

## Housing Session

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Japan – Speaker

: ***Akiko Watanabe*** (Keiogijiku University)

GLOBAL HOME IN INFORMATION SOCIETY

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Japan has been one of the most advanced country in producing technological products with high quality value like auto-mobiles, TV sets and so on. These products have been down-sizing and down-costing so that the ordinary household can afford to purchase.

Recently, the information products such as computers, mobile telephones have been stepping at same kind of scenario as auto-mobile or TV set had. The informationalized life has been developing steadily because networked multi-media tools including information tools, audio visual machines and an organ of communication has diffused generally, especially since 1994 which is recognized as the first year of multi-media. News and media have come to focus on the issue about necessity of content's production in digital field and substance of information society frequently.

In 1995, our research group superintended by the Association of Household electric appliances in japan studied the investigation for consciousness and actual condition concerning information situation in Japanese ordinary housings.

This research was to investigate actual condition of information environment in household and how these information electric appliances are used into the actual condition. The result of the research was expected to throw out the necessity of general adjustment of information infrastructure in domestic realm.

In fact, the result found that a household has already had a lot of electric appliances and information tools. Especially, the disordered

wiring has caused serious problems. It lacks a number of electric outlet and electric capacity.

For example, each household possesses 3 telephones, 2 television sets and 2 radios on the average. One of 2 households possesses a personal computer and a game player. Those information machines mainly are placed in study room or living room. On the average more than 4 information electric appliances, such as telephone, TV. set, fax and so on, are located in the living room. In the study room, a word processor, a personal computer and telephone are mainly placed.

This result shows that the diffusion of information electric appliances has made rapid progress in Japanese domestic realm. No longer the information media is one for each household nor one for each room. Finally, information media comes to stick with a man.

The information electric appliances tend to determine new spatial use and human behavior. It is doubtful whether the existing housing types correspond to human behavior with information environment.

Then, I wonder how a man behave in highly informationalized environment. How does information activity unfolded on information environment relate with physical environment?

In order to search how a man behave and use the space in highly informationalized environment, we did field work at the media center in SFC at Keio University where I am teaching. SFC at Keio University is the first campus in field of media studies opened 1990 in Japan. For instance, the faculty of Environmental information, which is one of the departments in SFC, consists of three study fields, such as knowledge information, human environment, and media environment.

The campus is equipped with a 24-hour Campus Network System, which enables both students and faculty members studying and conducting research to have access to data, voice, and image processing. It also

directs networking with various university and research institutions not only in Japan but all over the world. The campus is just like a highly informationalized small city.

The media center is one of the center spot on campus. It serves library service including CD-ROM, AV materials and other media, CNS's administration, and development of teaching materials. The media center is not only a symbol, but also a center of campus life for the students. This is the reason why we picked the media center as an research object.

Through the field work, it is found that the student working on computer tends to do many activity simultaneously. For example, one works on computer with chatting, eating, reading the books and notes and talking on handy-phone at the same time and at the same place. A student seems to be doing different action each single second. A student also tends to walk around the space and to communicate with other students while he or she is working on computer.

Some students stay at the media center for 8 hours a day. These students spend most of the time at this highly informationalized public floors. Therefore, it is natural for students to bring life activity into such a sacred public space.

It is interesting that many students demand the media center to be open 24 hours. A man with computer may tend to work without regard to day or night.

It is also intriguing that some of the students select the working place because of the computer performance, rather than physical spatial quality. Some of the computer users only care of the comfort on accessibility and operation of the computer and network.

This let us know that obviously information environment is a part of life environment for computer workers. Happenings occurred in

information environment would directly influence on physical activity. It is to say that information environment and physical environment are in interrelationship each other.

These days, communication environment has been opened widely through network communication. It is to say that this digital network revolution may lead new way of working which may be lenient and small group corroboration, because progressive digital information environment started to make human behavior further flexible from any place and any time. Homogenization for holding information endangers a way of an existing working system. A worker with highly sophisticated networked media can work at home, on public street and anywhere they can connect on network.

On 1930's, Italian futurism already dreamed that wireless technology might lead global communicative society. Today, people starts to dream wireless imagination which allows global community to have interactive communication at real time again, since the general society has finally obtained enough technology to put hyper global society into practice.

SOHO, Small Office, Home Office, is one of indication heading to global communicative society. Recently, SOHO is getting to be popular in both USA and Japan. A phenomenon of SOHO brings dynamic change on social life and hierarchy of large corporation.

