If, possible, please read this material before attending speech. Thank you.
Overview of Japanese Media and Information Systems
Supporting Documentation for Speech by Keiji Shima

Attached are brief reports on the status of TV, newspapers, press agencies, publications, think tanks, databases and multi-media in Japan today.

The main points that become apparent after reviewing the information are:

1) Japan has an almost excessive amount of information, but has only a limited number of systems capable of "decoding" the information. Many think tanks were established to address the problem, but they remain unable to analyze data objectively because of their heavy reliance on specific businesses for operational funds.

2) As we approach an integrated multi-media age (a next generation communications network), what is most urgently needed is not voluminous information but a system capable of choosing between data, necessary and unnecessary.

3) Multi-media will grow into a key industry in the 21st century. With the help of digitized networks, the world will become a borderless market, which will be worth several trillion dollars in value. In order to grasp the greatest business opportunity of the 21st century, we will need better information and media structures.
Status of Japan's TV Media

Terrestrial TV Stations

Japan's TV services are divided into two schools — one, NHK which is the public broadcasting establishment and the other, a group of commercial TV networks — Nippon Television (NTV), Tokyo Broadcasting System (TBS), Fuji TV, TV Asahi and TV Tokyo. NHK has two TV channels and a teletext broadcast channel covering the entire country. The commercial TV stations are represented by the above-mentioned five major networks and 11 other stations independent of the five networks (see chart 1). NHK has 54 TV stations throughout the country and has 3,489 stations for general services in all if relay stations are included and 3,412 such stations for educational services. The ministry of Posts and Telecommunications announced a plan in 1986 to grant permission to four more commercial television stations applying for TV business in a bid to rectify regional differences of information. The move is intended to equalize the number of local TV stations affiliated with the four commercial networks except TV Tokyo.

Satellite Broadcasting

There are four channels. NHK operates BS channel 1, channel 2 and high definition television DBS now in an experimental stage. The fourth channel is operated by Japan Satellite Broadcasting Inc. (JSB), jointly established by a group of commercial TV stations. Eight more such channels will be added when a satellite scheduled for launching in 1997 becomes operational. While NHK is expanding the number of subscribers, JSB has suffered for an inability to attract subscribers and experienced financial difficulties (see chart 2).

There are four stations owned by Japan Communications Satellite Inc. (JC-SAT), which specialize in programming of news, sports and motion pictures and six similar stations owned by Space Communications Corporation (SCC). Both use communications satellites (CS). Communications satellite businesses in Japan hailed in their inception, encouraged by the Ministry of Posts and Telecommunications, but have failed to live up to earlier expectations. These communications satellite businesses were aimed at co-existence and co-prosperity with CATV, but were forced later to switch to direct reception by subscribers because CATV failed to make as much progress as first hoped. As a result, program distributors were recognized as broadcasters consigned. (At present, they are doing businesses both for CATV and direct broadcast.)

Cable Television

CATV, first designed to relieve poor reception of TV signals, has developed into multi-purpose CATV with 30 to 50 channels. Now, it is capable of two way
communications and re-transmissions by way of broadcast satellite channels. The subscription rate in Japan has by now reached some 20 percent, compared with 60 percent in the U.S. There are 432 privately operated broadcast stations and 1,400,000 households subscribe to them throughout Japan. Such CATV stations designed for urban areas now number 134 and 730,000 households subscribe to them. Program distributors using communication satellite now number 21.

Closed Circuit Television (CCTV)

Closed Circuit TV is making its way into businesses and public areas as airports and department stores.

Television as Information Medium

TV medium is more open than closed and is powerful as a means of propagation and must be fast to reach viewers as their appetite for information is very keen.

News Sources

1) Newspaper companies

Except NHK, all commercial TV networks get information from their affiliated newspaper companies. The newspaper companies used to hold hegemony over their affiliated TV stations regarding news, at least at the outset of their TV businesses. Their control over the TV stations has now somewhat weakened. Still, news gathering capabilities of the newspaper companies surpass those of the TV stations that therefore largely depend on the newspaper companies.

2) News agencies

NHK and commercial TV stations are relying on news agencies to a great extent. Not only Japan's Kyodo News Agency and Jiji Press but major news agencies overseas are suppliers of news to them. Especially after Japan's major newspapers with nationwide circulation terminated their contract with Kyodo News Agency, NHK and commercial TV networks have become more dependent on the agency.

