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Technical Aspects Of Information Revolution:
The Korean Experience

By

Auh Taik-Sup
Technical Aspects of Information Revolution:
The Korean Experience

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During the past two decades, Korea has drawn considerable worldwide attention due to the exceptionally rapid and extensive industrialization. The economic leap has been so impressive that it has generally overshadowed the accompanying social and political changes in the eyes of other nations. These changes are intriguing, however, for the social scientist. While the economy has blossomed into a giant of production, the government has retained its paternal position both economically and socially. At the same time, many Koreans appear to be shunning the traditional role of submissiveness. Such attitudinal change is to be expected given the increased influence of western notions and the spread of affluence which have accompanied Korean industrialization. Capitalism, democracy, and Christianity have been theoretically introduced in Korea and although these ideas have been modified since their introduction, the fundamentals remain: individual and material achievement are concepts which have found a home in the Korean heart. The result is a nation which functions efficiently but not always smoothly. Certain amount of tension exists among political, economic, and social sectors.

In this atmosphere of tension and conflict between the affluent and the poor, the politically privileged and the under-privileged, Korea now is embarking on a new stage of development, popularly known as Information Age. Mixed emotions of hopes and fears are shared among those in the government and in the academic community as they contemplate about what kind of benefits (harms) the Information Revolution will bring to the Korean people.

Information revolution, a familiar concept in the advanced societies, is still in an embryonic stage in Korea. New communication technologies—broadband cable, videotex, teletext, electronic mail, and mobile
and personalized communication—are being thoroughly examined for their technical feasibility and social desirability. Playing an exclusive role in the policy-making process is the government, notably the Ministry of Communication. The ministry is currently working on an integrative and long-range communication policy formulation, which involves among others such issues as whether the new services are technically feasible, who should provide the new services, and under what type of control.

The dominant features of communications policy-making in Korea are an insistence on political control and an underlying paternalistic attitude.

Present Government Communication Policy.

Within any nation, the relationship between the government, the media, and the people can be cursorily described as authoritarian, commercial, paternal, or democratic. Which category applies depends upon two factors: who controls the media and for whom the media performs. Schematically, the categories relate as follows:

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An authoritarian system is one under which the government maintains control over the media to its own benefit. Media policy is clearly and strictly defined. A commercial system is based on press control for
its own benefit; to further the power of media within a society, the media promote their own image. If the government controls the media in order to protect the public, the system is paternal. In this case, the scarcity of media channels, the impact of media on the individuals within a society, and the intrusive nature of the media are all taken into consideration by the policy-makers in government. Lastly, media systems which are free of government regulation and which consider public good the concern of the media are democratic. The Korean government claims to play a paternalistic role with regard to the Korean media. Others disagree. They claim that the government role is authoritarian.

The Korean communication policy stems from the official perception of the state of the nation. Theoretically, the Korean authority considers the nation to still be in the process of modernization. Given this state, there is an urgent need for the media to facilitate the achievement of national integration and development by means of penetration and identification.

Current tenor of media-government relations.

The relationship between the Korean government and the press has gone through a number of changes in the past century. In the late 1800s, Korea opened its doors to western influence. The vitality of western culture and multitude of troubles in Korean society led the Koreans to hold their own political and cultural traditions in contempt.
The press took upon itself the task of drawing the population together under a new and revitalized nationalism. During the ensuing Japanese occupation, the press remained attentive to the national consciousness and became a strong force in the drive for independence. With the conclusion of the occupation in 1945, the Korean press modeled itself after the libertarian concept of the American press. The authoritarian regimes of the 1950s and the following military rule of the 1960s led to the establishment of a harshly critical and confrontational press. The subsequent reduction in U.S. financial involvement in Korea and the eventual calming of Korean politics, eased the tension between the press and the government. Gradually, the press became more sympathetic to the government and more concerned with the social and economic revitalization of the nation. It was at this time that the Park regime undertook the initial steps of penetration and integration, leaving the press basically in government hands.

