INFORMATION SOCIETIES AND TELECOMMUNICATIONS

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INTRODUCTION

Social changes are proceeding toward information societies.

According to social “wave-front” analysis, information societies are introduced as one of aspects of the third wave societies. First wave societies are defined as societies that relied upon an agricultural techno-sphere. Similarly, Second wave societies are defined as societies that were mainly based upon an industrial techno-sphere (Toffler, 1980: passim).

In this paper, the aim of my study is to clarify what factors bring about the influence upon information societies and what stance telecommunications take upon information societies.

In this place, information societies define the societies that info-communication needs are enhanced and diversified, and also, enhanced info-communications infrastructure satisfies with such need. Telecommunications define the aspects of info-communications infrastructure.

A POINT OF VIEW ABOUT INFORMATION SOCIETIES

Information societies are recognized as a reflector of social changes. That is, Social changes bring about new info-communication needs. Similarly, more enhanced and intelligent info-communications infrastructure is constructed. As a result, information societies are renewed.

In this paper, the aim of study is not to consider information societies themselves but conditions that affected information societies such as the following view points.

① The development direction of info-communications infrastructure
② Key factors for information societies

① THE DEVELOPMENT DIRECTION OF INFO-COMMUNICATIONS INFRASTRUCTURE

Information societies are basically dependent upon info-communications infrastructure. Therefore, it is important which direction in this stage info-communications infrastructure goes on developing.

The trends of such infrastructure seem to be changing the following third stages (see Table 1). Firstly, stage I could be characterized as the state that telecommunications are not linked enough with computers. The former mainly offer voice service. The latter mainly are used alone. Secondly, the shift from stage 1 may be clarified as the state of linkage closely tightened between telecommunications and computers. In this stage, info-communication needs seem to be diversified more and more, various services such as corporate communications or VAN services and so on come to be provided. Lastly, the beginning of stage 3 can be seen as the beginning of the tendency to enhance network systems with intelligence or integration. In this stage, the
syntheses of info-communications infrastructure are progressed, audio-visual communication and creative info-communication activities are commonly accepted.

As a result, such stage 3 media may no longer be seen as the extension of the five senses (McLuhan, 1964: passim). Media let us rise above physical time, distance and space without consciousness, furthermore, media let us not be conscious of media themselves. Nowadays, we stand on the era of such above info-communications infrastructure that information societies toward the 21 century will be based upon.

Table 1. The stage of the development direction of info-communications infrastructure

<table>
<thead>
<tr>
<th>characteristic aspects</th>
<th>STAGE 1</th>
<th>STAGE 2</th>
<th>STAGE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>stand alone</td>
<td>network (linkage)</td>
<td>enhanced network (intelligent/integrated)</td>
</tr>
<tr>
<td>applications</td>
<td>•basic service (voice, data …) •computer &amp; terminal •personal computer</td>
<td>•private network service •VAN (Value Added Network) service •local information service</td>
<td>•ISDN (Intigrated Service Digital Network) •enhanced mobile communication service •enhanced satellite communication service</td>
</tr>
</tbody>
</table>

② KEY FACTORS FOR INFORMATION SOCIETIES

The aim of this paragraph is to show what factors information societies are derived from. Information societies are recognized as a reflector of social changes.

Such social changes seem to be led by the following factors that can be classified by three categories (see Table 2).

Table 2. The factors which lead social changes

<table>
<thead>
<tr>
<th>factors</th>
<th>social/economical factors</th>
<th>technological factors</th>
<th>institutional/political factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>details</td>
<td>•aging</td>
<td>•computer technologies</td>
<td>•tariff system</td>
</tr>
<tr>
<td></td>
<td>•quality of life</td>
<td>•digital technologies</td>
<td>•promotions/restrictions</td>
</tr>
<tr>
<td></td>
<td>•globalization</td>
<td>•optical fiber technologies</td>
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<td></td>
<td>•environmental protection</td>
<td>•radio technologies</td>
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</tbody>
</table>

③ SOCIAL/ECONOMICAL FACTORS

Macrotrends of social changes are apparently caused by the following social/economical factors. Firstly, it can be seen that aging phenomena bring about a great wave of social activities such as social welfare, medical treatment, social education and so on. Secondly, the tendency toward quality of life often brings about diversification of individual values, life styles and workstyles. Equally, increased leisure time seems usually to lead to self-realization throughout educational, recreational and social activities.

