

SATELLITE COMMUNICATIONS AND DEVELOPMENT

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THE CONTROVERSIES

Two key controversial issues affect the Third World's position regarding satellite communications : the control over unsolicited signals broadcast from space and the allocation of frequencies and geostationary slots.

Direct satellite broadcasting has raised the problem of « prior consent ». The developing countries have since the early 1970's undertaken efforts to have the principle of « prior consent » accepted and eventually to have it formulated as part of an international agreement on DBS. This controversy has clearly been lost by the developing countries. There is no international treaty on DBS and there is unlikely to be one within the foreseeable future. Even the notion of « prior consent » has been abandoned in international politics and has been replaced by the softer term « prior consultation ». The latter certainly represents a milder regulatory regime than the original concept. With the other controversy, the battle over the allocation of such natural resources as frequencies in the electromagnetic spectrum and orbital slots, the developing countries fared somewhat better. The resolutions at the WARC 1977 came a long way to meet the developing countries' demands. However, lacking the technological and financial resources to make operational use of these concessions, the victory remains largely symbolic.

In conclusion : in two major controversies the developing countries lost one completely and won the other with mere symbolic value.

PROMISE AND PERFORMANCE

Satellite communications has been proposed to the developing countries with the promising perspective of improved communications for both point-to-point messages and mass distribution in countries with a paucity of terrestrial communications and where the installation of underground

cables and micro-wave relay stations would create insurmountable financial burdens.

It remains to be seen, however, in how far the actual performance of satellite communications lives up to the promises.

Political leadership and technological elite have often suggested that the advent of satellite communications would resolve the crucial problems of development : malnutrition, starvation, poverty, poor health, and lack of education. Such expectations would seem to be based on the wrong assumptions, however. Only if one accepts that these problems are communications problems can they be resolved through the application of improved communications. Although communications certainly plays an important role in these problems and the improvement of communication facilities is obviously highly desirable, the perennial plight of the developing world is not primarily caused by poor, inadequate communications. Development problems are the problems of a political and economic system that nationally and internationally continues to maldistribute the world's resources. The root causes are hidden in the exploitative and neocolonialist power structures that characterize the majority of developing societies. These systemic problems cannot be resolved with the introduction of more and better communications.

It is a rather common claim that the introduction of modern communication technologies will fundamentally change existing social structures. Such technological determinism has prevailed in much of the development debate. Particularly the adherents to the so called «modernization paradigm» believe that the introduction of modern technology could drastically enhance the process of development through its contribution to the creation of new social structures that would adequately respond to the needs of the developing countries.

The determinists have, however, chosen the wrong order. Communication technology is designed and applied to meet those needs that are defined as important by the existing social structure. Just as technology at large is a response to the hierarchy of social needs as it is determined by the existing social order. It is this order that will integrate and guide the development of the technology. Therefore, communication technology will rather reinforce existing social structures that transform them.

Studies on the deployment of technologies, such as television and satellite communications, in developing countries have suggested that the primary beneficiaries are foreign and national elites, that intended development objectives were not achieved, that unforeseen secondary effects occurred for which no adequate institutional context was present, and that the capital intensity of the new technologies would lead to serious balance of payments problems.

A concrete experiment with satellite communications testing its promises has been the satellite instructional television experiment (SITE) in India. The experiment which was launched in 1975 had among its objectives the improvement of family planning, of agricultural practice, of health and hygiene as well as a major contribution to national integration, to mass education and teacher training. As Indian social scientist K. E. Eapen has commented, «The assumption that a professionally competent team of communicators could effectively put across messages, if only the necessary technology were at their disposal, did not prove true on the touchstone of SITE. The many persuasive arguments in support of complex delivery systems for effective communication purposes in essentially illiterate societies did not stand up to this experiment ... SITE exploded the myth that facilities, if made available, will be used in the way that is intended. When new media are introduced, they appear to fit into existing communication and behavioural patterns rather than radically altering them».

On balance the use of satellite communications in India would seem to reinforce the power of the centralized state bureaucracy, strengthen the dominance of the elite languages, English and Hindi, and confront the rural areas with the lifestyles and commodities of a consumer society out of their reach. This contribution to the frustration of rising expectations could in fact aggravate one of the most serious problems of many developing countries : the desintegration between the urban, modernized elites and the deteriorating rural masses.

POLICY AND TECHNOLOGY CHOICE

The overriding motive in policymaking as it relates to the choice of technology seems to be the syndrome of «technology opportunity». This syndrome represents the attitude that since the technology is available, it should be purchased and utilized. Thus policymaking is driven by technological development and fails to adapt technology to defined social priorities.

