KORZYBSKI IN THE ELECTRONIC VILLAGE: 2001

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Imagine that you are now sitting in a swivel chair in the center of an enormous room. Each of the walls has a number of windows in it; different sizes, different shapes. Some are open, some are closed and the blinds are pulled down.

You have been sitting in that chair for a very long time; perhaps several million years, but even so you are a newcomer. The room is 4-1/2 billion years old and the windows look out upon scenes that are believed to be 15 billion years old.

By turning in your chair, you can see through one window fairly clearly, but only obliquely through the windows on either side of it, and, of course you cannot see out any of the other windows unless you swivel the chair around to a different angle.

As you swivel around, you will see different things out of different windows, but that is not as important as what you believe that you see through the window.

For a very long time you believed that what you saw was a vast bowl with lights in it that turned slowly past the window.

But from time to time, some rather strange characters would come strolling through the room, and every time they did, what you thought you saw through the windows changed.

An astronomer named Copernicus said it wasn't what you saw through the window that was moving; it was you and the chair and the room that moved.

Then a mathematician called Newton said you and your chair and the whole room were falling toward the center of the earth, and so was the moon; moreover, the earth itself and you and the room and the moon and all the planets were falling toward the center of the sun.

So far, you had only been looking through one window, and since you didn't really believe anything they said, you could go along with it because it didn't make any difference to you anyway.

Now, all of a sudden, in 1895, the shutters of another window blew open and revealed a world you had never seen before. A faint greenish glow in the corner of a darkened room one afternoon in Wurzburg, Germany, was the ghostly wind that opened the shutters and revealed the dim skyline of an Electronic Village yet to be born.

After X-rays, there followed more and more windows opening to reveal hidden worlds. The electromagnetic spectrum unfolded like a rainbow in slow motion.

A short time after, a fellow named Einstein came in and said that whatever you observed through any window you'd have to include the fact that you were looking at it as part of your description of it.

And then Korzybski comes by and says, "I don't care what you see through the window; whatever you say it is, it is not.

"Whatever you saw through the window was an absolute variable. It is different all the time.

"And what you chose to describe of that experience is a relative variable. It is different for every observer.

"But the label is a constant; once we have agreed on the definition. We do this by agreeing on the symbol."

One is reminded of Humpty Dumpty when he said, "When I use a word, it means just what I choose it to mean--neither more nor less."

All this time, the windows you had been looking through had one thing in common; there was something out there. Copernicus, Newton, Einstein and Korzybski agreed on the existence of some 'things' out there apart from our awareness of them. And Einstein and Korzybski agreed that whatever measurement or description we made of them, the observer was an integral part of them.

Then, in the 1930's, a new window opened on a most pleasant vista. More and more you began to relax contentedly in your chair and gaze through the window. Television became your window on the world. It was even better than comic books.

While you're turning knobs and pushing buttons, trying to find your electronic placebo for the day, McLuhan comes breezing in, his pockets bulging with metaphors and aphorisms. He is waving a banner with a strange device. It says, "The Medium is the Message!"

"You think you're a pretty good watcher," says McLuhan, "but I've got news for you!

"All those other windows--you were looking out at something; maybe the stars, or the insides of an atom, or maybe just the house next door. But this window you're watching now--this television thing--you can't see anything through it. All you can see is the window itself. And you don't really even see that--you feel it.

"Whatever you see, you can only understand by hearing; and whatever you hear, you can only understand by seeing; and with television you are both seeing and hearing at the same time, and the only sense you have left is touch. You stare at it long enough, it'll grab you if you don't watch out!"

And with that, he waves his banner, "The Medium is the Message," three times over his head, and all of a sudden, the walls of your enormous room fall away on every side.

There before you, as far as human eye can hear, stands revealed the panorama of the Electronic Village.

I am reminded, and perhaps the old timers among you will remember, too, the description of the City of the Machine from van Vogt's The World of Null-A--the first classic science fiction novel based on Korzybskian general semantics and non-Aristotelian formulations:

The hero, Gosseyn (probably the first real clone in fiction), who has been accused by the Machine, and found guilty of the crime of non-identity, walks out into the deserted alley to find refuge from the terrors of the night.

