

JAPANESE RELATED INTERNET SERVICES: ITS HISTORY AND VIEWING SOFTWARE

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Introduction

Over the past ten years I have experienced great changes in my work area as Japanese Studies Librarian at the University of Melbourne and Monash University. Those changes include a significant increase in client numbers and the diversification of client needs. Today more people from different backgrounds require a variety of information on Japan as a part of their main stream study or interests. However, there have not been many changes in the resources held by Japanese collections and the information provided. Library clients are still heavily dependent on printed resources, which are likely to be inadequate due to the limited financial resources, human resources and the size of the collection.

The Internet appears to be one of the most useful and powerful options for overseas Japanese collections to provide up-to-date Japanese related information, and fill the gaps between existing resources and clients' needs.

In this paper I will look at the history of the Internet in Japan, and examine available software to access Japanese-language Internet sites.

History of the Internet in Japan

The history of the Japanese Internet can be traced back to the mid 1970s, several years after the US ARPAnet (Advanced Research Projects Agency) model which began in 1969. The experiment was mainly LAN (Local Area Network) within a university, as government regulations prevented use of telephone lines for any purpose other than telephone communication. The first experimental network was called JUNET (Japanese University/UNIX Network) led by Dr. Jun Murai, starting Internet operations in 1984. The participants were Tokyo University of Engineering, Tokyo University and Keio University. The project has received no government funding since its establishment, and was operated on a volunteer basis by academics and students.

"It was a hurdle too high" (Murai, 1995) for ordinary people to use telephone lines for data transmission, an alternative communication to telephoning, and "it would be an extremely expensive and time-consuming practice to have permission from the government." The situation was improved when the Japan Telephone and Telegraph Corporation (JTTC) was privatised as NTT in April 1985, and modems were at last available.

The first international networking was the connection between the City University of New York and the Science University of Tokyo by BITNET in 1985; the following year an international link from JUNET to CSNet (Computer

Science Network) was established. The first Internet project in today's sense is the creation of the WIDE (Widely integrated and Distributed Environment) network in 1987, initiated by Dr. Murai. The University of Tokyo and the University of Engineering were first connected in 1988, following which other participants were gradually networked. Nakayama (1993) illustrates the development, status and regulation of Japanese networks, including JUNET, HEPNET-J, TISN, JAIN, JOIN and SINET which connect to WIDE.

It was not until autumn 1993 that the commercial Internet arrived on the Japanese market. InterCon International KK (IICK), a US-based company, provided the first primary commercial Internet connection and TWICS was the IICK's first customer as a secondary service provider.

Auckerman (1994) explains the reasons for the slow action: the attitude of participants involved; sensational media coverage of the commercial Internet, 'control of information' in the early days, a lack of commitment by service providers, and the tight control maintained by academics who pioneered the Internet in Japan. However Auckerman continues that there was a highly regulated communication structure in Japan, and quotes a businessman who said, "Japan is very much a controlled society — information is controlled." Murai also shows the differences between the Internet in U.S., which has been developed under a free, open society with strong individualism, and the Internet in Asian and European countries. In Asian and European countries, knowledge and information systems were traditionally accumulated under powerful authorities and control of governing bodies (1995, p.11-12).

There were other factors which contributed to the delay of the launch of the commercial Internet in Japan. It was not until 1993 when Microsoft DOS/V was introduced, that Japanese language software could operate on any hardware. It led to a crash of computer prices: until then the hardware market was dominated by NEC. Computers became more accessible to ordinary people. Nifty-serve connected to the Internet in 1992, which increased the Japanese Internet population drastically, as Nifty-serve was then the second biggest data network with 700,000 subscribers (one million in 1996). Nifty-Serve had a mechanism of on-line shopping in the system, and Microsoft DOS/V gave the U.S. retailers direct marketing over the Internet (Lemos, 1994)

In late 1994 the Internet browser Netscape navigator was launched by Netscape Communications Corporation. Its Japanese subsidiary was announced in March 1995.