This is corroborated by the fact that in most cases the actual technology choice is open to very few actors only. The choice of communications technology can most adequately be described as the «scrambled eggs» model.

This refers to breakfast sessions during which small cabales of industrial and governmental elites, while having their scrambled eggs, make farreaching technology choices. In such cases there is evidently no proper assessment or elaborate consultation; or comparative shopping.

An illustration of the «scrambled eggs» model provides the Mexican case of the national satellite system.

After three years of negotiations among a restricted number of agencies (such as the government executive, the secretariat for Communication and Transport, and the commercial television company Televisa) a public announcement was made on March 24, 1983 that as from 1985 Mexico would have a national satellite system called Morelos. On June 1, 1983 the secretariat for Communication and Transport announced that the Morelos system — initiated and operated by the federal government — was contracted to Hughes Communication International for the manufacturing of the satellite, to McDonnell Douglas for the rocket and to NASA for launching. The approximate costs for placing and operating the satellite would be US \$ 140 million. The Morelos system would be used for television, radio, telephone, telegraphy, telex and private datanetworks.

Characteristic of the whole process were the following elements :

- there never was a comprehensive analysis of needs and possible applications ;
- there was no full consultation with all the potentially involved parties (such as future users and those affected by uses) ;
- there was no precise calculation of the additional costs of operating the earth segment of the system ;
- the Mexican technicians would have to be trained abroad and would remain low-level operators ;
- there never was the process of tendering as formally prescribed by the federal law on acquisitions ;
- other offers (as by RCA or France) were not made public and the choice of Hughes was not publicly justified ;
- the option of upgrading the existing microwave system was not seriously contemplated ;
- the potential vulnerability of the Morelos system (allowing the U.S. Department of State, Hughes company and Televisa to control Mexican telecommunications) was not seriously debated ;
- the price was too high, a comparable system could have been procured on a competitive market for less than US \$ 100 million.

«Scrambled eggs» choices hamper in many developing countries the responsible introduction of appropriate technologies.

INTERNATIONAL REGIME

During the 1970's an international political debate emerged on the issue of international communication.

As from 1973 the group of non-aligned countries protested against the disequilibrium in the exchange of information between the North and the South. The global one-way traffic controlled by few Western transnational information companies began to be criticized by the non-aligned movement

as an instrument of cultural colonialism. This was perceived as an effective successor to the earlier territorial mode of colonialism.

UNESCO, the United Nations Educational, Scientific and Cultural Organization became the most important forum for this debate. The debate was largely focussed on the demand by the developing countries for a New International Information Order (NIIO).

Already in 1970 the minutes of the UNESCO General Conference read «Delegates from a number of developing countries stressed the need to ensure that the free flow of information and international exchanges should be a two-way operation. They asserted that the programme must continue to emphasize the rights of less privileged nations, to preserve their own culture». In a first phase (1970-1976) the debate was characterized by the effort to «decolonize». In this period political and academic projects evolved that fundamentally criticized the existing international information order and that developed proposals for decisive changes. Several years of declarations, resolutions, recommendations and studies converged into the demand for a New International Information Order (NIIO). With this concept (formally recognized by non-aligned heads of state in August 1976 on Sri Lanka) a clear linkage was established with the proposal for a fundamental restructuring of the international economy that was put forward in 1974 (the New International Economic Order, NIEO). Although the precise meaning of the NIIO was not defined it was evident that its key notions were «national sovereignty» and «cultural autonomy». The NIIO reflected the non-aligned aspiration to an international information exchange in which states that develop their cultural system in an autonomous way and with complete sovereign control of resources fully and effectively participate as independent members of the international community.

From 1976 the Western news media began to take a critical attitude towards the demand for a NIIO. The majority of international mass media expressed their opposition against the non-aligned initiative. In various commentaries the following points were recurrently made :

1. There is no relation between the demand for a new economic order and a new information order.
2. The core of the problem of disequilibrium lies in the Third World itself and is caused by paucity of technical and financial resources.
3. The NIIO proposal is authoritarian by nature and under the pretext of aiding the Third World it attempts to undermine Western liberties.
4. Proposals for reformation coming from Third World countries are necessarily influenced by governments and are therefore unacceptable.
5. The NIIO is basically inspired by Soviet interests.