As van Vogt describes it:

As the planetary darkness deepened, more and more lights flashed on in their automatic fashion. The City of the Machine glowed and sparkled.

The Machine was at the far end of a broad avenue. . . . It reared up and up in a shining metal splendor. It was a cone pointing into the lower heavens and crowned by an atomic light-- brighter than any noonday sun.

It was here, in the City of the Machine that the non-Aristotelian games took place to select the rulers of the Galactic League and under its rules, as van Vogt explained,

It must operate the games fairly, within the framework of the laws laid down long ago by the Institute of General Semantics. . . .

That's you, folks.

In any event, with the entry of McLuhan and his magic banner, the old walls fell away and there stood before us today's counterpart of "The City of the Machine"--the Electronic Village. I prefer to call it the "Electronic Village" rather than "Electric Village," the phrase McLuhan used, because, in the words of Nam June Paik, "Electronics is essentially Oriental . . . but don't confuse 'electronic' with 'elec- tric' as McLuhan often does . . . . Electricity deals with mass and weight; electronics deals with information; one is muscle, the other is nerve."

Standing here tonight on the slight eminence of the next to last decade of the 20th Century, we can already see the Electronic Village stretched out before us. We are in the suburbs now; we will be down- town before the end of the century.

And we know, or think we know, a great deal about it. Or, at least, we talk as if we do.

We know it is being staked out, block by block, in a giant grid that soon will wrap the planet in an electronic mesh.

We know that its streets will be lit by laser beams and stitched together with optical fibers. The neighborhoods will howl with the invisible wind of micro-waves and the air will glow with radiant energy. The voice of the Village will be stereophonic and the town itself driven by brains of crystal laced with neurons of gold. The whole magnificent spectacle will be orchestrated by satellites hung like jewels thousands of miles out in space.

Inside the Village we mere mortals will find our lives changed in more ways and more rapidly than at any time in the history of the species. Most of us know by now, or think we know, what those changes are likely to be--Lord knows there has been enough written about them in the last few years.

But before we examine the treasures that are to be ours at the push of a button or the twist of a knob, I want you to recall our experience in another city.

You will remember how, in the Land of Oz, Dorothy was flown by winged monkeys to the Emerald City and finally she and her motley entourage gained entrance to the Throne Room. There they discovered that the Wizard of Oz was a mere mortal, possessed of no supernatural powers; he was a master of illusion.

Caught with his illusions down, as it were, the Wizard admitted the whole thing was a hoax and he was a humbug.

He confessed to Dorothy:

I ordered them to build this City, and my Palace; and they did it all willingly and well. Then I thought, as the country was so green and beautiful, I would call it the Emerald City, and to make the name fit better, I put green spectacles on all the people, so that everything they saw was green.

"But isn't everything here green?" asked Dorothy.

No more than in any other city, replied Oz, but when you wear green spectacles, why of course everything you see looks green to you. . . . My people have worn green glasses so long that most of them think it really is an Emerald City, and it certainly is a beautiful place, abounding in jewels and precious metals, and every good thing that is needed to make one happy . . . .

So now we will reluctantly leave the Land of Oz and I suggest you put on your green spectacles while we take a short stroll through the streets and alleys of the Electronic Village. For this tour, we will use as our guide-book various issues of The Futurist and if the territory twenty years from now turns out not to match the map, don't blame me, blame The Futurist editors:

Productive physical work--mining and drilling, processing and manufacturing, fabrication and packaging--will be performed almost entirely by computer-directed machinery; the work force will largely be reduced to the design, engineering, installation and maintenance of successive generations of improved cybernetic systems . . . .

Bureaucratic work--paper shuffling that occupies more than half of the work force in the industrialized societies--will be transferred more and more to computerized data-processing systems. What paperwork is still performed by humans will mostly be done in their homes, using an array of receiving, recording, reproducing, storage and transmission equipment. The centralized business office as we know it today will largely disappear.

Our concepts concerning what we mean by jobs, work, income, leisure and retirement will undergo profound changes--they may even cease to have any meaning.

A concomitant of this transformation will be equally profound changes in our attitudes toward the private ownership of property and the personal acquisition, use, succession, transferral and inheritance of tangible property.