SOHO also has accelerated informationalized home. Further more, it has produced big demands in field of office machines and information network in domestic realm.

According to research from FIND/SVP, a number of worker at home instead of at office increased 50 percent in 6 years and reached 47 million in USA. SOHO workers tend to obtain the same quality of network environment at home as office does. It is said that a number of home workers will reach 110 million by 2005.

SOHO is becoming active in Japan, too. Since layoff comes serious economic stream, a number of workers becoming independent from the large corporations is increasing day by day.

However, there are some problems that their life situation is unsettled and they tend to be a subcontractor from big enterprises. In order to overcome these problems, they started to incorporate virtual corporation on network. Tied home entrepreneurs and free-lancers by internet, they try to do anything like from receiving an order to caring public welfare in cooperation. It is just like a guild on electric network. Network accessibility and capacity pushes SOHO as social phenomenon.

There is no distinction physically between office and home at home office. It is switched by an on-off operation through information environment.

Let us know what kind of a way of life we are heading to ? What does it mean that domesticity expand its realm to public toward to 21st century ?

“The field of Arte-sana”, the design project which I produced, tried to describe an image for a living space on highly informationalized life. The project was selected for the superior prize on design contest for housing at multi-media era on year of 2010 supervised by the Housing finance corporation last year.

“Artesana” means an artisan or a craftsman in Spanish. “Arte” means art, “sana” means health. It is hypothesized that Artesana is people who lives healthy in artistic life. It is considered that a man on 21st century will need to be healthy in creation as to be healthy in the flesh in order to survive intelligence war.

I assume that the informationalized society will come finally in good earnest in 2010. Hyper information infrastructure such as a high-speed network and a high-performance computer will be equipped all over the

general society. Main industry will be succeeded to have dynamic shift to information industries by that time. Society will change from playing the wealth game with materialized products as the central exchange to playing the wisdom game with dematerialized production such as information, idea, service and knowledge as central exchange.

No longer, house is a consuming box for industrial product, but an intellectual production spot. Intellectual product will be produced by collecting knowledge or information and by applying new knowledge to existing knowledge or technology.

Intellectual life based on brain work was mostly maintained by the intelligent classes or the privileged classes in the 20th century. However, because of the progress of communication media and network, how to handle knowledge and information become more democratic and further liberal. A talent for handling knowledge does not relate to classes he or she belongs to. Finally, intellectual life will open up anyone who lives in production mechanism. The intellectual life itself becomes popularized.

It is considered that the living space for a brain worker will be a synapse for intellectual production by collecting information, connecting information to knowledge and applying each other like an artist's atelier in 20th century.

Then, what will the idea of intellectual production spot for home bring to the public realm ?

The fundamental idea of living environment for human beings is communication and production. A human has already had a long history that artists and philosophers developed their thought and art production by communication, exchanging the idea and criticizing the products.

Information helps communication and production. The information comes to stick to a man. Finally, the information activity becomes a part of human activity. However, information is efficient because it is to

know one's whereabouts.

In this context, environment would not be prescribed by neither function of activity nor purpose of activity, since the informationalized physical body chats, eats, works, sleeps, thinks and does any kind of activity simultaneously.

Instead, physical presence including communication accessibility and physical pleasure becomes important factor in human environment. Flexibility of communication makes the separation of dwelling and work place ambiguous. Therefore, domesticity will extend the quality of environment to everywhere in public realm, such as office, street, and so on, as domestic realm accepts public realm like SOHO.

Public will be wholly domesticated so that anyone including elderly people, young, and handicapped can live and work without discrimination. At last, public realm will be enormous global home where is warm and safe in information society.

## Housing Session

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Japan – Reactor Paper by Akiko Watanabe.  
: Nobuko Matsumoto. Otsuma Women`s University.

Comments on "The Concept of a Global Home in an Informed Society"  
by Dr. Watanabe

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Dr. Watanabe has reported on the "tendencies which may affect the Global Home idea in an informed society." I believe that the following three issues have been raised here.

The first is the way in which various information machinery and tools have been used at home and the ensuing problems which may occur as a result; the second is the way the use of information machinery and tools may dictate human behavior; and the third is the problem which may be brought forth through the emerging "Home office Small office" concept characterized by the notion where "work can be performed any time and anywhere."

While citing various researches, Professor Watanabe explained that a widespread use of information machinery and tools at home will shift in the near future from the present "one computer family" situation to that of "one computer per room " and further to "one computer per person" and the work site at home will also shift "from the livingroom to the private room/office." In these recent changes, it has been pointed out that the at-home infrastructure was often inadequate as the place to install computer and related machinery.