The 1978 UNESCO General Conference was a turning point in the debate insofar as at this meeting the hostile opposition towards the idea of a new order was softened. There began to be almost unanimous acceptance that Third World countries had justifiable complaints and that concessions must be made by the industrialized states. The original formula coined by the non-aligned movement, NIIO, was replaced by the proposal for a « new, more just and effective world information and communication order » NWICO. According to the interpretation of United States Ambassador John Reinhardt at the 1978 General Conference this new order would require, « a more effective program of action, both public and private, to suitable identified centers of professional education and training in broadcasting and journalism in the developing world ... (and) ... a major effort to apply the benefits of advanced communications technology ... to economic and social needs in the rural areas of developing nations ».

The new order (NWICO) that was now acceptable to all UNESCO member states was mainly interpreted as a programme for the transfer of knowledge, finances and technical equipment. The problem of the international information structure was being reduced to mere technical proportions. In response to this an intergovernmental programme for support to the development of communication was launched as a Western initiative in 1980 : the International Programme for the Development of Communication (IPDC).

In the 1980's the compromise in which the developing countries conceded their political demands in exchange for Western aid did turn out not to work. The IPDC did not really take off. Western suspicion of project proposals coming from the South remained operative. The antagonism on the issue of international information figured prominently in the confrontation between UNESCO and the US and UK governments in 1984 and 1985.

For the debate on satellite communications and development the following features of the NIIO debate are pertinent :

1. Central to the debate is the interpretation of a crucial human right : the right to freedom of expression (Universal Declaration of Human Rights, 1948, article 19). According to this right the international information flow should be a « free flow ». The UNESCO constitution (1945) had termed this the « free exchange of ideas ».

The developing countries while accepting the principle of freedom of information have demanded that the free flow should be a balanced flow. Freedom should not be restricted to a handful of powerful information companies but a really free flow would enable all nations to participate. Moreover, the international information flow should not almost exclusively concentrate on events in a few elite nations. The distorted worldview of the international news should be balanced with a more realistic account of events in the world, including the Third World.

2. The debate on a « free and balanced flow » brings UNESCO from a period of predominantly technical assistance to communication projects in the Third World to a phase of ideological conflict. This leads to the accusation offered by Western diplomats and journalists that UNESCO is unduly « politicized ».

Already early in the history of the United Nations system it has been a rather common claim among Western governments and media that the specialized agencies of the UN should be technical rather than political. Political issues are to be dealt with by the UN General Assembly, whereas the other agencies, and among them UNESCO are supposed to provide technical assistance to the implementation of the normative principles elaborated by the political body. The accusation of politicization is brought against the specialized agencies whenever they tackle issues that are seen as immaterial to their functional mandate.

In the field of information a division of labour emerged in the early stages of UNESCO's existence. Largely as a result of the proceedings at the 1948 Conference on Freedom of Information the UN became to be seen as responsible for news and freedom of information, whereas UNESCO would deal with the improvement of technical conditions for news production and exchange and promote the free circulation of educational and cultural materials.

This division of labour is remarkable in the light of the mandate of UNESCO that according to its Constitution is basically political. Article 1 of the Constitution says that the organization is to contribute to peace and security by promoting collaboration among the nations through education, science and culture and the agency should, « collaborate in the work of advancing mutual knowledge and understanding of peoples, through all the means of mass communication ». Therefore, it would seem more appropriate to state that in this division between political and technical functions UNESCO was « de-politicized » and in fact became « technicized » against its mandate.

The technicization period lasted throughout the 50's and 60's and made UNESCO into a forum of consensus. In the 70's however the non-aligned countries recognized that the technical assistance did not alter their dependency status and in fact further eroded their sovereignty. They therefore opened the debate on the need of normative standard-setting regarding the mass media.

A previously consensual arena became politicized and the Western bloc was confronted with a majority that could outvote it on very principled issues.

CONCLUSION

It may well be that the political debate on the new international information order reached a deadlock and it may well be that many people got tired of the « ideological controversy ». Yet it has to be confronted that even if the discussants have left the arena, the problems remained. All the major issues of international information imbalance, as addressed by the non-aligned summit at Algiers in 1973, are still unresolved. It is highly unfortunate that the majority of Unesco member states were intimidated by the small Western minority that promoted the exchange of a « politicised » debate for a programme of technical assistance. With the benefit of hindsight we have to establish that the accusation of Unesco's « politicization » was ill-founded. What actually happened was that in the acceptance of a mainly technical role Unesco was unduly and even unconstitutionally « technicised » and « de-politicised ».

Moreover, it has become increasingly clear that the very Western nations that supported the establishment of the International Programme for the Development of Communication (IPDC) have been instrumental in undermining the development of a genuine multilateral fund for communication development.

It is therefore urgent and opportune to strive towards a solid and comprehensive international treaty on communications in the framework of international human rights law.

