

5 Life in the 21st Century

1. Overview

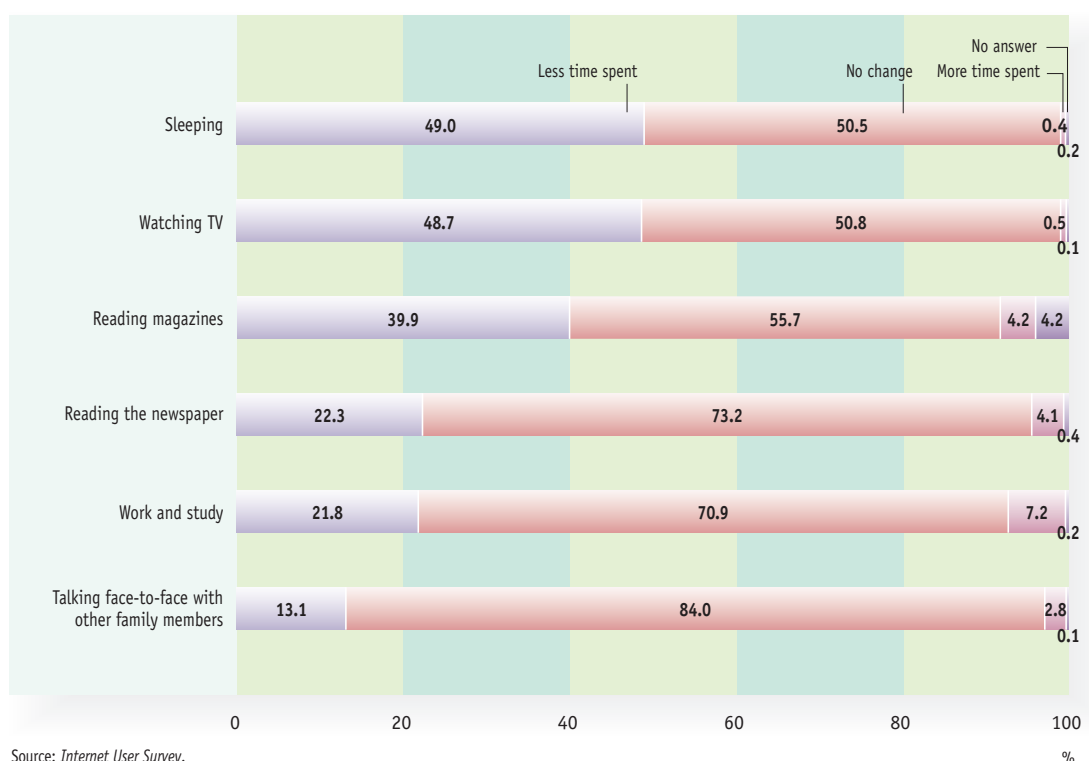
There are, of course, only 24 hours in a day, so the growing popularity of the Internet has naturally affected the amount of time people spend reading, watching TV, and in contact with other media. Indeed, almost half the respondents to a survey reported that they are spending less time in front of the television set now that they are logging on to the Internet (Exhibit 22). Additionally, while cell phones and PHS have not necessarily brought extensive changes to how people use, for example, time spent on the move in vehicles or time spent waiting, these

media have engendered changes in how people think about time in their daily lives.

2. Housing

Due to expanding use of the Internet, next-generation “information homes,” in which information communications infrastructure has an important place, have begun to be built. There are now even condominiums advertised specifically as being “Internet-connectable.” Furthermore, home appliance manufacturers are working on a concept leading to network-

Exhibit 22. Changes in Time Spent on Daily Activities as a Result of Internet Usage



able appliances, including such white goods as refrigerators and microwave ovens.

3. Hobbies and Entertainment

Several interesting new services Internet-related began being offered in 1999: CD-quality music tracks downloadable from the Internet; network game services, allowing home game handsets to be connected to the Internet; and game software download services.

4. Social Services

4.1 The Elderly

The Internet may be one way for the elderly, whose chances for social activity tend to be limited, to participate more meaningfully in society if they wish to do so—for example, by sharing their years of wisdom and experience

with younger generations and, more generally, providing them with an additional activity. *Senior Internet User Survey* found that seniors tended to become interested in the Internet on their own rather than as a result of suggestions from others. For example, the most common response to a question on the initial impetus for using the Internet was “read about it in a newspaper or magazine” (57.2%), significantly higher than “recommended by family member, acquaintance, or colleague” (32.9%), and “needed to use it at work” (25.9%) (Exhibit 23).

4.2 The Disabled

Strategically using the Internet and mobile telecommunications may provide disabled people with more opportunities to communicate with others and give them easy means of obtaining needed information. In turn, this might enable them to live more independently, participate in social activities to a greater extent

Exhibit 23. Initial Impetus behind Seniors' Use of the Internet (Multiple responses)



than at present, and generally enhance their quality of life. *Survey of the Disabled* reports that the most frequent ways in which the Internet has improved the lives of disabled people are that it is now “easier to gather and send out information” (64.4% of respondents) and that they “have more hobbies and pastimes” (61.1%) (Exhibit 24). The hearing impaired greatly appreciate info-communications media that enable them to send and receive text information. Hearing-impaired respondents to the survey noted the following ways in which their lives have changed after starting to use cell phones or PHS: “I feel secure when I go out” (60.6%); “It’s easier to converse with others by sending and receiving text” (55.8%); “These media help make up for my handicap” (48.1%) (Exhibit 25).