Currency, checks and credit cards will be replaced by an electronic credit and debit system, using voice-print for personal identification. There will be some kind of single-unit international monetary system, probably based on a unit of energy: quite possibly the "erg." We can then talk about saving for a "nest-erg" and be warned against putting all "ergs in one basket."

Today's metropolises will probably remain--or at least the high-rise downtown buildings will--but they will mostly be converted into condominium-type housing, occupied by professionals who will work out of home terminals. They will be mostly engaged in creating and managing data and information systems for the computers that run the factories and that will be operating government, finance, education, medicine and other social services.

The new cities that will be needed to accommodate an increased population and the displaced big-city workers, will be of modest size, half-a-million or so, scattered around the country and connected by high speed, intercity mass transit systems. Privately-owned passenger automobiles will assume the same position that horses have today: mostly used for recreation and sports. Today's commuter syndrome will be a forgotten nightmare; since it will no longer serve an economic purpose.

Merchandising, marketing, shopping, entertainment, news and information services, and nearly all educational systems will be conducted by a symbiosis between central and home terminals linked to hybrid television-computer systems.

What I've just outlined is only one of a number of scenarios that can be drawn up to describe the stage setting of the Electronic Village. Given today's technology and the observable broad waves of change in our transitional industrial culture, it seems to me to enjoy a high probability.

Even if the changes I have outlined come about in the way I have suggested, I would describe the transformation as superficial. What

is <u>not</u> superficial is that we will have drawn between ourselves and whatever reality there is, a man-made and contrived screen of electrically charged particles. The very substance of the Electronic Village is composed of two elements; television and electronic brains.

The world that we will experience has <u>itself</u> been transformed. It is a second-hand world.

The primary product of the Electronic Village, they say, is information. Actually, it is not. The primary product is data. About this, there is a little saying you might keep in mind:

> Data is not information
> Information is not knowledge
> Knowledge is not wisdom . . . .

The great electronic brains of the global Electronic Village will churn out billions upon billions of bits of data. Some of the data will be processed into information. And at least some of the information will be processed into knowledge.

But there is no guarantee inherent in the system that the knowledge will ever be processed into wisdom.

One can believe, with Tennyson in "Locksley Hall,"

> . . . I doubt not through the ages, one
>   purpose runs,
> And the thoughts of man are widened with
>   the process of the suns . . .
> Knowledge comes, but wisdom lingers, and
>   I linger on the shore,
> And the individual withers, and the world
>   is more and more . . . .

In the sense I am using it here, I define wisdom as "the compassionate use of knowledge." It brings to mind a line I read somewhere, but can't find now, where Christ, Buddha and Mohammed are described as "the young compassionate gods." It is in that vein that I am using "compassionate."

It may also be that wisdom, which is almost always attributed to the ancients, but almost never to the moderns, is a lost art, like the making of certain types of armor, or a special shade of purple for the costumes of kings . . . .

In any event, wisdom, in the sense I have defined it, is in short supply in the world of today; I see no reason to expect it to increase in the Global Electronic Village of tomorrow.

In this, I find myself at odds with many of my contemporaries, who find, instead, the attainment of an electronic world-mind, a pathway to a Golden Age.

They echo Tennyson, who foresaw an era when . . .

> . . . the war-drums throbbed no longer, and
> the battle flags were furled
> In the Parliament of Man, the Federation of the
> World.

About a generation later, World War I broke out.

This Golden Age is much the same vision that Teilhard de Chardin entertained, when he foresaw the creation of a super-consciousness in which the people of the planet act as if they were cells in a global brain stretched like an electronic membrane of awareness around the whole Earth. He called this stage of evolution, "the noosphere."

McLuhan appears to agree. In Understanding Media, he says,

> The tendency of electric media is to create a kind of organic interdependence among all the institutions of society, emphasizing de Chardin's view that the "discovery of electromagnetism is to be regarded as a prodigious biological event."

Elsewhere, McLuhan says,

> If the work of the city is the remaking or translating of man into a more suitable form than his nomadic ancestors achieved, then might not our current translation of our entire lives into the spiritual form of information seem to make the entire globe, and of the human family, a single consciousness?