3) TV correspondents

TV correspondents are stationed overseas. NHK has three overseas general bureaus (Tokyo in Asia, London in Europe and NY in the U.S.). In addition, NHK has 10 overseas branch offices, including Bangkok, Beijing, Seoul, Phnom Penh, Sydney, Paris, Moscow, Vladivostok, Berlin and Washington. It has also representatives at 15 places overseas and has a plan to increase them. As regards Japan's commercial TV stations, NNN networks have 15 such overseas branches,
JNN networks 14 such overseas branches, FNN networks 18 such overseas branches, ANN networks 19 such overseas branches and TXN networks 6 such branches abroad. They are planning to open such branches in the Asia Pacific area, including Hong Kong and Shanghai.

4) Release from government offices and major groups

Weather chart released from the weather bureau; information on major fires from fire-fighting stations; traffic information from Japan Railways and Tokyo Expressway Public Corporation; other information.

5) Publication media

For example, Bunshun Monthly and its coverage of Lockheed scandal and Bunshun Weekly and its coverage of Kazuyoshi Miura's suspected involvement in the death of women.

6) Tips-off from citizens

7) Information from broadcasts of other TV stations

8) Information from TV stations overseas

Japanese TV companies are paying more contract money than their counterparts overseas to get information. TV Asahi and NHK have contract with CNN; NHK with ABC; TBS with CBS; NTV, Fuji TV and TV Tokyo with NBC; and Fuji TV with BBC.

Laws and Television

Broadcast in Japan is regulated by the Wireless Telegraphy Act and the Broadcast Act. Internationally, it is governed by the ITU Convention, Agreements regarding INTELSAT, Bern Treaty and other arrangements.

To exercise self-control over its programming, NHK has "domestic programming standard" and "international programming standard" and commercial TV networks likewise have their own standards and are subject to "broadcast standard" set forth by the National Association of Commercial Broadcasters in Japan.

In terms of the strictness of regulations, no one can tell any difference in between. These regulations are in common calling for the specified roles played by broadcasters, respect for human rights, truth and impartiality to seek broadcast journalism.
Newspaper companies and television

Japanese commercial TV stations were inaugurated in 1951, most of them with support from their affiliated newspaper companies.

At their start, these TV stations, with meager news gathering abilities, were obliged to rely on newspaper companies that are proud of a tradition of news gathering. The major newspaper companies with nationwide circulation have given a financial support and sent correspondents to their affiliated TV networks and as a result have been exercising influence on them.

NNN (NTV is the key station) has business relationship with Yomiuri Shimbun Newspaper; JNN (TBS is the key station) with Mainichi Shimbun Newspaper; FNN (Fuji TV is the key station) with Sankei Shimbun Newspaper; ANN (TV Asahi is the key station) with Asahi Shimbun Newspaper; TXN (TV Tokyo is the key station) with Nihon Keizai Shimbun Newspaper.

However, in the 1960s, the influence by newspaper companies on their affiliate TV stations weakened and as a result, these TV stations have become more independent and self-sufficient and have increased their influence on the public.

Businesses and television

NHK is financing itself mostly with subscription fees from households with TV sets.

Commercial TV stations, in the meantime, rely largely on revenues from advertisements. At the start, the TV stations gave in to the pressure from ad agents and program sponsors but their pressure has recently declined at least outwardly. Yet, two major ad agents, Dentsu and Hakuhodo, are among some which are continuing to put influence on these TV stations.

TV and Politics

Historically, TV has long been under strong influence of politics as it is subject to license from the government.

Although TV proclaims to be politically neutral and impartial in reporting, it is true that TV has been historically under political pressure. As shown in the case of the general elections held recently, TV programming on political debates have profound effect on the outcome of the elections and it is anticipated that TV will have more chances than ever to exert influence on politics in the future.

TV as a mass medium has the largest quantity of information and audience. Therefore, its influence on the public is wide and strong. TV should always take
into account its influence on the public and must be balanced in reporting. The recent remarks by Mr. Tsubaki, former President of News at TV Asahi afforded a lesson on how TV news reporting should be. In his remarks, Mr. Tsubaki reportedly hinted at impartiality in news reporting on the occasion of the general elections.

Japan's TV media in the 21 century

Japan has long restricted the TV broadcast area to "inside Japan." Satellite broadcast by Star TV of Hong Kong that uses the satellite launched in 1991 has drastically changed the notion of the TV broadcast area. Star TV has enabled owners of dish to have access to foreign TV programs.

