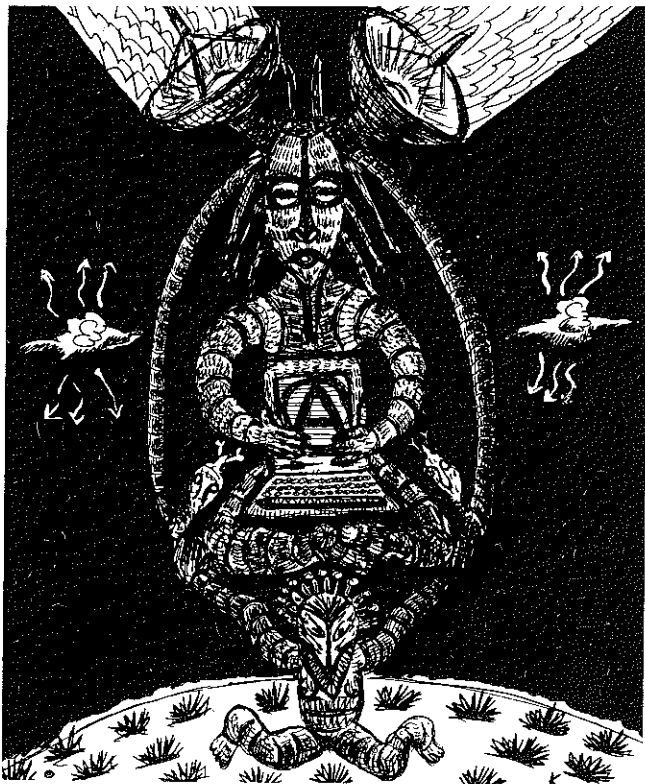


NEW SOURCES:

COMMUNICATIONS TECHNOLOGY AND THE WORLD INFORMATION ORDER



When Captain Midnight broke into three and a half million homes with his own message by taking over the satellite sending a prime-time film all over North America, many people took it to be a sign of the imminent breakdown of the western dominated World Information Order. Others, pointing out how quickly the satellite pirate was tracked down, said it was merely an isolated and insignificant outcry, easily snuffed out by the U.S. military-industrial complex with its virtually complete control over all communications technology.

As usual there is an element of truth in both points of view. There can be no disputing the monolithic hold which western capitalist interests have over our communications technology. However, it is becoming increasingly apparent that these interests can no longer completely dictate the content of the transmissions carried on their machinery. Captain Midnight was actually only found by chance: a member of the public decided to report the details of a suspicious conversation heard over a crossed telephone line.

Observers from the old school of communications theory have tended to obscure the issue of the content of the media by focussing on the hardware associated with communications. Herbert Schiller, professor of communication at University of California, said recently:

"Global information domination and control in the 1980s is based largely on the capability to manufacture the hardware of advanced technologies such as satellites and computers, the organization and administration of international communications networks,

the construction and ownership of comprehensive electronic data banks and the creation of the software that sets all the information activity in motion."

What Schiller and others have missed is the impact of two factors: Firstly, the huge growth in global data transmissions which has driven down the cost of communications and communications equipment; and secondly, the rise of a class of people willing to co-opt the technology or set up alternative communication systems and sources of information.

It is now possible to make use of one of the public data networks to communicate between any one of over 75 countries for only a few dollars an hour. With earth station

satellite equipment dropping from \$100,000 a few years ago to \$15,000 today -- even countries as poor as Zimbabwe are now installing the equipment needed to link into these networks.

Likewise, the cost of the computer hardware one user needs to communicate with another has plummeted. Miniaturisation has made it possible for the power of the computer to be packaged in portable units at prices not far beyond the means of most remote third world villages. \$500 will buy a terminal capable of sending and receiving any number of messages and files. \$1,000 will purchase everything necessary to operate an international database and messaging system.

With a modem -- a device the size of a small book -- such a system can transmit or receive over normal telephone lines, through cheaper but slightly less accessible data lines, or even via shortwave (which no one controls) using more recently developed "packet radio" technology. The latter was used with success last year by VITA (Volunteers In Technical Assistance) to co-ordinate some of the food relief distribution efforts in remote Ethiopian villages.