Current status

The January 1996 InterNIC (the body that governs domain names) survey shows the growth rate of the Internet in six countries. The growth rate in Japan surpasses the growth of any of the top five countries, although the total domain numbers are far less than these countries (Figure 1).

	<u>January 1996</u>	<u>June 1995</u>	<u>Increase</u>
Global	9472224	6641541	43%
United States	5788435	4168648	36%
Germany	452997	350707	29%
United Kingdom	451750	291258	55%
Canada	372891	262644	42%
Australia	309562	207426	49%
Japan	269327	159776	69%

(Figure 1) source: *Computing Japan*, no. 21 April 1995, p.20

Internet articles were checked appearing in the Nihon Keizai Shinbun (Nikkei), a leading daily economic newspaper nationally distributed in Japan. Figure 2 is the result of how many times the heading "Internet" appeared in the indexes of the monthly accumulated edition of Nihon Keizai Shinbun over two years from July 1994. The numbers of the articles jumped in August 1995, again doubled in September to 42. The early articles dealt with Internet overseas news, while recent articles were more on local Internet developments. Some articles show that the Internet is changing the traditional value and culture of Japanese community.

	<u>1994</u>	<u>1995</u>	<u>1996</u>
January		2	44
February		2	48
March		1	55
April		0	55
May		4	46
June		7	35
July	2	4	
August	0	24	
September	1	42	
October	0	47	
November	1	48	
December	3	48	

(Figure 2) Source : Nihon Keizai Shinbun Shukusatsuban

In the private sector, Nikkei conducted a "Internet usage survey" in March; nearly 50 percent of respondent leading Japanese companies use the Internet to a certain extent. The introduction of the e-mail system may change the traditional corporate culture of Japan (Nikkei: April 11th 1996).

Some government bodies are actively involved in the Internet; many ministries run homepages and local governments are trying to undertake their resident administrative procedures over the Internet with the cooperation of universities and private companies (Nikkei: April 23rd 1996). Banks have started developing an electronic transaction system on the Internet (Nikkei: March 29th 1996).

Software to access the Internet in Japanese language

One year after the launch of the Netscape Navigator Yahoo! Japan began its services on April 1, 1996. The homepage note states that it is necessary to have a Web browser to view Japanese characters. The page also provides links to language software according to the users' environment. This applies to those who view the Internet in Japanese language outside Japan, and has been the long-standing issue since the publication of library related CD-ROMs from 1992. (It is to be noted that at Monash University the standard workstation is 486 IBM compatible running Windows 3.1.)

There were several ways to tackle the problems:

1. to purchase hardware which only works in a Japanese environment
2. to install DOS/V and Japanese Windows in a local machine, use the computer as Japanese only or install English windows in a different drive
3. to install a software which provides a Japanese-language environment, such as Win/V, 4.
4. to install a software such as TwinBridge, UnionWay on English Windows.

The solution taken by the user depends on needs and cost. Many Japanese organisations chose the first option, because their needs were predominantly in Japanese language. They were aware that they received no technical support. The second option was more economical and received hardware support, but all software had to be the Japanese version. This option also required the user to have more comprehensive computer knowledge in the event that something went wrong. Nishimoto (1994) recommends the third option, because the advantage of installing Win/V is suitable for users who are required to run a standard environment which could be maintained by network administrators. The fourth option is quite simple and economical. It does not require any installation: users can only copy the files. Options three and four are the most advisable in the Australia environment.

Software to view Japanese language sites

1. Macintosh users : the Japanese Language Kit
2. Windows 3.1 users : Win/V, Shodouka, TwinBridge, Accent or UnionWay
3. Windows 95 and NT users : UnionWay, NJWIN10.zip (Auckerman, 1996), Accent
4. Unix users : Web browser that supports Japanese characters and install fonts

5. If using Netscape 2.0, turn on Japanese encoding under the Options menu.

Demo software for items 1-4, except NJWIN10.zip and Shodouka, is available from: <http://www.yahoo.com/docs/info/bridge.htm>

NJWIN10.zip dhareware is available from: <http://www.njstar.com.au/njwin/>
Shodouka and Pacific Software Publishng (KanjiWORD, KanjiKIT, Kantaro and Kanakun) can be linked from: <http://rdt.monash.edu.au/~jwb/japanese.html>

Evaluation

The standard workstation is 486 IBM compatible and runs Windows 3.1 in Monash University.