Japanese satellite broadcast via BS-4 scheduled to be launched in 1997 will also be accessed by people in the far east of Russia, Korean peninsula, coastal areas of China and southeast Asia. (Even at present, it is accessible from the Korean Peninsula.) When the time arrives, Japanese TV broadcast will go out of Japan into Asia—from a local Japanese market out into a vast expanse of Asian market. East Asia, rich in population and flourishing with the world's highest economic growth rate, will all of sudden become an attractive target.

Japanese TV programs have found their way into Star TV and terrestrial channels in Asia. Satellite broadcast will no doubt contribute to a stepped-up flow of Japanese TV programming into Asia, which at the same time will require Japan to produce pan-Asia-oriented programs.

TV software knows no existence of national boundaries. TV programs, long protected by the reachable limits of terrestrial broadcast, will have to deal with a borderless age brought about by an increase in satellite broadcasts. This borderless age will undoubtedly need contemporary, universal software that transcends nationalities and regional interests.
Status Of Japanese Newspapers As Medium
Circulation

Circulation of Japanese newspapers throughout the country now reaches about 70 million in number, the second after Russia. Circulation per capita is the largest of the world.

The circulation doubled in 28 years starting 1960, but circulation in terms of household increased only by 10 percent, which means it went up in proportion to the increase in the number of households.

Newspapers with nationwide circulation

At present, the nation's six major newspapers, Yomiuri, Asahi, Mainichi, Sankei, Nikkei and Chunichi, are vying with each other. Since the 1960s, "power relationship" among the three major papers, Yomiuri, Asahi and Mainichi, has long been maintained, but in the 1980s, this power relationship has undergone a change and as a result, Yomiuri and Asahi have emerged as two major papers. Conspicuous is a sweep growth in circulation of Nikkei.

The Lower and Upper house elections of 1986 accelerated the competition between Asahi and Yomiuri.

Local Newspapers

Local newspapers enjoy wide, but regional circulation and in most cases are read along with newspapers with nationwide circulation.

Information

Major newspapers, after departing from Kyodo News Agency, have established their own information networks. Local newspapers, in the meantime, are surviving, maintaining their relationship with Kyodo and Jiji agencies for news information.

Newspapers in the age of change in media

In the 1980s, TV media, as represented by CNN, have made their way into the media world. In order to vie with TV media which pride in speed, rich quantity of information and eye-appealing performances, newspapers are under pressure to re-examine their traditional way of news reporting. In addition, tabloid papers, like Evening Fuji and Daily Gendai, have made significant inroads, shaking the traditional structure of Japanese newspaper world.
Against this background, Japanese youngsters have shown a departure from newspapers, resulting in a decline in the sales of newspapers based on monthly contract. Sales of papers at newsstands are on increase.

Future of newspapers in new media age

Computers, micro-electronics and highly advanced electric communications technologies are creating an evolution in the world of media. Newspaper companies have introduced electronic editing systems, enabling them to have more efficient editing capabilities. Major newspaper companies, now equipped with up-to-date data processing capabilities, have started data-base systems, thus beginning to play a major role in new media.

With the heralding of a new media age, characterized by the industrialization of information, Japan's major newspaper companies are joining forces with publishers, radio and TV concerns and motion picture companies in an attempt to make a conglomerate. Nikkei and Asahi, in particular, are attempting to make a media-mix establishment.

But, new media which requires huge capital investment tend to force the newspaper companies to look for financial support from other enterprises.

In the meantime, Japanese newspaper companies are now calling on the government to make a wholesale review of the current restrictive measures levied on radio and TV. Their harmonious call for relaxation of the regulations came at a time when newspaper companies came to conclude that they now desire to join the TV market. Indications are that their chance to join the TV market may be thwarted by gigantic enterprises in Japan and foreign media enterprises.
Japanese press agencies

They engage in gathering and distributing domestic news professionally and at the same time run their own offices overseas while being supplied with foreign news under contracts with their counterparts abroad and reinforce their staff overseas when need arises so that they can do news gathering activities on their own and send stories back to Japan.

Kyodo News Service: A not for profit organization.

Jiji Press Limited: Financial relationship with UPI.

Major press agencies in the world

They run offices in major cities and station correspondents there and dispatch their correspondents to places other than where they have offices, if need be, to cover worldwide.

Reuters (Britain) worldwide news coverage.

AFP (France) Europe-oriented news coverage

Hsinhua News Agency (China) news coverage of China and Asia.