Any small computer can be made to work automatically by flipping the right switches on the modem so that it will answer an incoming call and route it to the computer. With the appropriate software even a Commodore 64 can be run unattended continuously to provide a drop-off point for newsletter articles or messages to other users of the

system, a forum for the discussion of pertinent issues, and even a databank of relevant archival material. Software to do all this has been written by enthusiastic computer hackers and distributed by them for free, so that for about \$1,000 it is now possible to set up a globally accessible electronic publishing node, more usually called a bulletin board system or BBS. Moreover, this can be made to take place in the "background" so that the user can continue to type or carry on with other computer use. All of this can happen on the ubiquitous IBM "clone" systems sold at discount stores.

The best known electronic networks are massive commercial databases like CompuServe (owned by H & R Block) which try to offer as broad a service as possible to their large subscriber base (in the case of CompuServe, 250,000 people). There are also, however, literally thousands of small publicly accessible systems which are not publicized mainly because they operate on a non-commercial basis.

At last count there were over 1,400 bulletin board systems operating in Canada and about 12,000 in the US. Because local calls are expensive overseas BBSs have been slower to catch on there, but even so there are probably another 1,000 systems dotted about the globe.

Initially many of the BBSs catered to the computer hacker and were of little interest to most users. These systems did, however, help to spread the use of cheap software. Hackers unwilling to pay the high prices of commercial software have written their programmes and made them publically available to anyone who wants them. These days it is possible to obtain public domain word processing, spreadsheets and databases, as well as far more esoteric software. Programmes distributed under the "shareware" agreement promote copying while encouraging a small registration -- usually about \$30 -- "if you decide you like the programme and wish to receive a printed manual and upgrades." Much of this software is as good or better than the commercial equivalents, so many home-based programmers have made a living on the meagre registration fee because there are no distribution costs -- the programme is voluntarily produced and redistributed by electronic networks.

Toronto is in fact home to the largest electronic depository of such material in the world -- Canada Remote Systems. For a small membership fee to cover the costs of the operation, CRS makes a database of over 500 million characters of programming available to anyone with a modem.

Such systems have served to prime the field of electronic communications by providing cheap access to the necessary tools. Now non-computer related BBSs are appearing thick and fast in virtually every area of human endeavor. Possibly because of the isolating nature of the computer, particularly popular topics have been role-playing games and computer dating. Camelot and Dial-Your-Match are two examples among the more than 200 systems in the Toronto area. Artists may converse on Artnet, Speak or the Cat Gallery while people interested in social movements dial up The Catalyst in Vancouver, Altnet in Ottawa, and Gateway in Toronto.

In California, the Community Memory Project has replaced a newspaper with a network of publicly accessible computers into which any citizen can place news or information and any other citizen can give alternate views or request clarification. It has been in operation since 1976. Econet is another such electronic network linking users concerned with the environment and international development in 65 countries. The service offers free

After some initial teething problems, the Whole Earth Electronic Link (WELL) operated by Stewart Brand's Whole Earth Review (formerly CoEvolution Quarterly) is now one of the more dynamic forums for electronic networkers. Unison in Colorado is the home of the Electronic Networker's Association and GreenNET. In Europe, the equivalents are Communitree, Poptel and GeoNet. It is only a matter of time before major networks begin to appear south of the equator.

