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Paper No. 15
The Effects of New Information Technology on Women's life in Japan

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This paper, first summarizes the present social position of women in Japan, and second briefly describes how new information technologies have been introduced and employed in Japanese Society. Third, I would like to introduce recent changes of several domains of Japanese society such as education, working styles, lifestyles from women's point of view. In this context, this paper discusses the benefit and problems of information technology and multimedia use in relation to the democratization of women in Japanese society.

Key words: Information Technology, Media Technology, Women's Social Status in Japanese Society

- Women in Japanese society
- Information Technology in Japan
- The Effects of New Information Technology on Women's life in Japan
- The benefits and problems relating information technology for women

1. Women's Position in Japanese society

1-1. Recent Changes in Women's life in Japan

1) Extension of average lifespan and tendency to have fewer children

The average lifespan for Japanese women is now 82.85, the highest in the world. Compared with data from approximately, 40 years ago, the lifespan for women is about 20 years longer.

The total birth rate in Japan (average number of children that a woman bears during her life) was 4.57 babies in 1947, however, this figure has dropped over the next 20 years,
and in 1996 was 1.43\textsuperscript{2).} The reasons for this drop are 1) the decrease in the population of women in their 20s and 30s, 2) the increase in the number of women still unmarried in their 20's and 3) the decrease in the infant mortality rate.

2) Tendency of women to go to college

About 45.5\% (University: 19.6\%, Junior college: 25.9\%) of women receive tertiary education (as against 29.7\%(University: 27.6\%, Junior college: 2.1\%) of men) in 1996. The rate of women who go on to higher education increases every year and overtook the rate for men in 1989\textsuperscript{3).}

3) Increasing number of women in the labor force

As a result of increased longevity, the tendency to have fewer children and pursue higher academic careers, women are now working in society. Women are entering the country's workforce in increasing numbers. Some 50.0\% of those employed are women, and more married women now go out to work than stay at home. From the age of 20 to 50, about two third of all women enter the workforce\textsuperscript{4).}

1-2 Obstacles in the way

For many families, two incomes are a necessity. Middle-class parents feel obliged to put aside money both for the prep schools which will give their children an edge in university entrance examinations and for their retirement in a country where the social security system is primitive and people have the longest lifespan in the world. Today's women have fewer children and more automated domestic work. But if they expect the same opportunities as men, they are quickly disillusioned.

The survey of perspectives on gender equality will show that there are many difficulties which Japanese women have to overcome. There are signs of improvement in the status of women in many places, but it is still difficult for a woman to combine a satisfying home and working life.

As Osawa Mari, associate professor in Tokyo University, discussed, the notion of Japanese society is one of a corporate-centered society. She emphasizes that the most
fundamental and vital element of this corporate-centered society is the patriarchal system that controls women's labor both in the workplace and in the home.\(^5\)

1) Higher Education

About 24.9% of women get higher education at junior or two-year colleges, which virtually no men attend. About 21% of women go to universities compared with 38.9% of men in 1994.\(^6\) Regarding fields of specialty, nearly 60% of female students study humanities, and the number of female students who enter the science and engineering departments is extremely low compared with that of male students. One of the reasons for this is that the range of jobs for women in these fields is limited.\(^7\)

2) In the workplaces

Payment of working women

The average pay of a full time working woman in Japan is about 59.4% of that of the average man. The gap between the wages of men and women is increasing by age. The great majority of women are working in part-time jobs which are often very low paid and offer no unemployment or health insurance, etc. Not many have any prospect of an interesting and rewarding career.

The employment pattern of the female workforce

The employment pattern of the female workforce is one of the industrial world's deepest "M patterns". Up until marriage or bearing children Japanese women work. A Japanese woman typically has 1.43 children today, so when the child is 6 or 7 years old, they go back to the work places as part time workers. As many as 70% of women return to work in their 40's, usually in part-time jobs.\(^7\)

Problems of the Equal Opportunity Law.

Since the Equal Opportunity Law was introduced in 1987, there has been a quite change of the women's position in the workplace. This Law prohibits various kinds of discrimination, but the law provides no penalties for violators.
The strict demarcation between clerical jobs and general or managerial jobs remains unaffected by Japan's equal rights legislation. The ippan shoku grade (clerical) is almost exclusively female, which may be tokenism.

Even the law works effectively, it produces women who work as hard as Japanese men and who do not enjoy their family life and die from overwork.

3) Day Care Centers

Although the increasing number of day care centers and services are being upgraded, this can't cover the needs of women. Some of them are open from 7:30 a.m to 19 p.m, but the majority of them are open only from 8 a.m to 17 p.m. This is fine for a part-time worker in a local office or shop, but it is very difficult for a worker whose commuting time is more than an hour.