TASS (Russia) news coverage of Russia and east Europe-oriented.

AP, UPI (U.S.A.).

News supplies by press agencies

After Asahi, Mainichi and Yomiuri newspapers terminated their contracts with Kyodo News Service in 1952, Kyodo switched its supply of news materials from Japan's major papers with nationwide circulation to local papers. Kyodo still continues to supply foreign news to these major papers. Kyodo also provide broadcasters with news materials.

Jiji has industrial circle, trade firms and stock brokerage as major clients and supply the country's major papers with nationwide circulation and broadcasters with news materials.
Status of Japanese publications:

Japanese read an average of 1.4 books and 2.5 comic books and magazines a month, according to a survey conducted in fiscal 1992.

It appears that as Japan becomes affluent, Japanese become busy, having limited time for reading. Following is a summary of the Japanese publication business.

Sales of books in 1992 valued at an equivalent of 9,000 million dollars, an increase of 3.4 percent over the previous year, but a sizable drop compared with an increase of 9.1 percent last year over the preceding year. The books on which the survey was conducted categorically those of general interest, philosophy, history, social science, natural science, technology, industry, art, language, literature, juvenile books and study books. Of them, books on social science constituted 22.8 percent and literature 20.5 percent.

Sales of magazines and comic books in 1992 valued at an equivalent of 13,500 million dollars, 5.8 percent up from the previous year. Categories were literary arts, public entertainment, arts, music, way of life, hobbies, automobiles, sports, economy and philosophy. Of them, sales of books on sports leaped, showing an increase of 14.1 percent. Sales of sport books have increased for three consecutive years by a large margin.

According to figures in fiscal 1990, publication of new books in Japan totaled 40,576 a year, compared with 67,890 in Germany and 48,146 in the U.S. The largest publication of books in Germany is those on social science and those on sociology and economy in the U.S.

There are other categories of publications that are not being sold in ordinary bookstores. Among them are, for instance, such books published by Nomura Research Institute as "Comprehensive Study," "Survey of Business World," "Nomura Search" and "NRI Quarterly."

Mitsubishi Research Institute also publishes "Reports From Mitsubishi Research Institute," "Top Management Service," "Chart Brighter Business" and "MRI News Letter." These publications are reportedly meeting the demand of subscribers as they are published by the Think Tanks singled out by the subscribers on their own. There are many ways of distributing these and other publications. Among them are free distribution (64.6 percent), direct shipments (10.1 percent), commercial publications (3.6 percent) and sale route of government publications. Organization wise, foundations distribute their publications free of charge (68.6 percent of all such publications) and corporations distributing theirs by direct sale (31.2 percent). Profit-seeking corporations distribute their publications by "commercial sale (5.6 percent)," larger in number of copies, compared with other
organizations. Others constitute 27 percent, among them video cassettes and floppy disks.
Status of Think Tank

What Think Tank Is

An organization or a group studying such issues as economy, diplomacy and defense and having a say to the outside are regarded as "Think Tank."

Interpreted in Japan as "Comprehensive Institute," there are many such organizations now in Japan.

Portrayed as a group of brains or an intellectual group, these institutes, made up of experts on many fields, conduct research, analyze and offer solutions to issues of public interest. Whereas U.S. and European researchers tend to specialize in international issues, Japanese counterparts are in most cases involved in economic issues.

History

First Japanese Think Tanks were established in a period from about 1960 to 1970. They include Japan Institute of International Affairs (1959), Nomura Research Institute (1966), Mitsubishi Research Institute (1970) and NIRA (1974). This is considered as the first wave of the births of such research institutes in Japan. Since the 1980s, a second wave of such inaugurations visited Japan, with top-flight Japanese banks and life insurance firms building research institutes, and a third wave beginning at a time of the so-called "bubble years" that started in 1987 and many banks, insurance companies and mass communications interests setting up such institutes against the backdrop of internationalization of Japanese interests.

Of all such research institutes, Nomura Research Institute which triggered off the so-called first wave of such institute establishments and two other kinds have more than 2 thousand staff members working for them. The rest of similar institutes have staff, ranging in number from more than 10 to more than several hundreds.

Types of Japanese Think Tanks

The "pioneer" of research institute is Rand Corporation, established in 1949 with fund funneling from the U.S. Air Force, which devoted itself to the development of weaponry and the buildup of strategic system. The antithesis is a Think Tank, based on aid from foundations or revenues from the sales of publications, which specializes in the study of policies and makes suggestions. The Brooklyn Institute is a typical kind established in 1926, sending its several staff members into a new U.S. administration when administrative change takes place. A third type of such
research institute is private ones that seek profits and Japanese kinds fall in this category.

