

IDRC Networks:

An Ethnographic Perspective

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Edward J. Weber

Electronic Networking and Development

Electronic networks are evolving very rapidly as individuals and institutions become aware of what they can offer and as the companies involved in developing and installing facilities promote their products. Mostly missing in the glowing reports on what is possible with the technology, is concern for implications in less privileged regions and communities of both North and South — the city slums and remote rural areas with little to attract investment in new services. Most of the argument is being driven by those hypnotized by the technology. Electronic networks could prove seriously damaging to world social and economic stability if they are only used to entrench structures linked to dominant power groups and cultural attitudes in both North and South. Development depends on empowerment of the disenfranchised to allow them to take fuller charge of their own situations. Means must be created to make the tools for development accessible to poor communities.

An experiment undertaken in Africa to facilitate improved health services and information in various countries, known as **Healthnet**, illustrates some of the potential as well as the difficulties. The purpose of Healthnet is to facilitate the delivery of health services, the collection of health information, and the education of health workers. The Healthnet initiative is based on a fully owned and operated microsatellite that communicates with relatively inexpensive earth stations (approximately \$5000) in fourteen African countries. The network acts as a postbox that gathers and forwards messages to appropriate information sources, and distributes responses. The experiences of Healthnet have been positive overall, and demonstrates the potential for the broad use of this service. Health literature is being disseminated to a wide range of users and the exchange of technical and management information related to health care and treatment is growing substantially.

Problems have been both technical and human. Technically, telephone lines and sources of electrical power have not always been available; licensing authorities are not always amenable to allowing a system that bypasses the national systems; equipment needs to be properly sited for protection as well as for good reception and transmission; and some of the equipment cannot be serviced locally. The human problems have also been a factor: the user community is usually unaware of the potential benefits, and so uptake can be slow; the people involved are not used to frequent and rapid communications, and are not familiar with computer systems so may be intimidated by the technology; and donors need to be convinced of the priority of providing timely and accurate information on site.

The issues encountered in the implementation of Healthnet are manifest in a number of other initiatives as well. Among the key overall problems that are encountered in the establishment of electronic networks are:

1. The **identification of national nodal institutions** has encountered various technical and organizational difficulties. An institution must be willing to support a broad base of users that

includes researchers, information network institutions, private-sector entities, NGOs, project implementors, individuals, and government institutions.

2. The **lack of skilled personnel** to install communications equipment, insufficient mastery of communications software, unavailability of direct telephone lines, poor operations and maintenance of what equipment there is, management and administrative problems, inability to procure vital parts, and theft of equipment, are all ongoing problems which must be faced.
3. More than **half the people in the world have no access to the telephone network** through which much of the new information exchange takes place; and large numbers of these people are illiterate. Although great advances are being made in many communities, global division is being accelerated between the information-rich and the information-poor, between the North and the South, urban and rural, male and female, educated and uneducated.
4. It is not always clear at the early stages of a technology's intrusion into a culture **who will gain or lose** more. The debate will go on for some time and the outcome will be determined by arguments on both sides and by the evolution of new ways of communication and organization that meet society's needs.
5. Indigenous knowledge is dynamic, not static. That is not to say that indigenous knowledge is superior; it is often lacking in important elements; but neither should it be viewed as inferior. It reflects what people know from their experience and forms the basis on which improvements can be built. **Knowledge is developed through both indigenous and exogenous channels** of communication. Electronic communication can influence how interactions take place and the degree to which the exogenous dominates the indigenous. Indigenous technical knowledge has rarely influenced the international information system, although this is beginning to change. A major issue is who owns and controls that knowledge. Development depends on a melding of both indigenous and exogenous knowledge and information.
6. The world of **electronic networking and its potential are currently in their infancy**. Although much has already been accomplished, the limits of existing technology and its application have not been nearly reached, and new advances are on the horizon.
7. Concerns about the potential for a computer-based communication system to create **an underclass excluded from the benefits of a new system** need to be taken seriously. There is no clear solution to these threats aside from adapting the new tools to the special needs of the threatened groups. The potential to build on and enhance the worth of local knowledge and cultures can be enhanced if electronic systems are adapted to that purpose and if they promote local control. This will take imagination, commitment, and effort.
8. **Collaboration and communication are essential** to realize the potentials of electronic networks. The electronic tools that are now available make it possible for ordinary people, scientists, concerned citizens and educators to network in order to provide services, confront

problems and access information. Although there are serious negative implications to the ways electronic networks are currently being promoted, these can be overcome if services are provided that people really want and need and that lead to well-rounded development and human well-being.