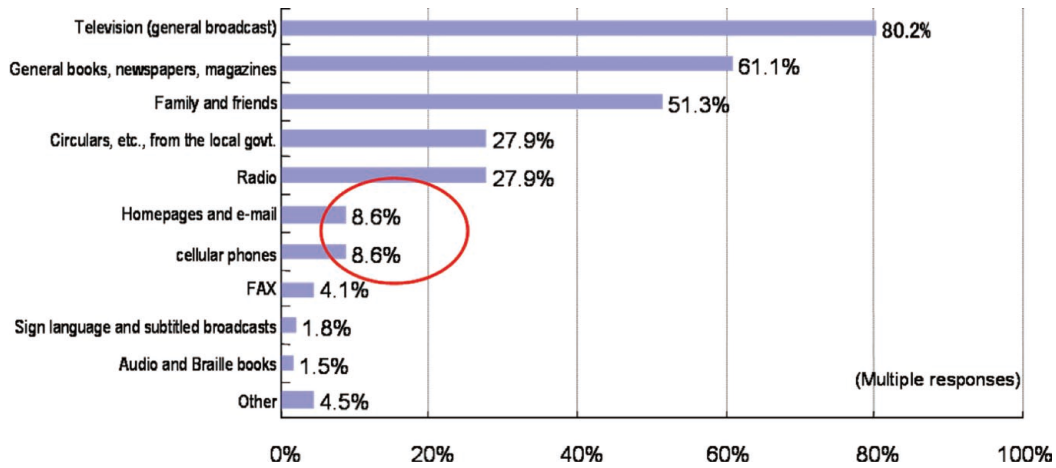
(Source) Ministry of Health, Labour and Welfare "2006 Survey of Disabled Children and Persons"

Figure 1-21 Status of PC utilization and computer nonusers desiring to use computers
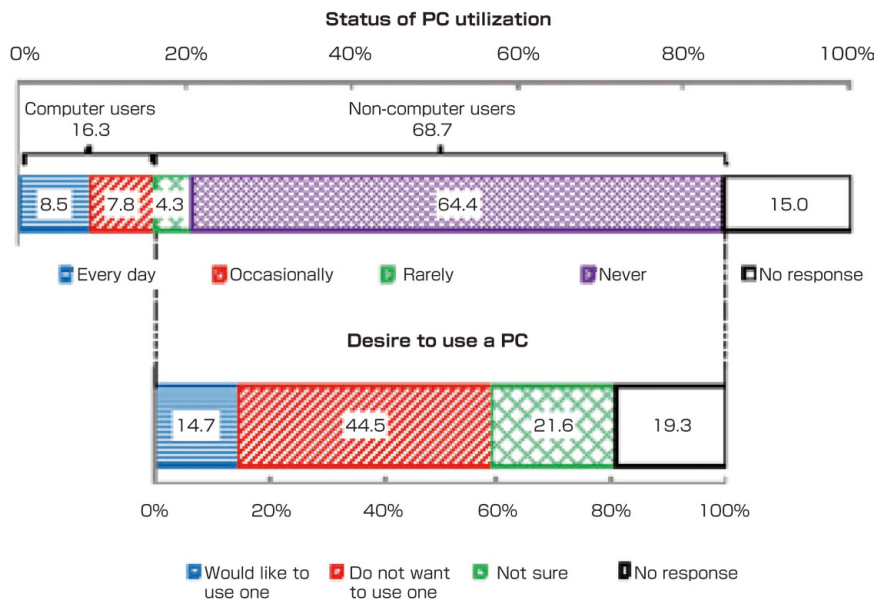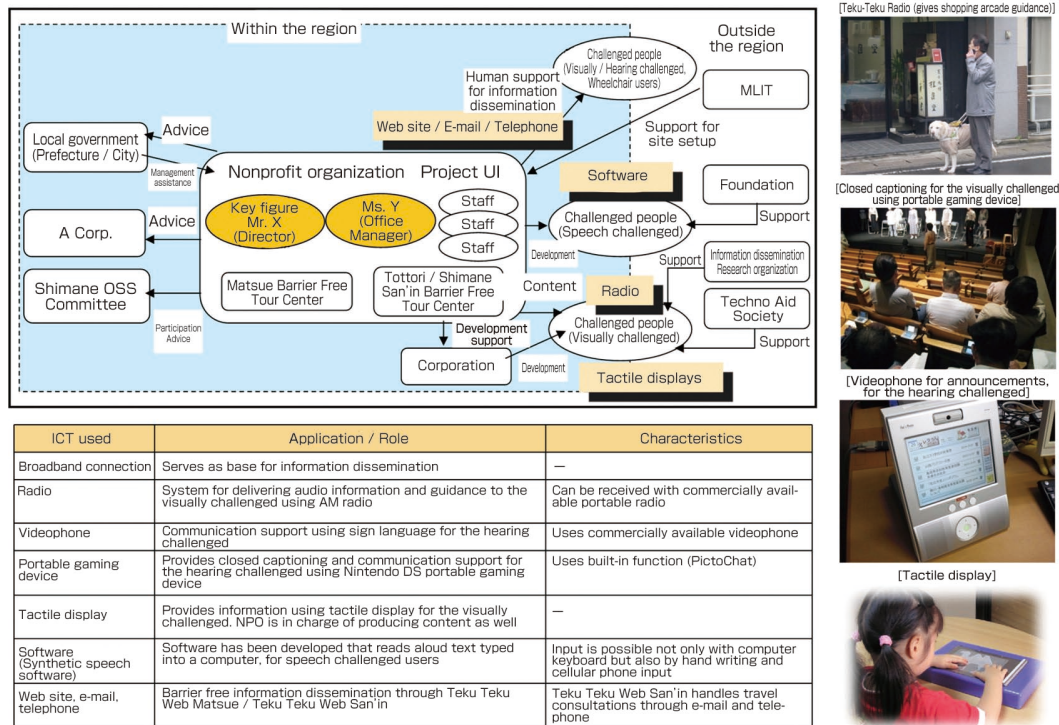