Further on, he says,

> Today, computers hold out the promise of a means of instant translation of any code or language. The computer, in short, promises by technology a Pentecostal of universal understanding and unity.

McLuhan surmises,

> The next logical step would seem to be, not to translate, but to by-pass languages in favor of a general cosmic consciousness, which might be very like the 'collective unconsciousness' dreamt of by Bergson.

Be that as it may, there is a commonly held dream of a vast consciousness or unconsciousness enveloping the globe by means of electronic communications (mostly television) and super computers (to pump the message into the system).

I find it hard to derive this concept from the very nature of the television process itself.

We need to examine more closely the physical processes of television and the biological systems by which the images are received and processed by the neural system.

To start with, "television," which literally means, "vision at a distance" is something of a misnomer. What most viewers see is usually five to fifteen feet from them.

Nor does the viewer see a picture. There is no picture there. What is seen is tiny dots, energized to glow briefly, one at a time, in rows across the screen. The entire scanning process is completed about 30 times per second, creating a stroboscopic effect, just a little faster than the flicker level of the eye. It is like the shutter and successive still frames in a movie projector.

Because the eye picks up and retains the glow of each dot long enough, what is received by the brain is a mosaic; a very coarse mosaic. A good quality halftone engraving for magazine or slick paper reproduction contains several million halftone dots per square foot of area. A TV screen with two square feet of viewing area has about 200,000 halftone elements, or 100,000 per square foot, but because of losses implicit in the scanning process itself, it works out to about 76,000 picture elements per square foot. At any instant your eyes are actually seeing only about 70 or 80 of them lit up; the rest of the image is afterglow from dots that are off.

This coarse caricature of dots is all that your retina can send to your brain. The image is formed inside your head, not on the screen.

Back at the transmitting end, we begin a strange series of events, each of which abstracts less information from the preceding one.

Here is sort of the way that it goes:

Abstract I: Out of the infinity of events in the universe, someone decides to choose one small segment of them to televise . . . .

Abstract II: Depending on the field and focal length of the camera, certain images are abstracted from the set of events to be televised . . . .

(At this point, any number of alterations can take place. Different lenses substituted, different filters, the recorded scene slowed down or speeded up or run backward, other images superimposed on it, other scenes interjected, or some original scenes deleted and others completely irrelevant can be substituted . . . .)

Abstract III: Out of the photons or quanta gathered by the camera, some are converted into electrical impulses . . . .

Abstract IV: Some of the electrical impulses are stored momentarily and some of these are scanned by an electron beam. At this point, there is a measurable loss of image on both the traverse and the vertical scans.

Abstract V: The picture signal thus formed is converted into wave fronts and these are transmitted . . . .

Abstract VI: Some of these wave fronts are picked up by your antenna, and inside your receiver, the scanning action is reversed and the wave fronts are converted into dots on your TV tube screen.   Of the 525 lines on your screen, during the scanning process, 15% are lost in the return scanning motion, and about 35 lines are lost on the vertical return to the top of your screen.

Abstract VII: Your eyes pick up a few of the dots on the screen and this pattern is transmitted from your retina along neural paths to your brain . . . .

What your brain receives as perceived image is at least a <u>seventh</u> order abstraction from whatever 'reality' it was abstracted <u>from</u>.

As Gerry Mander, in his book, <u>Four Reasons for the Elimination of Television</u>, puts it:

Perhaps this quality of non-existence, at least in concrete worldly form, disqualifies this image formation from being subject to conscious processes: thinking, discernment and analysis.

TV viewing may then qualify as a kind of wakeful dreaming, except that it is a stranger's dream, from a faraway place, and it plays against the screen of your mind.

Because the image has to be formed in the brain from a sketchy mosaic of dots on your screen, McLuhan calls your interaction "partici- patory"--an unfortunate choice of words because it seems to assume conscious, voluntary action on your part.   But the whole technical process helps to show why "the medium is the message" makes sense, despite its semantic imprecision, in that the limitations of the proc- ess itself determine the kind of messages that can be transmitted and received, as well as how they can be processed in your brain after reception.

At no point in the entire process can we raise the question of 'meaning' because, as we well know, pictures don't have meaning, only people do.