The second major point where information machinery and tools may dictate human behavior was illustrated by way of a field work report. The scene of students transfixed before computers and other machinery is quite familiar to all of us and the question raised here is whether or not it is really healthy or desirable to spend countless hours gazing into computers, etc. shaving off precious moments of our lives. One impressive point was the report that those who were riveted to such machinery "tended to find performances of and accessibility to the machinery more important than the quality of the surrounding physical space."

The third point referred to the situation where "work can be done any time and anywhere" and its effect on our daily lives. "Home office Small office" are the key words describing the typical work form today and it is expected to become increasingly widespread. The issue of home life vs. work life as well as how to 'balance' public and private factors in time and space are major problems facing us in the future.



Now please let me review and comment on housing conditions and housing culture in general, bearing in mind the above mentioned issues. First, let us consider "whether or not an informed society may change our lifestyle," and, if so, what kind of impact may such a change have on matters relating to housing designs.

Would an informed society change our lifestyle? In the short run, I would answer "no" to the question. The change, if any, would be rather minimum. To date in the process of modernization we have come to establish a lifestyle characterized by "separation of the work and living sites." Work and home life has been viewed separately in terms of time and space. By way of establishing living space, we have created space for what is known as family life today. The individual spaces for family living now tend to be functionally specialized. Taking an example from the traditional Japanese housing, the space called Japanese-style room with straw mats (tatami) was used flexibly, i.e. as a livingroom during the day and a bedroom at night. However, it has been recognized that such usage is impractical in the face of modernization in residential life and improvement in living standard. The new trend was to establish more functionally specialized spaces such as the bedroom for sleeping, diningroom for dining, or livingroom for family gathering, etc. At the same time, people pursued more amenities in the space for living.

As mentioned above, today's informed society has created a situation in which one can "work any time and anywhere." This could, however, potentially distort the direction of our thinking toward separation of time and space in work life and home life. This is because the change-over of work life and home life is now possible by the mere pressing of a switch. One wonders if such a change-over is possible without separating time and space.

The notion of time/space separation has been secured after a long process of modernization and westernization. This could also be considered as the ultimate conclusion reached out of various choices. The trend will continue and the advent of an informed society, which is the theme of this seminar, will not deviate much from this overall trend. The concept being developed at Xerox Research Institute in Palo Alto, located in the suburbs of San Francisco in the United States, describes the information machinery and tools as not asserting themselves, but rather remaining unobtrusively in daily existence. Here the main character is our life and the machines play the supporting role.

Recalling the example of students transfixed before computers and similar information machinery, we realize that our own dependency on these machines is fast increasing. There is the danger, however, that we, too, might fall into the same boat as the aforementioned students. Once their way of thinking gains popularity, it is possible that the matter of spacial quality in our life will no longer remain an issue. We may be at the crossroads here and our choice depends on whether or not we ourselves hold a clear notion of "how we should live" or "in what ways we desire to live in terms of time and space."

Next, I would like to discuss housing designs. An issue here is the role information machinery and tools plays in our family life and how it can be reflected in actual housing designs. Thus far attempts have been made in pursuit of amenities in family living and we can anticipate future housing designs adopting the aforementioned concept developed by Zerox Research Institute. For example, housing designers might heed to such aspects as to why the computer CRT is silver in color, while that of the TV is black. Perhaps we should no longer regard the information machinery and tools merely as industrial products, but rather as daily necessities where they will become a harmonious part of family living in the sense of furniture. In short, future housing designs should reflect such aspects.

Assigning a proper place for the work site in the residence will become a significant point in housing designs. A key factor here is whether or not spacial distinction is necessary when a change-over in work life and family life takes place.

Finally, I should like to make additional points not yet touched upon in my discussion. One is the effect of constantly emerging new information on the housing market trends in rental and selling/buying houses as well as housing tips available in the form of software. As consumers are able to easily obtain numerous bits of information, we can expect a soar in general interest in housing in the near future. Wide uses of "virtual reality", for example, is said to be particularly effective in our own field as a tool of communication between designers and clients as they make decisions on designs. "Virtual reality" would become even more useful in due time not only in new building design, but also in the area of house remodeling and renovation.

Information machinery and tools can become increasingly useful in establishing residential medical care, in-home welfare and crime prevention systems. Their wide uses will in turn further improve housing conditions. We should continue to seek increased housing amenities as the central base of our daily life, while keeping foremost in mind the importance of securing an environment fit for human life.