Activities of Think Tanks

According to a survey conducted in June 1990 by NIRA, an official research institute, more than 30 percent of 1,100 studies carried out by 455 Japanese research institutes were found related to land developments of regions and urban areas, followed by economic and industrial matters. Issues concerning environment and public life constituted only 10 percent, combined. Studies concerning international problems were only 62 cases, less than the U.S. and Canada.

Despite about 60 percent of Japanese Think Tanks are non-profit-making foundations, they rarely make suggestions on government policies or tender counter-proposals as replacements of government policies. In fact, they are mostly bending backward to collect data that would advocate policies of government offices.

Issues surrounding Japanese Think Tanks

The most significant difference between U.S. Think Tanks and Japanese counterparts concerns the openness of information. Of 8,600 study reports compiled in 1989, a mere 10 percent is open to the public. In the U.S. and European countries, 90 percent was releasable to the public. Washington has nearly 100 Think Tanks and they spend no time reacting to issues when they crop up and quickly come up with predictions. Many U.S. and European Think Tanks have well-known personages, like Dr. Kissinger with the Strategic and International Affairs Study Institute; Mr. McNamara with the Brooklyn Institute; and Mr. Evalley, one of "brains" for the Thatcher administration, with the Royal Institute of International Affairs. Because of their popularity, they win the confidence of the public. In Japan, many privately run Think Tanks are financed by their "parent" companies and staffed by people from such companies, they would have to concern themselves with matters of interest of the parent companies.

Another difference between Japanese Think Tanks and U.S. and European Think Tanks is that, despite 60 percent of Japanese Think Tanks being foundations that do not seek profits, they seldom make suggestions on government policies or counter-proposals. Most of them are keeping themselves busy collecting data that would support policies of government offices. There is a mounting outcry calling for the establishment of proposal-oriented Think Tanks in Japan. Critics point out that one of the reasons why the Japanese government failed to make a quick response to the Gulf War was the absence of such Think Tanks as capable of international affairs.
Still another difference is that Japanese private Think Tanks are heavily dependent on their parent companies and their affiliates or government offices, getting 80 percent of their revenues from them. Therefore, unless these Think Tanks alienate themselves from their dependence on them, it is hardly expected that they could demonstrate their standpoints straightforward independent of their parent companies and government offices. Under the current circumstances, they face a limit in mapping out public policies as people can imagine.

Finally, many Think Tanks that mushroomed in Japan are not able to make good use of themselves. Major Japanese trade firms set up "Environment Office," riding the crest of "make earth clean" boom and super markets and electric appliance makers tackled the issue of recycling. In many cases they ended up with calling for being frugal and recycling efforts merely within their companies, falling short of going beyond them. When they were not successful, they turn to experts for advice.

Think Tanks for future

As the so-called "bubble" burst, sending Japan into recession, Think Tank boom went down. To make a breakthrough in the situation, Japanese Think Tanks first need to lessen their dependence on government offices, central or prefectural and step up their independence from their parent companies and their affiliates.

In hard times, there is a need for such Think Tanks as capable of mapping out public policies from international perspectives. In Japan, bureaucratic establishments themselves are considered as the largest Think Tanks. If private Think Tanks ever want to supersede the bureaucratic establishments in making proposals on Japan's future course and policies, they will have to build themselves on their own footing, independent of government offices and specific enterprises. Critics are of the opinion that Japan must change itself into a country that will help private Think Tanks collect without difficulty "money with no string attached," if they are to become independent, non-profit-making research bodies. There is also a need for new tax legislation allowing tax exemptions on donations, similar to the US. Currently, donations are taxed and such taxes inhibit the development of NPO's.
Japanese Database Business at Present

Market

The market for Japanese database services in 1991 was worth 216 million yen, triple the value of the market 10 years ago. It accounted for 3% of the total sales of the information industry as a whole.

The on-line share of the services was 150 billion Yen and the off-line services, such as CD-ROM and magnetic tapes were 66 billion Yen.

Among major world markets, the United States is by far the largest market both in sales and per capita use of such services, with the total value of 1 trillion Yen. Japan trails behind the United Kingdom.

In Japan, personal computers equipped with CD-ROM have begun to spread rapidly. This, along with experiments in next generation network communications being undertaken by the Ministry of Posts and Telecommunications will have a great impact on the future of the database industry.

