

## The Japanese Digital World in 1999 (2)

# Ideals and Reality

By Iwasaki Ieo

In Part 1 of this series I examined the state of digitalization in Japan from an overall perspective, considering some problems along the way. In Part 2, I will address the current state of digital business in Japan and its development by way of some actual examples of entrepreneurs and of business development projects implemented by local governments.

### Japan's Entrepreneurial Environment

As pointed out in Part 1, Japan's entrepreneurial environment is far different from those of European countries and the United States. In comparison with the U.S. in particular, a country whose capital procurement system, motivation, and business culture are well-suited to entrepreneurship, it is undeniable that would-be entrepreneurs in Japan face significant obstacles. To be specific, systems and organizations necessary for the incubation of the digital business sector are gradually being developed, and deregulation and the creation of a conducive business environment are slowly progressing, but these are still far from adequate. At present, however, the greatest problem facing the development of digital business in Japan is the lack of entrepreneurial motivation.

In the latter half of the 1980's Japan entered a bubble economy, and entrepreneurship began to hold more appeal. This period saw a large number of new business start-ups, but the majority of these were so-called in-house entrepreneurial ventures. These ventures into new fields by existing enterprises were for the most part confined to the leisure and service sectors. This had the effect of spurring the bubble economy even further; when the bubble finally burst, however, many of these new business ventures failed to survive.

While the Japanese economy surged on the artificial high of the bubble economy, across the Pacific the Americans were busy raising up a new generation of entrepreneurs, both in the West Coast's Silicon Valley and in the East Coast's Silicon Alley.

Naturally, as the 21st century began to draw near the Japanese were also drawing up grand plans for the creation of a new advanced information infrastructure, and steadily laying out preparations for their implementation. In particular, the plan for the creation of a fiber-optic telecommunications infrastructure announced in the latter half of the 1980's was by no means overshadowed by the plans of the United States, and in fact that plan is steadily being advanced as we head into the 21st century. As was pointed out in Part 1, as Japan enters the threshold of the 21st century it faces the twin challenges of globalization and the creation of a digital network. The enormity of these challenges rival the coming of U.S. Admiral Perry's "Black Ships" to Japanese shores in 1853, the shock of which heralded the end of the Tokugawa Shogunate and the entry of Japan into the modern era. The Japanese are counting on their technical and engineering prowess to carry them through these challenges, as well as the entrepreneurial spirit of the Japanese people. A major cause of the high expectations the Japanese place on these qualities is the fact that both have been well-cultivated and exhibited to a high degree since the Meiji restoration of 1868, and during Japan's post-war economic recovery and rapid economic growth. The case could be made that Japan's economic development following the end of World War II in particular was largely made possible by the technical ability

and entrepreneurial spirit of Japan's small and medium enterprises.

As the 21st century approaches, the question is whether any new company is growing into the second or third Honda or Sony in the push toward digitalization. Here we shall examine the current state of Japan's digitalization and its possibilities for the future, and in addition search for a Japanese entrepreneurial model for the digital age.

### The Development of AD-Guard, the First Filtering Software Developed in Japan

Entrepreneurs in Japan's business world aiming to become the next Bill Gates or Mark Andreesen are certainly not aided by the current Japanese business climate. A new movement is emerging in this business climate, however, where the entrepreneurs are not the younger generation of people in their twenties and thirties, but rather Japan's "baby boomers," people in their forties and fifties, who are the targets of so-called "restructuring," popularly known as "downsizing" in the United States.

Mr. Kinzo Aiba, president of IQS Ltd. (headquartered in Chuo Ward, Tokyo) is one of these new entrepreneurs. IQS Ltd. developed AD-Guard, the world's first server-based filtering software, jointly with the Dentsu Group's Dentsu TEC and with the support of the IPA, an auxiliary organization of the Ministry of International Trade and Industry. IQS is working to market this software not only in Japan but worldwide, including the United States.

AD-Guard may well be the first Japanese software for the general PC market to be sold in the United States in a field other than the computer game software market which Japanese



The first server-based filtering software in Japan

enterprises have dominated. The Japanese have developed a wide array of software other than computer games, including Ichitaro, a Japanese-language word-processing program. Until now, however, virtually all software developed in Japan has been designed for Japanese operating systems, and very little has been marketed overseas.