Win/V is installed in my workstation. The cost is approximately \$129 and installed by our IT person. Input methods are the same as those used in Japan, and characters are organised to suit users proficient in the Japanese language. Under the Japanese environment, it displays the Japanese Internet pages, and enables one to send e-mail in Japanese over the mail function of the Internet. It does not permit e-mail messages to be read in Pegasus Mail, but the latest version of Netscape 2.1 has the capability to view Japanese mail. It allows one to search in Japanese language, but it is necessary to find the specific language code for the particular search engine. Limitations of Win/V are that no support is readily available, there are occasional code changes during the search, and at the moment Windows 95 is not supported.

TwinBridge costs approximately \$430 per user, and is easy to install and operate. I interviewed one of its users. The performance was quite satisfactory. The input method was similar to Japanese, but the character organisation was different from the logic the operator uses and requires more key strokes, which is quite awkward for the users. Characters might be displayed as garbage characters when transferring the files, or sending fax or writing documents.

UnionWay offers a 45-day demonstration software, which can be downloaded and installed. The installation is easy and the standard cost is only \$49. With the cooperation of the lecturer, I organised an Internet class for the Japanese Communication students. The nine students and one lecturer used UnionWay to browse the Internet. Some of the limitations were that the input system was different from that with which they were familiar and one essential letter 'a' was missing. On many occasions unrecognisable garbage characters displayed. The reason could be the different coding or simply that this software does not support some characters. It is only good for viewing, but not recommended for serious searching or creating homepages.

Shodouka (<http://www.lfw.org/shdouka/>) enables users to view Japanese language pages without installing any software. It displays the Japanese language pages as graphic images so that users can print what is displayed on the screen. It is necessary to know the exact URL to visit using the Shodouka site, as it does not allow the input.

Accent is a multilingual language software costing \$99, and is for and viewing only. It is necessary to change the code according to what that particular site uses, which the interviewee found awkward. No word processing facility is available.

Conclusion

UnionWAYS and TwinBridge are the software developed to cater exclusively for other character based languages like Chinese and Korean. I have used other similar software which serves three languages. I believe that the users will receive better results if a dedicated software like Win/V is used, because the input system is familiar and works with the logic of that particular language. The cost will also be cheaper because the developer is only handling one product. When using the full function of the Internet, it is imperative to have an efficient and effective software language not only to perform well but also to save time and cost of the communications.

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- "Intanetto de tetsuzuki = Resident registration on the Internet" (1996). Morning ed. *Nihon Keizai Shinbun*, Apr. 23, p.1
- "Intanetto katsuyo o = Utilise the Internet : connect to all schools" (1996). Morning ed. *Nihon Keizai Shinbun*, May 18, p.38
- "Intanetto sho-torihiki = transaction on the Internet : four city banks to operate soon" (1996). Morning ed. *Nihon Keizai Shinbun*, Mar. 29, p.1
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The whole Internet / Ed Krol. Sebastopol, CA : O.A.E. Reilly & Associates, 1992.

Appendix A

Business Information

Asian Business Watch : <http://shrine.cyber.ad.jp/~dwhit>

Daiwa Institute of Research Ltd. Provides share-price information:

<http://www.dir.co.jp/Marketingo/MarketNews-s.html>

The Money Web, basic information on economics for housewives and students:

<http://www.emic.co.jp/money/>

Nagoya Stock Exchange Home page : <http://www.iinet.or.jp/nse-jp/j-home.htm>

Nomura Securities with fees: <http://www2.nri.co.jp:8080>

Job vacancies

Digital B-ing by Recruit : <http://job.recruit.co.jp/DB>

Employment opportunities through ICOMM Recruiting :