The current tenor between the government and the press is both good and bad. The government continues to seek full-scale participation from the press in the maintenance of national integrity. The press is aware of the need to promote social stability but also recognizes a need to place a check on government power. Officially, the press is a partner to the government and dissension is wrong. From the press point of view, the role of partner is limiting and the restriction of information is harmful to the public.

Although this ideological rift is omnipresent, direct conflict between press and government does not occur.
Government management of media.

The Korean government manages the media through both structural and regulatory means. Structurally, the media is limited in range and in voice by a series of resolutions adopted with the passage of the Basic Press Law in 1981. Under this law, all broadcast stations and publications must obtain license from the government to function. No private ownership of the broadcast media and no cross-ownership of various forms of media is permitted. The number of papers and broadcasters is limited through licensing and their range is now restricted. The government directs all forms of point-to-point communication and formulate media policies. Much of the policy decisions are made behind closed doors without the participation of interest groups. The legislature has little or no input in the communication policy making process. Broadcasting Commission, and FCC-equivalent, is an independent organ which is empowered to "oversee affairs relating to broadcasting." The KBC, however, has no regulatory authority as the FCC does.

Professional associations.

There are many professional organizations involved with the Korean media. These include the Korean Newspapers Association, Korean Journalists Association, Korean Press Ethics Commission, Press Arbitration Commission, IPI Korean National Committee, Korea Copy Editors Association,

Generally, these associations promote their own interests but have little other effect. They do not play the role of arbiter between the government and the press.

Linkages with the business community.

Monopoly of the press by businesses is effectively blocked by the Basic Press Law. Monopoly could take one of three forms: 1. chains or networks 2. cross-media ownership 3. media conglomerates. The first possibility is prohibited by a clause in the Press Law which outlaws chain ownership in the same medium. The second is also directly prohibited. The third possibility was blocked with the media restructuring of November 1980. At this time, all businesses with media outlets were forced to divest themselves of their holdings.

Many newspaper companies, however, are not completely free of business influences. These include a variety of interests outside of journalism such as hotel management, recreation centers, and the like. Through these channels the press exerts an influence on the business community.
The business community also exerts control on the press. 60% of newspaper income emanates from advertising (the remaining 40% from subscriptions).

A balance, then, exists between the press and the business community. Government restrictions limit control of one over the other but interaction does occur and each does affect the other.

New Media Development Policies

Type of media services

Presented on page 8 is a timetable for the deployment of new media services as worked out by the Ministry of Communication.

A quick examination of the list of new media services and their deployment schedule would allow one to conclude that the entire plan is rather too ambitious or well ahead of time. Compared with other developing countries, Korea certainly ranks high on "informatization readiness" scale. The reason behind this is relatively simple: the 1986 Asian Games and 1988 Olympics to be held in Seoul. Billions of dollars are to be apportioned for the installation of International Broadcasting Center (IBC), deployment of teletext services as well as the construction of Olympic stadium. Advocates of fiscal frugality challenge the wisdom and adequacy of such an "extravagant" government spending on grounds that the bulk of communication facilities will become obsolete by the time the international festivities are over.
Communication policies for the future

Communication policy issues now facing the Korean government essentially boil down to the question of (1) who is going to develop (2) what types of new media services (3) under what conditions and (4) for what purpose.

As briefly mentioned earlier, the most salient features of new media policies in Korea is government monopoly in ownership and management and an underlying paternalism in content control.

Traditionally, the business of point-to-point communications -- mail, telephone, telex -- has been run as an integrated government monopoly. With the advent of new communication technologies no significant change is anticipated of the monopoly structure.

The Korean government is expected to maintain the present monopoly structure, with the Ministry of Communication in charge of the carrier aspect of the information infrastructure and the Ministry of Culture and Information in charge of content. Communications policymaking likewise is fragmented among a variety of ministries as if FCC were divided into the Office of Policy and Opinion and a technical division. As the technology of new media becomes increasingly blurred, there is a growing need for a coordinating mechanism to draw them together.

