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> " The Japanese love of small hand-held gadgets, as opposed to relatively large and immobile PCs, has been a particularly important contributing factor to the rapidly growing popularity of the mobile Internet."
>
> ***—Japanese telecommunications analyst***

> " One problem in Japan is adapting the Japanese language to the standard keyboard. Other technologies need to be developed for data entry."
>
> ***—President of a Japanese IT company***

Japan proved itself to be a champion of the Industrial Age; however, it has yet to demonstrate similar leadership in the Information Age, largely because of the current PC-centric nature of its Networked Readiness. Japan's global leadership in mobile Internet can potentially give the nation a substantial first-mover advantage if and when mobile commerce applications and business models reach a greater level of maturity. Currently, with a Networked Readiness ranking of twenty-one, Japan substantially lags behind most other industrialized countries in overall adoption and sophisticated use of ICT. The e-Japan Priority Policy Program is a comprehensive national strategy that identifies challenges in the IT and telecommunications sectors and sketches a holistic approach to overcoming them.

Several factors contribute to the slow growth of ICTs in Japan. Despite a relatively high teledensity, Japan has one of the lowest rates of Internet penetration among the major industrial nations, and even among many of its East Asian neighbors. High telecommunications fees resulting from restricted competition in the telephony sector is a significant deterrent to Internet use. The absence of an independent telecom regulator and political strife among different governmental departments regarding regulation have resulted in many cumbersome restrictions and bureaucratic procedures that prevent vibrant competition among telecommunications providers (Ranking in Effect of Telecommunications Competition: 32).

There are some infrastructure bottlenecks to Internet penetration as well. There is currently relatively limited use of high-speed network infrastructure for Internet access in Japan (Ranking in Availability of Broadband: 58), but it is increasing rapidly. Due to heavy investment in ISDN in the early 1990s, there is alleged reluctance among officials of NTT, the nation's main telecommunications operator, to encourage the growth of DSL, an alternative but much faster technology.[1] NTT is trying to promote fiber-to-the-home (FTTH) service, which is faster, though more expensive, than DSL.

As a consequence of the hindrances to using the fixed infrastructure, coupled with high mobile penetration and the well-documented Japanese proclivity for small gadgets, the mobile telephone has become a key form of Internet access in Japan. NTT's I-mode holds the majority share of the market. With an innovative pricing model based on packets of data transferred, the I-mode has become an extremely popular medium for online news, trading, games, and e-mail.

However, a limited level of Internet access through PCs has inhibited the use of Internet for more sophisticated purposes in business and government than the mobile Internet allows. B2C e-commerce is limited by a small credit card user base (Ranking in Internet-based Payment Systems: 30). However, *konbini*, the Japanese convenience store, has become a popular center for cash payments for online consumer transactions.[2] The largest B2C e-commerce segments are in the auto, real estate, PC, and travel industries. The growth of B2B e-commerce also lags behind most industrialized countries. The most intensive B2B e-commerce activity is taking place in the auto and electronics industries. Japan is also lagging behind in e-government (Ranking in e-Government micro-index: 31). Services to citizens are generally limited to interchange of administrative information, and services to businesses include online applications for certain procedures and clearances.

High Japanese income per capita and openness to new technologies should be significant factors in building an e-Japan. Under a program called Digitization of Education, the government is investing heavily in providing Internet access to schools, which already have about 100 percent PC penetration.[3] Internet kiosks are also being installed in public institutions.

Japan

Key Facts

Population	127,000,000
Rural population (% of total population) 1999	21.34 %
GDP per capita (PPP)	US$25,796
Global Competitiveness Index Ranking, 2001–2002	21
UNDP Human Development Index Ranking, 2001 (adjusted to GITR sample)	9
Main telephone lines per 100 inhabitants	58.47
Telephone faults per 100 main telephone lines	1.70
Internet hosts per 10,000 inhabitants	365.66
Personal computers per 100 inhabitants	31.52
Piracy rate	37.00 %
Percent of PCs connected to Internet	11.60 %
Internet users per host	8.33
Internet users per 100 inhabitants	30.44
Cell phone subscribers per 100 inhabitants	52.61
Average monthly cost for 20 hours of Internet access	US$15.26

	RANK
Networked Readiness Index	**21**
Network Use component index	**23**
Enabling Factors component index	**20**
Network Access	**18**
Information Infrastructure	17
Hardware, Software, and Support	19
Network Policy	**25**
Business and Economic Environment	20
ICT Policy	29
Networked Society	**17**
Networked Learning	32
ICT Opportunities	6
Social Capital	13
Networked Economy	**22**
e-Commerce	22
e-Government	31
General Infrastructure	14