

MOSAICS ON THE NET

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Abstract

Well-known experts of communication studies claim that a totally new medium is being formed which will change the future of human mankind. The subject we are speaking about is the Net, a world-wide network which links the individual computers with each other offering the possibility of communication among them.

Keywords: communication, network.

Motto: 'Need you know the latest Supreme Court opinions? Or geographic, economic, and political data about the republic of Rwanda? News about the latest Space Shuttle flights, direct from NASA? Or a new recipe for Asparagus Souffle? All of this, and much more, is available on the Internet, the world's largest computer network. The Internet has brought about an information revolution. Megabytes of data, on almost any topic imaginable, are at your fingertips. In addition to searching online databases, you can carry on discussions with colleagues world-wide, participate in discussion groups, subscribe to electronic journals, collect free software. Whether you're lawyer, a businessman, a scientist, or a farmer, you'll find that the Internet is an invaluable resource. Not too long ago, we would have called this the 'office of the future'. Well, it's available now.'

(ED KROL)

Sentences like this advertising text above can be read in almost all journals or books specialized in communication. Well-known experts of communication studies claim that a totally new medium is being formed which will change the future of human mankind (gradually). Others, the sceptical ones reply that technology produced a new medium again and social scientists are producing a new revolutionary role for it, as they did in the case of video and others.

The subject we are speaking about is the Net, a world-wide network which links the individual computers with each other offering the possibility of communication among them.

In this study I will not speak about the Net but writings about the Net. I have collected a nice quantity of articles discussing the 'real' nature of the Net, the possibilities it offers, and 'NETfuture'. I try to show some main questions emerging around the Net.

1. The New Phase in the Development of Means of Communication or Much More

Stevan Harnad, who created the expression 'scholarly sky-writing', says that the Net makes it possible to use real capabilities of our mind: 'a phase transition in the evolution of knowledge in which we break free from the earthbound inertia that has encumbered human inquiry until now, soaring at last to the skyborn speeds to which our minds were organically destined'.

It is important to mention that by this he refers to the communication among scholars, those people whose brain used to be bound by limited opportunities of communication with other scientists and not to the man of the street. Later he places this new phase in a historical 'queue' of revolution in the history of human thought: 'The first took place hundreds of thousands of years ago when language first emerged in hominid evolution and the members of our species became inclined ... to trade amongst themselves in propositions that had truth value The second cognitive revolution was the advent of writing, tens of thousands of years ago. Spoken language had already allowed the oral codification of thought; written language now made it possible to preserve the code independent of any speaker/hearer. It became, if you like, an implementation-independent code The third revolution took place in our own millenium. With the invention of moveable type and the printing press, the laborious hand-copying of texts became obsolete, and both the tempo and the scope of the written word increased enormously The fourth cognitive revolution ... is just about to take place with the advent of 'electronic sky-writing.' (HARNAD, 1991)

M. Poster uses something similar periodicity: 'Every age employs forms of symbolic exchange which contain internal and external structures, means and relations of signification. Stages in the mode of information may be tentatively designated as follows: face-to-face, orally mediated exchange; written exchanges mediated by print; and electronically mediated exchange' (POSTER, 1990). The context in which they are arguing and the role they accept for themselves are quite different; Poster describes a process, Harnad

participates in it. This results some significant dissimilarity in their views. Now we do not discuss these for they were cited only for illustrating that they both represent a wellspread statement: a new phase or new revolution came true with the birth of Net.

2. Education On-line

Besides scholarly sky-writing (scientific usage of the Net) education is frequently mentioned as a field standing in door of revolutionary changes. Let us see a combative arguing: 'I am arguing that schooling is not likely to continue functioning as the dominant form of education, certainly as the dominant mode by which society makes available what it considers important information for society-wide dissemination. ILLICH (1971) long ago argued that schools could be replaced by libraries as the dominant educational institutions. Libraries, of course, will themselves be very different by the time this will come true (my guess: 50 years). Libraries will exist in cyberspace, and they will contain not only printed textbooks, but all electronically stored information which is publicly accessible. They will, unfortunately, probably no longer be free, though it might be worth fighting for this. For a fee, more will be accessible. The library will merge with the bookstore, and both with the electronic database, which will hold not just text and numbers, but pictures, graphic representations, videos, music, and virtual realities. Television, telephones, and computers will be absorbed into the new institution as well (while continuing to exist independently in the patchy way of uneven ecosocial development).