4) Politics and political activities

Although women have had the vote since 1946 when General Mac Arthur controlled Japan, the governing lower house of the Diet is 92.4 % male and the House of Councilors is 86.5 % male.

Things become a little better as you go down the power scale, but only slightly. Though just 3.3 % of representatives at prefectural councils are women (none of Japan's 48 prefectures have a female governor), 7.4 % of municipal councillors and 14.4 % of ward councillors are women”.

2, Information Communications in Japan

I will briefly introduce some data on information communications in Japan from The Ministry of posts and telecommunication ,1996 White Paper”. (10 This can be accessed on the MPT homepage.

2-1, Telecommunications Services

Standard Telephone Services
As of the end of September 1996, NTT had concluded 61.56 million telephone service contracts, up 1.4% year over year. The three new Type 1 long-distance carriers had a total of 34 million subscriptions, up 10.9%.

Fax Services
As the end of September 1996, there were 913,000 fax lines.

Mobile Communications Services
The first mobile phone service in Japan stated in Tokyo and Sapporo in 1992. The total number of mobile subscribers in Japan province will reach 2.38 million in the year 2000.

Cellular Telephone Services
Cellular telephone service is provided by nine regional NTT DoCoMo companies and 17 other telecommunication carriers. As of the end of September 1996, the companies had a total of 15.31 million subscriptions for cellular telephone services, this represents a 129.5% increase year-on-year, a rate substantially larger than for standard telephone.

Personal Handy phone System(PHS)
Since the July 1995 inauguration of PHS service in Tokyo metropolitan area and Sapporo, several companies have started services. The number of PHS service contracts has surged tremendously. At the end of March 1997 the number of subscriptions stood at 6.03 million. The reasons for its rapid growth is low cost of the device (30 to 40 US dollars) and low usage costs.

Radio Paging Services
As of the end of September 1996, carriers had concluded 10.63 million contracts for radio paging services, representing a year-on-year increase of only 2.9%, a slowdown of 14.1 points compared to the previous year.

Internet and Personal-Computer Communications Services Internet Communications
Network Wizards of the United States reports that as of January 1997 there were
16,150,000 computers connected to the Internet, up 70.5% year-on-year. Of these,
about 730,000 were in Japan.

According to official figures, the number of Internet users in Japan has increased rapidly,
hitting 40000-50000 by the end of May.

Connections around the world

The worldwide breakdown of the number of personal computers connected to the
Internet is, U.S.; 62.6%, Japan; 4.5%, Germany; 4.5%, Canada; 3.7%, U.K.; 3.7%. A
number of countries have increased quickly remarkable over the past three years:
Thailand, 33.50 times; India, 22.74 times; Japan, 17.17 times; New Zealand, 14.64
times, and Singapore, 10.42 times.

PC Communications

In its June 1996 Survey of PC Net Work Stations Nationwide, the New Media
Development Association reports that the number of PC Network station stood at 2,741,
up 4.7% year over year. Some 5,732,000 users were member of these stations, up
55.4%. Nineteen of the stations had membership of at least 10,000 users, totaling
4,668,000 users, up 55.8% and accounting for 81.4% of all users.

Satellite Broadcasting: Lifestyle Changes

With more channels available by satellites, the selection of programming will surge.
Furthermore, people will be able to receive the specialty programming they desire
without any time constraints. Broadcasting is thus expected to be at the forefront of
cultural change in such area as education and entertainment.

Viewers will be able to use broadcasting as a means of obtaining a variety of services.
Informercial broadcasting is already under way, information on product features and
methods of use and allowing people to order products by phone from their homes.
Digital multichannel satellite broadcasting provides a larger volume of shopping
programs than terrestrial broadcasting or broadcasting via broadcast satellite; it will also allow viewers to use their digital reception equipment to place orders and make payment.

3. The Effects of New Communication Technologies on Women's life in Japan:
The benefits and problems relating information technology for women

In Chapter 1, the present condition of Japanese women was described. In Chapter 2, we outline progress in information technology.

Progress in information technologies has been extremely fast over the last few years. Even annual communication white papers and data for related reports change dramatically in just a few months.

As described in Chapter 1, it cannot yet be said that women in Japan are empowered. There are barriers in finding jobs and achieving promotions in the workplace and arrangements for nursery facilities are insufficient. For women to bear children safely and work equally with men in society, huge barriers must be overcome.