(Source) Ministry of Health, Labour and Welfare "2006 Survey of Disabled Children and Persons"

(2) Examples of social participation by and lifestyle support for the challenged through the use of ICT

Based in the city of Matsue, Shimane Prefecture, "Project UI" is a non-profit organization (NPO) engaged in promoting social participation by challenged people both inside and outside the region, digitalization of information, and development of user-friendly communities. The organization has seven full-time employees, of which two are visually challenged and one hearing challenged. The Project Director, Mr. X, is visually challenged. Based on the notion that advancing the digitalization of information requires four-way collaboration and cooperation amongst private industry, academia, government and the public, the organization is working to develop devices and systems to support the challenged using ICT. Their activities include community development and content creation such as the production of barrier free maps, along with technological development of information support devices utilizing portable gaming terminals, video phones, computers and so on, audio guidance software and tactile displays, as well as proactive dissemination of information.

Figure 1-22 Non-profit organization Project UI (Matsue, Shimane Pref.)

ICT used	Application / Role	Characteristics
Broadband connection	Serves as base for information dissemination	—
Radio	System for delivering audio information and guidance to the visually challenged using AM radio	Can be received with commercially available portable radio
Videophone	Communication support using sign language for the hearing challenged	Uses commercially available videophone
Portable gaming device	Provides closed captioning and communication support for the hearing challenged using Nintendo DS portable gaming device	Uses built-in function (PictoChat)
Tactile display	Provides information using tactile display for the visually challenged. NPO is in charge of producing content as well	—
Software (Synthetic speech software)	Software has been developed that reads aloud text typed into a computer, for speech challenged users	Input is possible not only with computer keyboard but also by hand writing and cellular phone input
Web site, e-mail, telephone	Barrier free information dissemination through Teku Teku Web Matsue / Teku Teku Web San'in	Teku Teku Web San'in handles travel consultations through e-mail and telephone

(Source) Ministry of Internal Affairs and Communications "Questionnaire of Leading-edge Examples of ICT Utilization in Japan" (2010)

3. How ICT supports lifestyle for the elderly in a variety of ways

(1) Status of the elderly

According to MIC statistics, the 65-and-over population stands at 29.01 million as of October 2009[5], indicating that Japan is a full-fledged aging society where approximately one in five people is elderly. Of these, as of the end of fiscal 2007 around 4.38 million are certified as requiring long-term care or support, a figure that keeps increasing year by year (Figure 1-23).