4.3 Nursing Care

A long-term care insurance system was instituted in Japan in April 2000. Nursing-care service providers are working hard to make the numerous office tasks, such as billing for services provided, more efficient. For example, NTT DoCoMo Chugoku has developed a Mobile Home-Helper Support System, in which cell phones and other PDAs support in the entire sequence of processes involved in home care, from production of care plans to processing applications for remuneration of nursing-care expenses.

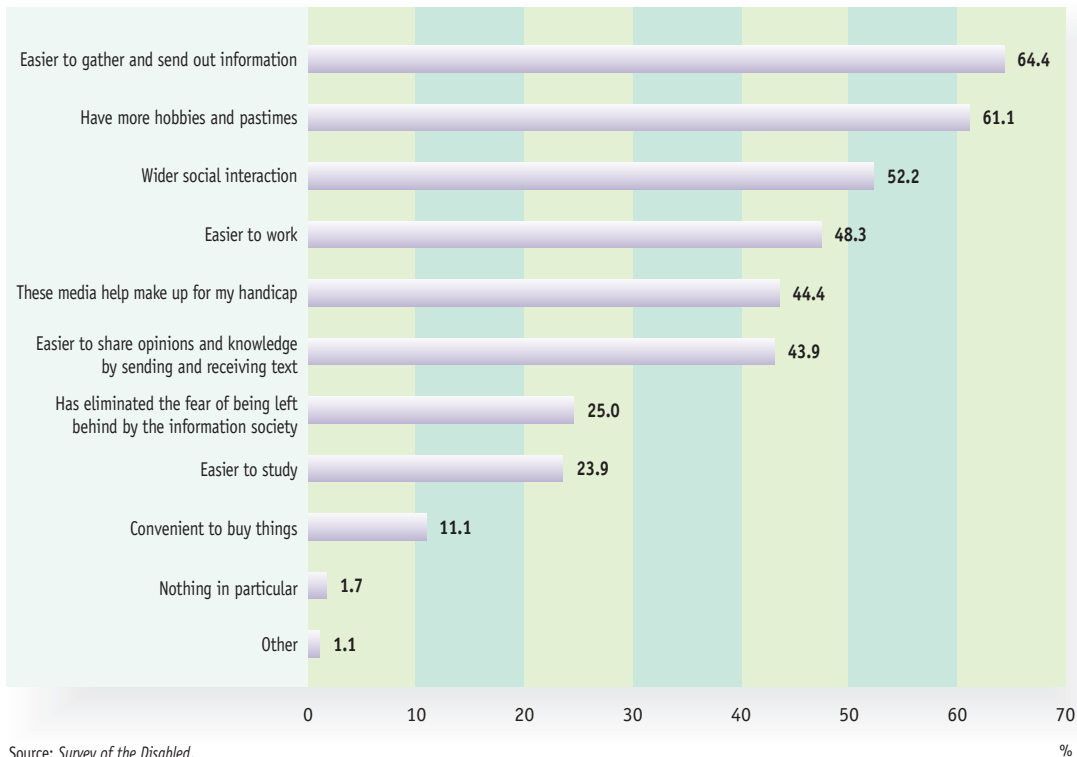
5. The Environment

In October 1998, the Shirakami Mountains World Heritage Center (Nishimeya-kan) in

northern Japan, with the assistance of NTT DoCoMo Tohoku, constructed a weather observation system using a satellite cell phone. The system employs measuring equipment and a satellite cell phone positioned on pylons; the cell phone operate by solar-generated battery power for up to 20 sunless days. Temperature, wind speed, and other data are transmitted to the center daily and serve as an important source of information on preserving the environment of the region.

6. Disaster Prevention

Tokyo Gas has developed EAGLE 24 (Emergency Administration for Gas Light Extended 24), a system providing 24-hour support for maintenance operations and helping ensure a rapid response to gas leaks and other emergencies. In July 1999 the system was installed in about 200 emergency vehicles stationed at 34 dispatch points, including seven “Gas Light 24” headquarters. EAGLE 24 uses cell phones to join terminals at the dispatch points and in the vehicles, allowing all information—from the initial report and vehicle dispatch to on-site inspection data, repair management, and final reporting—to be handled bidirectionally in real time. Moreover, digital cameras can be used with the system, allowing headquarters personnel to access visual information of the work site so that they can help find the source of the leak and give direction to workers, thus enhancing safety.

Exhibit 24. Ways in Which the Lives of Disabled People Have Improved as a Result of Using the Internet**Exhibit 25. Ways in Which the Lives of the Hearing Impaired Have Improved as a Result of Using Cell Phones or PHS**