However, after the war all unpaid household work was left to women and men were forced to overwork, so the Japanese became known as "economic animals". Present day Japanese society was built on these peoples selfless devotion to their companies. Now this evil influence has appeared in various places and people have started to adopt a blockade philosophy. The system of values built up over the 50 years since the war has started to break down and Japanese style economic management has also started to become destabilized. From this point of view, too, the arrival of the information society has shaken the traditional Japanese social system from the engineering side. There is a common opinion that the arrival of the information society will provide an opportunity for women to enter society more fully and correct the inequalities within it.

In this part?I would like to discuss how new information technologies can be employed for the benefit of women and assist their participation in Japanese life from several aspects; education, networking, work, and everyday life.

Data on changes in information technologies in the areas introduced here are in constant flux, so the figures are changing every day. This makes it difficult to collect data worth
analyzing at present. Therefore, I would like to explain the remarkable changes in each field with data collected from various sources, including up-to-date newspaper articles, magazines and P.C. communications.

3-1. Women networking for empowerment

Information is power. Knowledge is the base for determining one's will and solving one's problems. When women obtain the necessary information, adapt such information and use it in common with other women, the power of women as a whole will be strengthened. Construction of a system in which the necessary information can be obtained whenever necessary is crucial to the equality of men and women.

When considering the empowerment of women and information networks Japan today, there are two major currents. One is like WINET at National Women's Education Centre, which is a hierarchical and systematic information network that exchanges information about women inside and outside Japan. This is run by the center for women's halls or women's centers all over Japan. The other is a rather loose, grass-roots network in which women's associations or groups link people and organizations with similar interests to enlarge their sphere of activities. Information is distributed quickly at low cost due to the use of e-mail, so that these networks are mainly on-line.

(1) WINET by National Women's Education Centre

WINET by National Women's Education Centre

National Women's Education Centre has over 70,000 books on women and family from Japan and foreign countries. It collects over 28,130 publications, 92,780 newspaper index, arranges and offers these books and publications with a complete index at Women's Education Information Centre inside the center. WINET was started in 1991 and links this information centre with women's halls, women's centres and women's administrative organizations and universities via telephone lines, thus forming an information network. It now exchanges data with other organizations using an on-line communications (BBSs, e-mail). The information includes a literature database
(books, 21,770; magazines, 28,130; newspaper articles, 92,780), study information database (subjects on women's studies, themes and contacts in universities all over Japan), facility database (women's hall, public and private women's halls, women's centers, women's community centers both for working and agriculture), a learning example database (contents of activities, time, name of lecturer, lecture, courses and symposiums on women and family education held by prefectures, cities, towns and villages), a statistic database, and an international communication database.

Examples of questions for reference

What titles are available for research on women ?

How and where was 1994 set as International Year of the Family?

Is there any example of a municipality which supports women's issues?

Are there any lectures on women's studies held by universities in Tokyo which can be attended by people from outside of the university?

Are there any examples of lectures held by local municipalities which provide nursery facilities?

2) Network utilizing on-line communications or the Internet

The number of people using on-line communications in Japan is increasing rapidly, and the ratio of women using on-line communications is approx. 20%. When the Nikkei Shimbun did a study of 500 young people between 15 and 34, they found that one in three of them had a PC in their home and half of those who did not have one yet plan to purchase a PC within the next two years. The average hour of using PC a day is 83.5 minutes for man, 24.8 minutes for women.

The fact that the Internet was very useful when the Hanshin-Awaji earthquake occurred in 1995 and information on the World Women's Conference held in Beijing was distributed all over the world via the Internet has contributed largely to greater interest in on-line communication on the part of everyone, including women.

Women's groups have begun to hold conferences on Nifty Serve and PC Van, open home pages on the Internet and exchange opinions by e-mail. If you visit these, you will see various NPO activities, including childcare, women's health, women's work, women's
participation in politics and volunteer work. Many activities on women will be the basis of a media network in the future.

3-2. Women's work

Japanese society experienced the bursting of the economic bubble that had reigned between the end of 1980s and the beginning of 1990 and now faces intense global competition. Every company has started to improve the productivity of white collar workers, and some enterprises have realized that one key to streamlining is the promotion of tele-work. Tele-work is a form of working using information communication technology without actually going to the office.

The merits for the individual worker are as follows: 1) their fatigue will be reduced by eliminating the need to commute to the office, 2) family life is enriched and there is more spare time for participating in local activities and self education and 3) there are more opportunities for hiring people who need to look after a child or a disabled or elderly person at home.