Providers and Users

The number of commercial databases reached 4,000 in 1992, 10 times as high as in 1982. Business databases account for 40% of the number followed by 30% for natural science and technology, 25% for general information and 5% for the social sciences. The growth of databases for business and natural science and technology was outstanding. Newspapers and magazines used the databases most heavily.

One of the unique characteristics of Japanese databases is ambiguity in the corporate forms of providers.

33% of the providers are Japanese against 67% from other countries.

Market Trend

The first use for databases was bibliographical. As uses requested more and more information about the content of the articles, the detail increased. Now many databases even offer communications services.

Most databases offer information in text form. Figures, tables and photos are usually tele-faxed to users. CD-ROMs which have an installed base of one million in 1993 have opened the way for multi-media databases which can include video and audio information.
STATUS OF JAPANESE MULTI-MEDIA

Advanced information networks (ISDN)

By manipulating a house-installed terminal equipment, you will be able to do shopping, settlement of bank accounts, not to mention televised phone calls.

NTT started digitized communication network in and around Mitaka and Musashino cities near the center of Tokyo in 1984. By August 1993, 220-thousand circuits were installed throughout Japan. NTT, according to its mid-term administrative plan, envisaged that such circuits will reach 750,000 by the end of 1994, but the reality fell far short of the estimate. As a result, ISDN industry in Japan registered a deficit totaling an equivalent of 50-million dollars in fiscal 1992.

Delayed diffusion of the new idea of communications to households, high equipment cost, annoying procedure of manipulation and shortage of data are considered responsible for the deficit.

CAPTAIN (Character And Pattern Telephone Access Information Network System)

With CAPTAIN, one can pick up TV news, weather forecasts and even book a flight by merely pushing buttons.

NTT started CAPTAIN services in November, 1984, but its subscribers number only 145,000 as of July, 1993. One year after the start of services, NTT portrayed it as "Million Plan," but the contracted number of CAPTAIN system failed to reach far less than one million. Furthermore, the number of businesses that are supposed to supply data to CAPTAIN subscribers now only stands at 400 and is on the decline after it reached 680 in fiscal 1986, a peak year.

High cost of terminals, failure to supply in-depth data which subscribers wanted and selection of "many and unspecified persons" as prospective customers are attributed to the miscarriage.

Limited "character" information is also to blame for it.

INTEGRATED MULTI-MEDIA AGE

New generation communication networks

In 1992, Vice President Gore announced a multi-media conception in which houses and companies in the U.S. will be linked by optical fibers by the year 2015 – an idea of information super highway.
Large information-related businesses are preparing themselves for the advent of TV's 500 channels and are already well on the way to the realization of interactive television.

The Japanese Posts and Telecommunications Ministry announced an idea of the next generation communication networks on October 7, 1994. The ministry plans to invest an equivalent of 430,000 million dollars by 2015 for multi-media project to catch up with the fast-growing industry in the U.S.

This project, when developed, will extend the optical fiber cables now laid out in major parts of the country to individual houses and businesses and make it possible to send back and forth clean TV images and data in large volume and at high speed throughout the country.

The ministry and private sectors plan to invest a combined 50 million dollars at the experimental stage. A site in Kyoto will be chosen as a model venue. At this model site, 300 houses will be linked up with optical fibers and undergo an experiment on multi-media, aloof from the conventional distinction between communications and broadcasting. The experiment will be completed within the current fiscal year.

During the experiment, in-house medical care, in-house schooling, home shopping and video library services will be conducted on a both way basis.

Japanese multi-media in future

The United States now appears to be making all-out efforts for a multi-media project. In a bid not to lag way behind the U.S. in this field, management of top-flight Japanese businesses and representatives of prefectural governments have begun a series of hearings and serious discussions on pilot model project for next generation communication networks.

It is expected that multi-media will become a nucleus of Japanese information-related industry in the future. The scale of multi-media world market is estimated at several hundred trillion dollars in value in early 21st century.

We should always remind ourselves of our failure in "new media project" which we started 10 years ago with great fanfare. "Information" has its value only when there is demand for it. Even when we come to live in an age of digital, it is humans who make selection of information and that there will arise need for "good sense (decoding)" in days to come.
### Commercial Broadcasting Network in Japan

<table>
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<th>HEAD STATION</th>
<th>BRANCH STATIONS</th>
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(December, 1992 Present)