Thirdly, it may be argued that the movement toward globalization leads the range of
individual or enterprise activities more widely. Therefore, the traffic of individuals, materials and info-communications becomes frequent.

As a result, these phenomena have a huge impact upon the aspects of nationality or the border. Lastly, nowadays, many people take an interest in the environment problems, in order to protect the environment, individual or enterprise activities are under the control of this protection. On the other hand, for the sake of environmental protection, effective activities would be enhanced. As a result, according to these factors, the character of information societies is clarified. And then, information behaviors are also clarified. That is, in business, for the sake of survival, they manage to respond to the change and diversification of their markets. On the other hand, at home, for the sake of self-realization and quality of life, they manage to respond to their value and social changes.

© TECHNOLOGICAL FACTORS

Technological factors provide for a technical side where a paradigm shift of information societies is proceeding. That is, in order to satisfy of diversified info-communication needs, these greatly contribute to the development of info-communications infrastructure. These are computer technologies, digital technologies, optical fiber technologies, radio technologies and so on. Firstly, computer technologies enable downsizing and distributed processing. Furthermore, these enable individual terminals to possess intelligent functions. Secondly, digital technologies enable all data to convert into “0” or “1” signal. Moreover, these are able to deal with processing, storage, manipulation and editing quite easily. Thirdly, optical fiber technologies enable transmission capacities to increase dramatically. Lastly, radio technologies enable more people to communicate whenever and wherever they please.

As a result, these factors promote the convergence of communication and broadcasting. Furthermore, these technologies that enhance the possibility of multimedia services have a great impact newspapers, books, tapes, records and so on. On the other hand, according to technological innovation and diversification of info-communication needs, info-communications infrastructure tends to change carriers or operators-oriented infrastructure into user-oriented infrastructure.

© INSTITUTIONAL/POLITICAL FACTORS

Institutional/political factors have the function of adjusting what/how information societies develop. These are tariff system, promotions/restrictions and so on. Firstly, it is very important whether appropriate service rates are provided by carriers or operators. Therefore, if such approach is applied adequately, info-communications marketplace is activated and the principle of competition is assured. Secondly, it is also very important to assure fair competition and to strengthen international competitiveness. For example, according to accommodation toward the convergence of telecommunication and broadcasting, marketplace will be activated. Furthermore, according to the programme of EU telecommunications policy, Open Network Provision is the attempt for the future competitive market in Europe (Berden & clements, 1995: 280).

Nowadays, info-communications field shifts to competitive marketplace. It tends to expand from domestic marketplace to global marketplace. And then, in order to gain the satisfaction of diversified info-communication needs and the enlargement of international competitiveness,
such institutional/political factors become extremely important strategic factors.

CONCLUSION

In this paper, the aim of the study is not to consider information societies themselves but conditions that affect information societies such as the development direction of info-communications infrastructure and key factors for information societies.

With regard to the former, nowadays, we stand on the era of info-communications infrastructure that let us not be conscious of info-communications infrastructure itself.

With regard to the latter. We have seen that there are three factors that information societies are derived such as social/economical factors, technological factors and institutional/political factors. Firstly, social/economical factors clarify the character of information societies. The change and diversification of information societies have an impact upon information behaviors. Secondly, technological factors provide for a technical side where a paradigm shift of information societies is proceeded. As a result, info-communications infrastructure tends to change carriers or operators-oriented infrastructure into user-oriented infrastructure. Lastly, institutional/political factors have the function of adjusting what/how information societies develops. Nowadays, info-communications field shifts to competitive marketplace that is not only domestic but also global. And then, institutional/political factors become extremely important strategic factors.

Information societies themselves suffer from problems such as privacy, the assurance of security and reliability, lost of jobs and so on. However, such shadow points of information societies are not treated. I intend to study such problems as my future task.

BIBLIOGRAPHY