This regulatory instrument on international communication, and it is appropriate to be reminded of this in 1988 at the 40th anniversary of the Universal Declaration of Human Rights, would represent important progress in the effort to implement this common standard of achievement of the world's nations.

The world's communications problems are not primarily technical issues and as a result they cannot be resolved by mere technocrat measures. A lasting resolution will have to be found through political and legal debate, however complicated and unnerving this may be.

DISCUSSION

Reaction of Dr. A. Noll on the exposé of Prof. Hamelink

We should not go into the whole ideological background which Prof. Hamelink's intervention prompted us to do.

The subject has to be brought back from the subject of the Third World and the free flow of information to what good can telecommunication do for the Third World. It is not a convincing argument to say that we had the rural satellite experiment in India, that it was abused and that the rural people got the wrong information. The matter was that telecommunication played its role ; it gave the message. That the content of the message was wrong has nothing to do with the efficiency of rural telecommunication networks which can be used for education. We are now, with ARABTEL, starting technical assistance programs for the whole African continent, using this kind of network so discredited by Professor Hamelink. These programs are no longer financed by UNDP as much as in the past. Now, governments are pooling their efforts, and finance by their own proper means the projects of technical assistance which they want ; but they work via ITU and are going through our security. We choose and thereby turn on some pressure. In defending the Third World we must take into account that telecommunication can help and has shown to be able to help. The developing countries are using telecommunication all the time whereby these countries are profiting tremendously.

Finally it should be said that the free flow of information is important but that it is a value of the West and not of the developing countries.

Question of Mrs. Osorio to Prof. Hamelink

Talking about transfer of technology and the problem of dependency, a few years ago there was a program of I.P.S. (International Press Service) directed mostly towards North-South co-operation : the « Technical Information Pilot System » (TIPS). What happened to this project ?

Answer of Prof. Hamelink

As it was suffering from a lack of funding, the TIPS-project which was launched by the UNDP has suffered a great deal of problems. It is easier

to do North-South technological transfer than to get technological co-operation among the developing countries for all kinds of historical and political reasons but also because of underfunding. Western governments should subsidize such projects without all the time wanting to sit in on these projects. For simple projects in the Third World people are quite capable to do all kinds of things amongst themselves rather than all the time sticking to the colonial axis of North-South.

Answer of Prof. Hamelink to Dr. Noll

I see a lot of good things happening and obviously I am very happy about some of the analyses and the technology assessment that you do down in Geneva. But the point I made is that sometimes the promises are simply too unrealistic in terms of a real analysis of the developing world. I have nothing against telecommunication in a village but you should first have in that village for example electricity, otherwise the television does not operate! Now in a large number of villages in India there is no way that in the foreseeable future there will be electricity. And then the promises become very unrealistic!

I have the same problem with education. Education through telecommunication-television is a good thing but we know that building up literacy through satellite-television is highly unsatisfactory because the trick of illiteracy is not that you learn people to read and to write, but that you keep people reading because people very quickly loose their reading skills after they have learned the first elementary skills. Now in most of the villages of India there is no way that any investment is going to be made in a very small primary school library. And yet, that is one of the inevitable prerequisites. If you do not take care that the children have at least the opening to some books they can read, they will very quickly loose the reading habit and whatever effort you have put into the fight against illiteracy will be completely lost. I would plead that all the time we should look to other infrastructural requirements, in line with telecommunication.

We like to talk about the kind of programs that we are going to teach to people in villages and how they are going to benefit from it because they get all this information. However : a crucial point of development is participation. Without the participation of those who are developing, there is no development at all. On this point telecommunication in the sense of point-to-point communication comes in as an extremely essential tool. I may occasionally be very depressed about the possibilities of the Third World, but where I have seen a little ray of hope was where from the ITU, in a report together with the O.E.C.D., the Glodon-project was announced. If we would be capable of getting that project (cost : roughly \$ 1.3 billion) started, it would bring telephones within a one hour walk of everyone all

over the developing world. Then I think we would have made an enormous advance, because that simple telephone means real communication, more than beaming television signals into villages. Through that simple telephone people will get the possibility to talk back and to ask their own questions. I would like to see far more efforts in that field.

Reaction of Dr. Noll

We have of course some problems because of lack of funds. On the other hand, the Centre for Telecommunication Development was created and is now active, after a lot of initial difficulties in the setting-up, precisely for giving additional telephones and additional simple radiocommunication equipment in order not to just beam in information but to help in the basic communication needs. That will make the other socio-economic conditions more livable for the participating peasants.