Embryonically, all this already exists. Any inexpensive computer, with another \$50 for a telephone modem connection, can already link to a world-wide amateur network (Fidonet) of bulletin-board systems (BBS) that are pioneering the cultural practices, which establishment of institutions (the Internet) will follow, just as the 'Ham Radio' of the 1950s pioneered the Global Village long before satellite television. BBSs are themselves often run on very inexpensive, jury-rigged computer systems. And they already have graphics, and music, and CD-ROM on-line. Video and virtual reality await only the fiber-optic cable network (or digital telephonics, or super data-compression schemes) that will replace present telephone lines and television (broadcast and cable, picturephones and HDTV). Japan will have it first, thanks to being younger as a technological society (its trajectory individuating in more modern/postmodern conditions) and having been pushed 'one step back' in World War 2.

Neoteny is extended immaturity, and hence prolonged capacity to diverge developmentally. College students, and adventurous faculty, have

already discovered that even the primitive Internet can get you access to vast libraries of world-diverse information (though mainly only text and numbers yet; pictures are just arriving). This capacity will grow exponentially in the next few years. Younger 'hackers' discovered 10-20 years ago that a little innocent larceny could get you into even the proprietary databases of corporations and governments. Not textbooks, but authentic information in its customary forms. Not what someone else thinks you should know, but what you choose to find out. Not one controlled version of the truth, but as many versions as you care to examine. Not a test to evaluate whether you have learned the content of the textbooks, but value judgments about the worth of whatever you have learned. By you, by others; for specific, definable purposes. In our lifetimes, in the lifetimes of our students, and their students, people will learn what they need to know by accessing global electronic databases, and local proprietary databases that will contain the totality of available information, in forms that will organize that information, or allow us to reorganize it into whatever forms may be most useful for our immediate purposes. The successor to print literacy will be the set of skills needed to locate and usefully organize information for ourselves and for others, in cyberspace (LEMKE, 1993).

I like this text for it contains several expectations of network enthusiast. — 'all electronically stored information ... is (will) publicly accessible' — a new world comes where information will not be closed, and its usage will not be limited only for few. Lemke does not say it literally, but this desire can be felt behind. And in the Net it is a practice that you should give the access to your information to anyone if it is not a secret one and let your computer used by others. In this approach the Net seems to be a tool which makes young people able to be freed from their parents' and teachers' guidance, they can be autonomous human creatures. The world became a forest of information in which the young themselves can find everything they need by their knowledge in computer usage, even the governments or big corporations can not hide information. And the free access to information becomes the key for solving all the problems we are suffering from.

'The library will merge with the bookstore, and both with the electronic database, which will hold not just text and numbers, but pictures, graphic representations, videos, music, and virtual realities. Television, telephones, and computers will be absorbed into the new institution as well (while continuing to exist independently in the patchy way of uneven ecosocial development). In embryo, all this already exists.' It says that all artefact of human culture will (can) turn into the computer winchesters and can be enjoyed or consumed from them.

3. The Structure of the Net

Though the physical structure is totally unimportant for the user to know in the process of using the Net, I think it is worth mentioning for it is a special structure and there must be a hidden link between the special kind of communication which goes on it and its structure. (Theoretically another kind of physical structure could serve this communication.) 'The Internet was born about 20 years ago, as a U.S. Defense Department network called the ARPAnet. The ARPAnet was an experimental network designed to support military research — in particular, research about how to build networks that could withstand partial outages (like bomb attacks) and still function. In the ARPAnet model, communication always occurs between a source and a destination computer. The network itself is assumed to be unreliable; any portion of the network could disappear at any moment (pick your favorite catastrophe — these days backhoes cutting cables are more of a threat than bombs). It was designed to require the minimum of information from the computer clients. To send a message on the network, a computer only had to put its data in an envelope, called an Internet Protocol (IP) packet, and 'address' the packets correctly. The communicating computers — not the network itself — were also given the responsibility to ensure that the communication was accomplished. The philosophy was that every computer on the network could talk, as a peer, with any other computer.'

Kathleen BURNETT states that the hierarchyless physical structure helped a milieu to take shape among the users. 'The concept of an absolute hierarchy of knowledge is maintainable only in a milieu where information is a fixed commodity — where the individual information exchange unit is relatively permanent and the environment comparably stable. In milieus such as electronic internetworking — where mutability and acceleration appear to be primary characteristics of information exchange — the individual unit is permeable and the environment fluid and pliant. Even if the highly improbable were to occur, and a single organizational system could be found which met the myriad of needs and expectations of an increasingly diverse user population, the milieu in which that organizational system would have to operate would render it at best highly inefficient, at worst inoperable' (BURNETT). I belong to a group of sceptical networkers, I do not believe that the Net could change the world, but I have to admit that this milieu among ten million people I found on the Net gives some hope for optimism.

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