The Inter lists the companies in alphabetical order :

<http://www.upunet.or.jp/UPU/inter.html#MENU>

Toryumon, by Human Capital Research Centre, has aptitude test :

<http://toryumon.or.jp/>

Journals

Computing Japan with fee : <http://www.gol.com/cj/> or

<http://www2.twics.com/cj/twicshome.html>

MacWEEK Online JAPAN for Mac lovers

:<http://www.softbank.co.jp/macweek/>

Sapporo Journal in English : <http://www.j-mac.co.jp/SJ/>

Shukan Post in English : <http://www.weeklypost.com/>

teleparc, culture and entertainment magazine from Tokyo, updated every day:

<http://teleparc.infoweb.or.jp/ja/index.html>

Language

Omron Introduction of Advanced Systems Research Center, multilingual processing and Wnn6 Experience : <http://www.wg.omron.co.jp/>

Translation service for nearly all languages by e-mail, Transnet:

<http://www.tni.co.jp/tn/cyber-trans/cyber-trans.html>

Translation service English-Japanese and Japanese-English:

<http://www.ifnet.or.jp/~ate30/jindex.html>

Magazines in Japan provides the covers and indexes of the latest issues of Martial arts from Japan : <http://www.yk.rim.or.jp/~taroaoki/>
Medical Information Cyber Dortor Link: from <http://www.dik.co.ja/>
Multimedia Law Homepage :

<http://www.threewev.ad.jp/~kondolaw/multimedialaw/>

Newsbytes Pacifica provides the latest news headlines in Japanese, daily update :

<http://www.islandtel.com/newsbytes/sokuhou/sokuhou.html>

Science and technology from JICST : <http://www.jicst.go.jp/>

Psychiatric clinic with FAQ: <http://www.habi.or.jp/site/>

Keihin Kyuko with photographs of trains :

<http://www.bekkoame.or.jp/~umehiro/>

Railways Japan : <http://www.rtri.or.jp/indexj.html>

Library Information in Japan

Jump to Library! In Japan OPAC list :

<http://ss.cc.affrc.go.jp/ric/opac/opac.html>

Links to libraries in Japan, opacs and discussion list on Library :

<http://www.nichigai.co.jp/library/index.html>

Literature

Homepage of a poet, Shiroya Suzuki : <http://www.catnet.or.jp/srys>

Homepage of a mystery writer, Abiko Takemaru :

<http://web.kyoto.or.jp/people/abiko/index.html>

Newspapers

Asahi Shinbun : <http://www.asahi.com/>

Chunichi Shinbun : <http://www.chunichi.co.jp/>

Kobe shinbun : <http://www.meshnet.or.jp/ibn/kobshimbun/index-j.html>

Kyodo News, updates every 15 minutes!?: <http://www.kyodo.co.jp/>

Kyoto shinbun : <http://www.kyoto-np.co.jp/>

Mainichi Shinbun : <http://www.mainichi.co.jp/index.html/>

Nikkei Hyper Press is the Multi-media digital newspaper, until September 30th

<http://.nikkei.co.jp/nhp/>

Nikkei Net : <http://www.nikkei.co.jp/enews>

Nikkei 'X' for young : <http://www.nikkei.co.jp/nikkei-x>

Nishinippon shinbun : <http://www.coara.or.jp/~ns-press/nishinippon.html>

Sankei Shinbun : <http://www.iinet.or.jp/sankei/>

Sanyo Shinbun : <http://www1.meshnet.or.jp/sanyo-np/>

Sports Nippon, sports and stars:

<http://www.jamjam.mainichi.co.jp/frame/suponichi.html>

Tokyo Shinbun home Page : <http://www.tokyo-np.co.jp/>

Yamanashi Nichinichi shinbun :

<http://www.sannichi-ybs.co.jp/News/miljan.html>

Yomiuri On-Line : <http://www.yomiuri.co.jp/>

Newspapers in English

Chubu Weekly : <http://www.cdc.toppan.co.jp/CW/>