Mr. Aiba was an average Japanese businessman, who had never even touched a computer until past the age of 50. Then in 1996, Mr. Aiba dropped out of the corporate rat-race and started up an Internet-based mail-order sales business. After buying his first personal computer, Mr. Aiba set up an online-shopping site on his own. He attempted to sell health foods and English language learning materials on the site he had toiled to create, but at first his site received almost no visitors. Awash in a sea of unsold stock literally heaped in piles covering the floors of his office, Mr. Aiba was in an extremely precarious position.

Then one day, on the advice of a consultant Mr. Aiba added X-rated videos to his product line. As a result access to his web site began to soar, in no time reaching over 100,000 hits per day. Needless to say, not only his videos but all his products were flying off the shelves. Mr. Aiba, however, who had received a degree in education, was troubled by the turn his business had taken. Then when he tried researching X-rated websites, he realized that a deluge of harmful

content was flowing unchecked over the Internet. While it is a fact that he himself had once successfully employed adult videos to increase access to his site, Mr. Aiba was aghast at the sheer volume of harmful content available on the Internet. At the time, the concept of filtering was not well-known in Japan, but Mr. Aiba believed that there must be a huge potential market for software which would block harmful content. He then

found a filtering program called CYBERSitter, developed by U.S.-based Solid Oak Inc., by means of an Internet search.

Mr. Aiba rushed to the United States and signed a contract with Solid Oak Inc. to develop a Japanese version of CYBERSitter. The Japanese version was completed the following year, in 1997. At this time some American filtering software had already been localized for the Japanese market and was being sold in Japan, but the CYBERSitter's filtering methods differed from those of the other software programs, making it more effective at detecting harmful content. In 1997, however, although harmful content and Internet crime were being taken up by the media, people in Japan had still not reached the stage of seriously considering the purchase of filtering software. After the product was launched sales of CYBERSitter gradually increased, but it just could not seem to make a big breakthrough in the market. With that, Mr. Aiba began to think of his next product: filtering software developed not for individual PCs, but for servers. That is also when he decided to develop Japan's first filtering software for servers, this time on his own. There had as yet been no effort to develop a server version based on the English version of CYBERSitter.

Mr. Aiba, thinking that in the future there would be demand for server-based filtering software by businesses and educational institutions, in 1998

began developing a filtering program for servers with the cooperation of Dentsu TEC and the IPA, an auxiliary organization of the Ministry of International Trade and Industry. A propitious wind was starting to blow. Elementary and Junior High School educational institutions were rapidly being hooked up to the Internet with the strong backing of the Japanese government, and the detrimental effects of Internet crime and harmful content on Japan's youth were rapidly entering the social consciousness. Moreover, businesses were steadily hooking up to the Internet and creating intranets, and illicit use of these networks including their use as a means of sexual harassment was becoming a grave problem.

AD-Guard, the first server-based filtering software in Japan, was completed at the end of 1998. The software first went on sale at the beginning of 1999, and at the same time sales of the Japanese version of CYBERSitter began to take off. Moreover, co-developer Dentsu TEC is a major member of the Dentsu Group, the world's largest PR firm, and its stock is exclusively listed within the group. When the development of AD-Guard was announced, the value of Dentsu TEC's stock rose by 30%.

English and LINUX versions have already been developed, and Mr. Aiba is now preparing to market AD-Guard overseas.

#### The Development of ECOT, the World's First Barrier-Free Software

ECOT, the world's first barrier-free interactive written communication software, was developed by Televoice Corporation (headquartered in Shibuya Ward, Tokyo). The president of Televoice Corp. is Mr. Sam Aoki, another baby boomer. ECOT software allows handwritten sentences and maps written on an LCD screen to be transmitted in real time via a cordless telephone to an LCD screen. This software makes communication possible between the hearing impaired, or between a hearing person

**ECOT** Electronic Pen Communications Device  
Enhanced Communication On the Telephone

Connecting two ECOT units over telephone lines allows people to converse by exchanging handwritten messages, text, pictures and graphics.