When Nifty Serve, the major on-line communication network in Japan made a study of actual working conditions on the network in their working at home forum (40,000 members) in January 1997, 900 people participated in the study. Two thirds of them were women. Two-thirds of the women working at home lived with their children. Three out of four of them were in their 30s and their children were still very young. They said that they worked at home because they had to look after their family, including their children, and do house work. Women who retired from the labor force to take care of children, who are at the bottom of the "M" of the labor force ratio curve, are becoming interested in working at home while bringing up children. Actually this type of work usually involves a special skill such as using a word processor, computer phototypesetting, design or software related. Behind these specialties, there are high academic career and work experience. Eighty percent of women have graduated from special colleges or junior colleges and 40% of them from universities. Ninety percent of them have more than two years working experience and two thirds of them have more than five years experience. The work they do at home is the same or similar to that they did when they worked at a company.
Change in women's working styles

Working at home is attractive for female students since they have few job opportunities and they can work at the job they enjoy. It is attractive for working women since they can work whenever they like, they are free from the burden commuting, they are often not satisfied with the treatment they get when working at a company or they want to look after their family. Housewives want to get back into society, they don't want to spend all their time just looking after children or they want to work again. However, the increase in the number of people working at home is also influenced by the change in the lifetime employment system of companies. There are fears that working at home might eventually lead to women becoming housebound and reduce the range of job opportunities.

Part-time work became popular in the late 1980s and now the employment style of full-time work has changed. Information on people, money and things crosses boundaries between countries, barriers between industries and the dividing line between men and women. Along with improvements in productivity and technological innovation, this may be a force to break down the former manner and at the same time create new values in industry and lifestyles. In Japan people used to think that the only way to have a career was to enter a company, and in the end this belief created "company people." However, the number of people in society who are independent and have a clear purpose will increase in the future, and Japan's company-oriented society will be transformed.

3-3, Women in Higher education

The children of the post-war baby boomers are now in their 20s and the number of people 18 years old or younger has dropped dramatically now in Japan. The number of children has also been decreasing continuously.

In addition, international social changes and technological innovation are also influencing the rapid reform of higher education. By 1997, over 60% of Universities were connected to Internet, the satellite telecommunications received governments.
According to a Survey on Information Technologies and Lifestyles taken on December 1996, 23.2% of people who responded said that they wanted to use distance education without any limit on media to be used in the future as a new information communication service. This service is fourth in popularity of all services and many people have high hopes for this service. By gender, the ratio of men is 19% while the ratio of women is much higher than men at 36.2%. As to the demand for distance education by TV alone, regarded as including educational programming such as foreign languages, hobbies and culture programs, 36.7% of all people who responded and 42.4% of women want to use such a service.

The University of the Air

The University of the Air was established in 1983, in response to these general needs for lifelong education. Its programs are offered on TV and radio broadcast. There broadcasts will be expanded to all parts of Japan by satellite by 1998.

As shown by the fact that more women than men are students of the University of the air, it is obvious that the number of women who utilize home education media when they have babies or are bringing up young children in order to find a better job when they reenter the labor market will continue to increase.

The Use of Satellite Corporation Systems

The Institute of Multimedia education inaugurated the use of the satellite corporation systems to unite universities to support their corporative activities such as corporative lectures and discussions.

For instance, not many Japanese universities have women's studies courses. By using SCS, people who are interested in these studies can attend the courses from anywhere in Japan.

3-4, Women and Masmedia

As Muramatsu Yasuko points out, the mass media have great potential in promoting social change. However, at present the mass media reinforce stereotypes of men and
women. We now face an age of many channels and a dramatic increase in the need for software in the future. In the future, when images and sounds are digitized and the production of TV programs and videos becomes ever more accessible, the number of women creators will definitely increase. When the number of women working at managing and planning divisions in the media companies increases, the amount of material created from a woman's point of view will increase. This will surely change the position of women in society.

3-5, Problems relating women in media-oriented society

There are problems relating women in media-oriented society; 1) Prevention of abuse, problems of privacy, 2) Information gap between multimedia users and others. 3) Harm to health, etc.

Though I mentioned that the arrival of the information society will provide an opportunity for women to enter society more fully and correct the inequalities within it, there are people who are questioning this kind of optimistic future. First, as the reports on the usage of PC is very low. Ministry of Education is very keen to provide computers and the lesson for information technology has started in secondary schools. There are, however, most of the teachers advising the use of PC are men, and there is a feeling the use of PC is somewhat the domain of male students. Second, there are not many women participants in the conferences on multimedia technologies. Consequently, it can be said that as progress of media-oriented society, there is a possibilities that the gap between men and women as multimedia users will increase. We must cooperate to work for encouraging women to participate in decision making process relating information technology in both one's own country and at international level.

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