The Korean government is seriously considering the issue of integrating in a comprehensive fashion governmental competence to deal with communication policy. However, no concrete plan is yet to be announced.

The present plan calls for a predominant government role in the installation of communication facilities, with only a minor role delegated
to private sectors. Specifically, the media development plan is so designed as to give the government an exclusive right to construct major communication centers such as cable TV stations, videotex service centers, etc. Private industries are to produce reception equipments including telephone sets, VTRs and home computers. The manufacturing of materials for communication links is to be subsidized by the government. Here again, one can detect the government's reluctance to give the communication industry an upper hand in the new media business.

On the question of ownership and management of the new media including cable TV, videotex and teletext, the present plan is to put them under the tight government control at least at the initial stage of the deployment.

The government strongly feels the need to dampen enthusiasm for full-blown commercial cable television. At least three electronics firms in Korea -- Gold Star, Samsung, and Daewoo -- all have ambitions to become not only producers of communication hardware but also program makers and transmitters. However, there is not a single person in Korea who believes that the government will issue these companies or any other private sector a license to operate new media services. The government, it seems, has learned from past experiences that a privately-owned commercial medium is too heavy a burden for the government to bear. Because the government monopoly is easier to control, the Korean government is expected to maintain it at least in the early stage of information society. Private sectors are likely to hold a portion of ownership and managerial right on an incremental basis.

Newspaper publishers are wary of the encroachment of the new media
and came to demand a prescriptive right of participation in ownership and management of the electronic media. Such a demand, however, can not be met unless the present Press Basic Law is revised so as to allow cross-media ownership.

On the financial aspects of the new media services, advertising revenues will account for a lion's share of the income with little or no government subsidies.

Perhaps the single most important policy issue revolving around the new media services is the question of content. As discussed elsewhere in the paper, the Korean government is least likely to allow the new media to become a forum for divergent political views. Consideration of commercial application predominates the government thinking of the new media services. The new media -- cable TV, videotex, etc. -- when and if in full operation will in all likelihood be filled with a lot of light entertainment fare and a flood of commercial messages and nothing else.

Audiences will likely be fragmented appreciably by the use of television sets for teletext, TV games, video discs, television-computer links and the like. All of these media at least in theory could provide access to all sorts of social, cultural, and political views. When and if this happen it could dilute the scope of influence of the existing channels of political communication which at present fall within government monopoly. It is for this reason that the government would not allow cable, and for the matter any new media, to become carriers of political content.

However, the abundance of choices which will be made available to the audience is likely to force the government to modify its thinking
of monopoly communications structures. If the public can obtain what it wants from a wide variety of sources, then the government will have great difficulty in controlling them.

But the common-carrier treatment of the new media is not a realistic dream.

Selected Policy Issues

Information and democratization

Whether all of the information which is promised by new media would be necessary is an empirical question. A more fundamental question remains: is man prepared to become homo informaticus? In the end what really counts is the quality of information rather than the quantity of information. Even if communication hardware becomes available in sufficient quantity for people to communicate one another, it does not guarantee a free, unhindered flow of information and ideas. Supply of television sets near to a saturation point did not make people wiser and better educated, nor did it convert a totalitarian society into a pluralistic society.

In an open society decisions about both hardware and software development are openly arrived at by market competition. In a closed
system channels of political communication are at the whim of the
government in power: the regime determines at its own will the quantity
and quality of information to be circulated in and between the societies.
A plain truth about the totalitarian system is that channels of political
communication simply do not exist or, when they do, they are effectively
closed down to opposing views. Optimists predict that the new technology
will increase the amount of news, political news in particular, flowing
within countries and between countries through improved communication
links. But little has in fact been achieved in this dimension. As
Wilson Dizard points out, communication and information policy has
economic and political considerations as well as technological aspects:

Microelectronic technology is, for the present, the
driving force among these factors, with its active promise
of a new era of abundant resources. Economics is next, as
industry demonstrates its ability to transform technological
capabilities into marketplace realities. The most critical
side of the triangle is the political one. Here is where
understanding and actions are weakest, threatening the chances
that viable strategies for dealing with the new environment
will emerge. The choice, in simplest terms, is whether
resources adequate to meet our needs can be assured through
a linear extension of past political and social practices
or whether a new set of strategies is called for. 1

Finding from diffusion studies typically demonstrate an S-shaped
curve to illustrate the rate of diffusion (as defined by percentage
of "knowers" or "adopters" of an idea or practice) plotted over time.
That is, in the earliest phase only a few people are adopters or knowers,
and the cumulative curve representing this group builds very slowly over
time.

1. Wilson P. Dizard, The Coming Information Age (New York: Longman,
1982), p. 27.
Gradually, the diffusion curve accelerates: the greatest number of new adopters or knowers per unit time occurs when about half of population has reached that status. After this, the curve decelerates, until finally only a few additional adopters or knowers are being added per unit time.

![Diffusion Curve and Deviations](image)

**Figure 1: Random S-Curve and Some Types of Deviations from It**

A empirical S-curve, according to Steven, H. Chaffee, is simply evidence of an absence of constraints and a randomness of interaction within
the system population under study.  

Chaffee points out general patterns of deviation from the normal ogive: (1) Diffusion falls far short of 100% of the population.

(2) S-curve accelerates more (or less) rapidly than might be expected under the null condition. Two cases should be distinguished here, those in which diffusion proceeds, respectively, with greater or less speed than the S-curve predicts.

An important aspect of Chaffee's model is that the rate of diffusion can be either constrained or stimulated by the source, which in the case of authoritarian states is invariably the government. There is very little that the audience or people can do about this. How then does the diffusion model apply to the concept of political knowledge and knowledge distribution in an information society? In a nutshell, diffusion of political knowledge in an open society would resemble an S-curve (or random model), while in closed societies the rate of diffusion would considerably be retarded by source-constraints. The source constraints consist largely in content control: the government is not inclined to utilize new media as political forum. Instead, the new media are expected to carry an overabundance of entertainment programs. The vitality and importance of each and every medium is weighed against commercial potential for business application. The end result of all these is not millions of "knowledgable" people but "intoxicated" people. The present thinking of the policy makers is by no means an "informed citizenry" but a "profitable business."

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Korea and the new information order

A free flow of information between nations has been a widely sought objective of the free world countries. Of late, however, a reversal of this outlook is becoming increasingly apparent in many countries. Critics of the 'free flow' theory argue that an unhindered flow of information, much like the free trade in the earlier times, benefits the strong and hurts the weak. It is also feared that messages originating from the more affluent and culturally permissive societies tend to corrupt the minds and souls of the receiving nation.

In recent years Korea too has become entangled in the debate over the issue of 'cultural invasion' from outside. When the American Forces Korean Network (AFKN) announced its plan to air U.S.-produced programs by means of direct satellite broadcasts (DBS), many Koreans expressed their concern over the ill effects that such an undertaking might have. For the same reason, the Japanese use of DBS was met with strong opposition in Korea. It was feared that the DBS system, although it was ostensibly intended to service the Japanese island, could easily penetrate into the Korean peninsula. The fear is that uncontrolled DBS would facilitate indiscriminate broadcasting of television and film programs that might insult the Korean culture and injure her security. An unsatisfying response was that the U.S. media would not knowingly behave in that fashion. A more technical answer was that the DBS 'footprint' can be designed to carefully circumvent broadcast signals into nation concerned about such "invasion."
Well aware of the depth of national sentiments, the Korean government has tried to deflect the argument into a discussion of technological feasibility. In order to receive broadcast signals directly from DBS, it was claimed, a specially designed antenna would have to be equipped in every home. Since such communication gear is not available in the domestic market anyway, direct broadcasting was no cause for immediate concern to us.