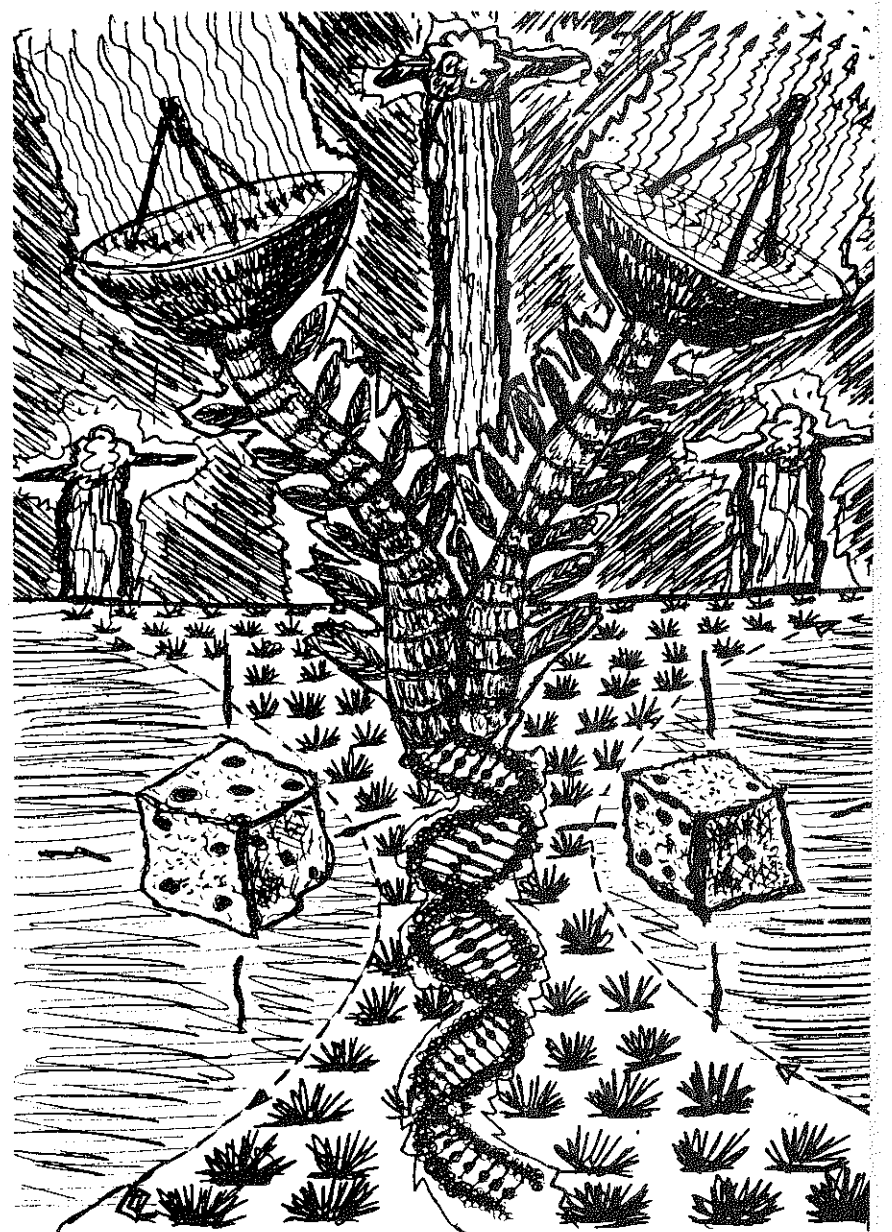
Likewise, networks are beginning to link up to each other so that we can envision a system of transitional computerized social networks composed of equally autonomous communities distributed around the globe. As Bill Ellis of TRANET puts it:

"Each network within the system would have a number of interconnected information nodes to serve the local communities. Any one of these nodes will be able to access and copy the files of any of the others. No one would have unique files not shared by a number of others. So, no node could control the in-flow or the outflow of information. One might collect and put in the files of the network publications relevant to low-cost housing; another might develop files of experts on wood stoves, a third might concentrate on legislative actions relative to population control. The network's memory would be the synergy of the memory of the individual members.

"We can anticipate a completely egalitarian information system in which any household on earth could communicate freely with any other at any distance to provide assistance, request help or exchange goods. There would be no hierarchy or bureaucracy to filter the exchanges. Each planetary citizen would have many optional paths through which s/he could improve the local well-being or participate in world governance."

Perhaps an overly optimistic vision, but nevertheless an accurate reflection of the potential that is here. New communications technology has made interactive and democratic information systems more feasible. The author has assisted with an exhibition dealing with these topics called "Ear To The World". Held at A Space gallery in Toronto from March 30th to April 3rd, the exhibition established and demonstrated a low cost, prototype news and information surveillance system, thus enabling artists and the community to access a spectrum of news and information from a large number of sources, many of them conventionally unavailable.

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electronic mail and it also has additional facilities allowing any user to initiate a "conference" on any particular issue. Users from all over the world make submissions (as messages) to the conference which then become a point of reference to stimulate further discussion or to allow new members to catch up on the topic. In this way a conference can go on for months at the convenience of the user.

Similar alternative electronic networks are now springing up all over North America. PeaceNET, linking peace groups was officially launched last year.

Illustrations: Oliver Kellhamer