**FAX SEND/RECEIVE NEW!**

As a communication tool for the deaf, ECOT qualifies as a daily living benefit. (JAPAN ONLY)

*ECOT is the world's only written-communication software*

and a hearing-impaired person.

This written communication software can be used not only for written communication over the telephone, but words written using this software can also be sent to the other party's fax machine. Moreover, if the parties are directly connected by a serial cable, they can exchange written communication on the spot. The unit went to market in November 1998 with the technical cooperation of NTT Docomo, which set the industry standard for written communication software with Mobile Gear for DoCoMo's Written Communication Mobile. Furthermore, this mobile tool has been recognized by the Ministry of Health and Welfare as eligible under the "supply of communication devices for the hearing impaired as an aid to daily living" program (a system whereby national and local governments defray the cost of these products to the consumer), and hearing-impaired persons with a certified disability were given ECOT devices at a defrayed cost. Under Mr. Aoki, Televoice began development of this software in 1995, but according to him the product was beset by a series of obstacles, including the problem of developing interactivity, and for a time he thought of abandoning the project. The software was successfully developed one year later, in 1996. The

successful completion of the project was triggered by an encounter with a French programmer.

As of April 1999 there were slightly less than 3,000 total users of ECOT as a communications tool, and the device is starting to earn a favorable reputation for its ease of use in unexpected circles, namely the unexpected development of ECOT as a business communications tool. According to Mr. Aoki, "when a certain company's management division ordered a large number of ECOTs at once, I asked them what they planned on using them for. Their response was that they were to be used at conferences and shareholders' meetings. According to this company, once these meetings start it is impossible to discuss the proceedings and other matters privately, but with ECOT it is possible to consult unobtrusively under the table." Many think that in the future even more business uses will be found for ECOT.

According to Mr. Aoki, as of 1999 ECOT is the world's only written-communication software, and his company has recently applied for a patent for a function allowing real-time spoken and written communication to be conducted simultaneously.

### A New Japanese Entrepreneurial Model

Some of the common points between the two examples of entrepreneurial successes shown above are that in both cases the entrepreneur was a so-called "baby boomer" in his early fifties, both entered the digital field from other business sectors, and did not necessarily launch their ventures with ideal capital situations. The greatest point these two cases have in common, however, is the strong entrepreneurial spirit, perseverance, and sense of curiosity held by both Mr. Aiba and Mr. Aoki. Naturally even in Japan most successful digital businesses, such as Softbank and ASCII, are founded by entrepreneurs in their twenties, thirties and early

forties, with businesses started by entrepreneurs in their late forties and fifties forming a decided minority. Moreover, it is a fact that most personal computers and mobile devices are used by the relatively younger age groups consisting of people in their twenties and thirties. Also, the products of Japan's game software companies, which have dominated the industry, are largely developed by young programmers in their twenties and thirties. With the rapid popularization of the personal computer, however, Japan's current level of over 15 million Internet users is starting to form a critical mass in Japan's digital market, and this user base is rapidly expanding, with an increasing number of elementary and junior high school, housewives, and elderly users. This situation has given rise to a new type of entrepreneur in Japan's digital business world typified by Messrs. Aiba and Aoki.

Changing the course slightly, I shall next examine some actual cases of business development in the public sector making use of the Internet.

### Real-time Interactive Information Services Provided by a Local Government (Example of Web Marketing by the Public Sector)

In the latter part of November 1998, the Hokkaido Tourist Board began a project called A Study of Real-time Interactive Information Services (Travel Concierges) Using the Internet (URL: <http://www.aaapc.co.jp/concierge>). The goal of this project is to take advantage of the interactivity of the Internet to provide real-time information services; the impetus behind its launching was a recognition of the fact that the slump in domestic travel was due to the inability of domestic tourist attractions to meet the increasingly diverse and sophisticated needs of domestic consumers, and their inability to supply the information concerning these attractions demanded by consumers. This system was developed with the full support of Ms. Junko Usui, Managing Consultant of Fujitsu