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[5] Refer to "PopulationEstimates" (http://www.stat.go.jp/data/jinsui/2009np/index.htm) (MIC) (current as of October 1, 2009)

**Figure 1-23 Changes in the number of elderly requiring long-term care, by care level**
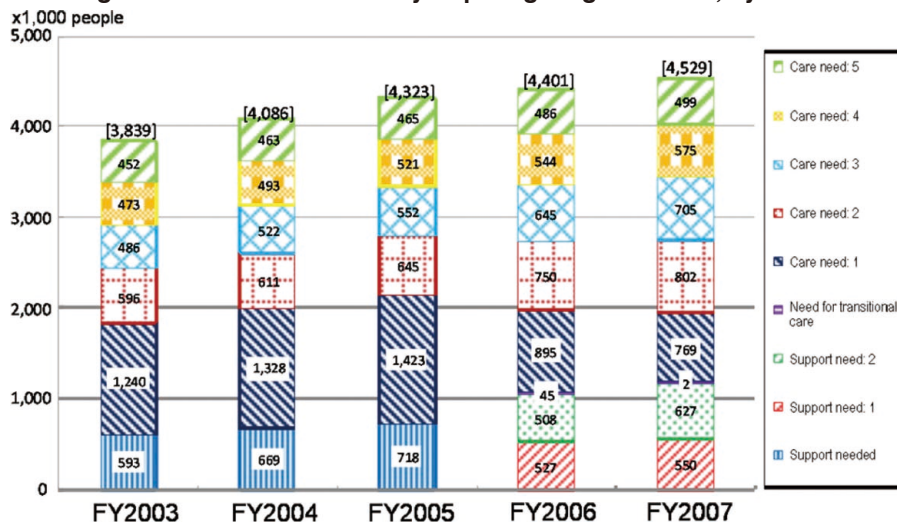
(Source)Created from the Ministry of Health, Labour and Welfare's "Annual Status Report on Long-term Care Insurance"

(2) Status of Internet utilization by the elderly and challenged facing promotion of utilization

The Internet utilization rate for elderly people was 36.9% at the end of 2009, representing a year-on-year increase particularly for those aged 65 to 69, who at 58.0% showed a jump of 20.4 percentage points over the preceding year (Figure 1-24). However, the average Internet utilization rate for all age groups was 78.0%, indicating that the usage rate among elderly people remains low compared to other age groups.

Figure 1-24 Internet usage amongst the elderly
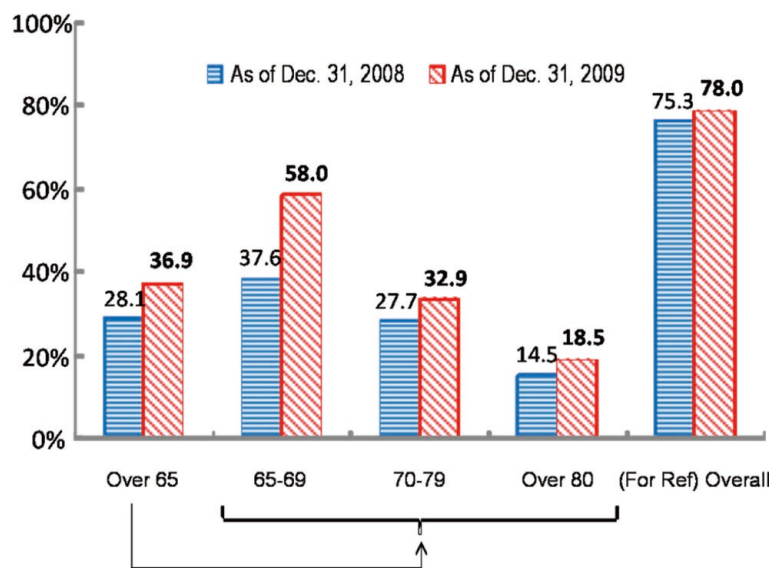
(Source) Ministry of Internal Affairs and Communications "Communications Usage Trend Survey" (2009)

ICT can provide support for elderly in a wide variety of ways, by support for active social participation by active seniors, helping them with day to day life, compensating for supplements the decreased functioning that comes with aging, and by helping them secure a means of communication and independent problem solving even when their condition necessitates support and nursing care. While individuals may choose to avoid ICT for personal reasons, it is clear that considering the widespread penetration of cellular phones and digital health devices, ICT has a vital role to play in boosting social welfare by allowing the elderly to live self-sufficient lives, maintain health preventively, and avoid the need for long-term care.