Thus the Korean government fell short of resolving the cross-boundary issue on a more fundamental principle of prior consent, that is, sovereign nations have a right and obligation to control the incoming flows of communications. Critics of the government maintained that the news and entertainment programs from the sky-borne satellites be subjected to the same rules and regulations that are ordinarily applied to the media products - TV programs, films, books and magazines - imported from abroad. They argued Korea should have raised the question, at the negotiating table, of the effects of exposure of the Korean children to cartoons, commercials and the likes of "Starsky & Hutch," "FBI," and Three's Company."

The argument over the third world information order is a multivalent debate involving ideology and political situation. Most of the developing countries feel very strongly the need for informing their populace as part of the development process and regard the mass media as one of the most powerful tools for accomplishing the objectives. But at the same time they are afraid of their citizenry being swamped by the flood of 'undoctored' news and news analysis which arrive ceaselessly from the developed countries.
It is a plain fact that many third world countries restrict freedom of the press in the name of 'responsible' reporting, 'objectivity' and the like. They find it difficult to govern their people without the hindrance of a critical press and the temptation for a government to apply its own value judgments to what appears in the media and to suppress criticism is considerable.

New media and quality of life

Communication policy-makers emphasize their concern about the new media in relation to the quality of contemporary life. A historical perspective might help us to place communication policy in context. Communication has clearly been a part of every civilization in every stage of social development.

At the agricultural stage in development, the entire social energy is concentrated on economic growth. Playing a central role in the nation-building process is the government and political institutions. These agencies provide new technologies so as to renovate production structure. Mass communication at this stage is used as a means of delivering new information and knowledge to disseminate national policy and mobilize people to participate in the national task. It is all too natural that the media are held under tight grip of the government. Mass communication policy at this stage revolves around an effective use of media by the government agencies to solicit people's participation in and support
for various reform movements. Policy issues include agricultural reform, family planning, and national publicity.

At the industrial stage of development, the emphasis is placed on fair distribution, the quality of life, and participation of interest groups in the policy making process. The mass media at this stage are encouraged to provide each and every citizen with an opportunity for education and social activity, and to arbitrate social conflicts among interest groups. Unlike growth stage, mass communication at the distribution stage can and should reflect public opinion in the formulation and implementation of national policies. Private ownership of the media becomes a commonplace rather than an exception.

A major concern of communication policies, here, concerns itself with how much (or to what degree) individuals or interest groups express their own point of view on various societal issues through the media. That is, the degree of public management of media or access right can be examples in this respect. Media performance is measured against the standards of accuracy, fairness and objectivity in reporting.

The third and final stage in development, post-industrial or information stage is characterized by the new media technology and the rich variety of information that they have to offer. In this stage, man can be released from production work and enjoy themselves in their privacy. The main issue here is how man can spend time enriching their personal lives. And the concept of development in this stage can be connected with enlargement of self-reliance, expanded opportunities,
and vitality of intellectual activity.

In order to achieve these goals the communication media are expected to provide people with various information, opportunities for self-realization, and to enlarge their life-space. Policy issues include what types of mass communication exist (e.g., DBS, videotex, etc.), in what ways media should be managed, and, as a result of those media, how social structure or life pattern would change. Here, we must pay attention to the social stratification in accordance with the individual taste and interests. Whether or not the integral society can survive can also be assessed.

This society requires individual's intellectual ability to systematically select important information in a flood of information, because the quality of each individual's life can vary enormously according to the such an intellectual ability. Possible problem facing this society is the encroachment of privacy. That is, personal information collected and used by someone else can cause serious social problem. Finally, a new form of dictatorship can emerge manage or control overall information systems. The emergence of such dictator, actually, is possible in the future such as "Philosopher" in Plato's Republic, or "Big Brother" in George Owell's novel, 1984.

Social development requires our wisdom to minimize adverse effects and to lead mass media as our loyal servant. To this end, we need a clear concept of development. In the case of Korea, that concept, mixed with nation building as a growth stage, and welfare-society as a distribution stage, and enlargement of mass media as an information society, comes into our eyes as a complicated form.