Research Institute. According to Ms. Usui, the objectives of this project are "making use of the timeliness, interactivity, images and sound of the Internet to create a system for sending and receiving tourist information which meets the needs of visitors to Hokkaido and those who would like to visit Hokkaido, and for people to rediscover the fun of a trip to Hokkaido by actually using this system before and after their trip." A Travel Concierge is a "local resident of Hokkaido with detailed knowledge of local culture and arts or of community activities such as sports, or one with great interest in the Internet and multimedia." Concierges offer tourists the following three services:

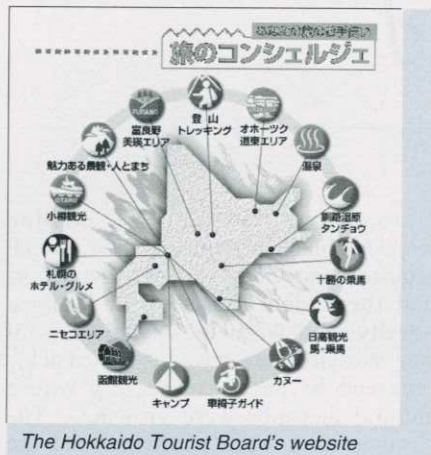
- (1) Travel Concierges themselves provide tourists with real-time tourism information
- (2) Support the planning of personalized trips by way of interactive communication
- (3) Provide "hospitality service" which can become the basis of personal contact and the creation of new friendships.

According to Ms. Usui, at present "there are 15 types of concierge, which include the Otaru Tourist Concierge, the All-Hokkaido Camping Concierge, the Sapporo Hotel, Restaurant and Tavern Concierge, the Wheelchair Access Concierge, the All-Hokkaido Scenic Spot Concierge, the Niseko Area Tourism Concierge, Ecotouring, Experience Nature Concierge in Kushiro marshland, Horseriding, Hotsprings and Fishing.

From late January 1999, they will begin such activities as the creation of homepages."

Below are the merits of this service for tourists.

- (1) It has become possible to obtain local "insider" information which has traditionally not been available to tourists.
- (2) It has become possible to obtain personalized information, tailored to their own individual needs, in a timely manner through interactive communication.



The Hokkaido Tourist Board's website

In addition, according to Ms. Usui "we plan to run various promotions during the summer season, which is the peak season for tourism in Hokkaido. These promotions will include Internet prize giveaway contests and participation in surveys in return for complementary gifts. Also, during a trial period we will carry out a survey to Internet users concerning the activities of our Travel Concierges in order to improve our services."

### Digital Business in a Graying Society

Japan's population is rapidly aging; by the time baby boomers begin to reach retirement age in about 2015, over one quarter of Japan's population will be 65 or older. This is just when the fiber-optic advanced information network which the Ministry of Posts and Telecommunications envisions as linking Japanese society is to be completed, but it is also a time when the world's population will be its oldest in history. Japan's advanced information network will link an aged society, a fact that makes the development of software such as Mr. Aoki's ECOT even more desirable. Even now, the number of elderly computer users is steadily increasing.

For instance, in a recently-created Internet access rental facility in the New Center Business Area of Makuhari, a suburb of Tokyo, the number of elderly users is growing to a surprising degree, and some senior

citizen Internet clubs are being formed. Moreover, as the educational field makes more and more use of the Internet, the base of digitalization and networking is rapidly expanding from the business sector to homes, public services, and educational facilities. This environment has created a host of business opportunities, yet at the same time is generating many societal problems. Filtering software is not a panacea for the problems of a digital society, but it is a fact that in the future ever-higher performance will be demanded of software. Moreover, in the public service sector as well, the creation of digital networks will open a vast horizon of business opportunities, not only in the field of tourist information services but in many others as well, including caregiver service.

In Parts 1 and 2 of this series I have examined the digitalization of Japanese society both from a distance and at close range, seeking along the way problems and future avenues for development. But I have come a far cry from covering the entirety of the Japanese digital world, and in fact have only just scratched the surface. I can at least boast, however, at having been able to present one view of Japan's digital networking market. In the future, should the opportunity present itself, I would like to try looking at Japan's digital world from a different perspective.

In closing, I would like to offer thanks to all those who graciously assisted me in the research for this article, particularly Part 2. **JTI**

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