Having traced the televised mosaic--"a stranger's dream of a far- away place" into your sensory system, let's see what we think happens to it then:

Actually, we know very little about this crucial part of the proc- ess.   But there are a few meager clues.

In a 1975 study by researchers at the Australian National Univer- sity, in Canberra, as reported by Gerry Mander, tests on a small number of subjects indicated that:

When we watch TV our usual processes of thinking and discernment appear to be only semi-functional . . . .

Very little cognitive, recallable, analyzable, thought-based learning takes place while watching TV . . . .

The left side of the brain, in the area where language, communicative abilities, cognitive thought and comprehension are organized, appears to go into a sort of 'holding pattern', in the presence of simple, constant, repetitive and ambiguous visual stimuli. It is as if the brain decides that there is nothing it needs to do about the kind of information it is receiving.

> The right half of the brain, which deals with more subjective cognitive processes--dream images, fantasy, intuition--continues to receive the TV images. But because the bridge between the right and left brains has been 'by-passed' and thus all cross-processing--the making conscious of the unconscious data--is eliminated.

These 'findings' would seem to indicate that most TV information enters the neural system unfiltered and whole and goes directly into the memory banks, but is not available for conscious analysis, understanding or learning.

According to other research briefly summarized by Mander, studies of brain-wave activity during TV viewing show that no matter what the content is, brain-waves enter a 'characteristic' pattern. The response is to the medium; not the message (which is pretty much what McLuhan said). In this pattern, the brain-waves slow down and Alpha and Delta brain-waves become predominant. The longer the TV set is on, the slower the brain-wave activity.

A. R. Luria, in The Psychopathology of the Frontal Lobes, says, "No organized thought is possible in these phasic states."

Another study, comparing brain-wave activity in response to advertising in a magazine and in TV, seems to show that brain-wave response to the print media is active; for TV is passive. The study concluded, "TV is not communication as we have known it."

Mander, reporting on an interview with Dr. Eric Peper, a researcher on brain-wave testing and professor of interdisciplinary sciences at San Francisco State University, quotes Dr. Peper as saying,

> With TV you get a decrease in Beta (fast) waves and an increase in slow activity with a large percentage of Alpha waves . . . .

> Alpha patterns disappear at the moment a person gives visual commands; when he takes charge of the process of seeking information. Any orienting outward to the world increases your brain-wave frequencies and blocks Alpha wave activity. Alpha occurs when you don't orient to (anything). You can sit back and have pictures in your head, but you are in a totally passive condition and unaware of the world outside your pictures. . . .

From this it would appear that the sensory apparatus recognizes that the image it creates from the mosaic on the TV screen is not real, that it constitutes nothing it should or could do anything about, and so it consigns the information into the same area of the brain that it usually reserves for day dreaming.

Mander concludes:

Our thinking processes can't save us. To the degree that we are thinking as we watch television, a minute degree at most, the images pass right through, anyway. They enter our brains. They remain permanently. We cannot tell, for sure, which images are ours and which came from distant places.

We have lost control of our images.

We have lost control of our minds.

End quote.

It is almost certain that advances in television technology will improve the quality--i.e. the information content of the image in the next decade or so. (This Fall the Japanese demonstrated a system with more than 1,000 lines that is said to have the clarity and resolution of a good printed halftone reproduction. But the widespread adaptation of any radical advance will require complete retooling of large seg-ments of the existing system and this will take a long time, a lot of money, and extensive changes in communications law.)

But even if such advances are made, the basic information system remains the same: there will still be at least seven abstractive levels between the reality and the image on the screen.

Now, consider that in the Electronic Village, even today, in the United States 98% of the homes have television; that the average view-ing time for both adults and children is a bit more than four hours per day. The current generation of children will have spent more time watching television at home (not counting the TV in some classrooms) than they will spend in classrooms in their entire school lives--from kindergarten to graduation from a full-term college.

That takes care of the kiddies. How about the adults?

A Ford Foundation report on "Adult Illiteracy in the U.S." shows that 56 million adults--40% of the adult population--have not completed high school; half of them never got that far. A Federal government Adult Performance Survey in 1975 showed that 23 million U.S. adults lacked "functional competency" and 34 million more were "functional" but not "proficient."

The old definition of literacy, "the ability to read or write," has been downgraded to "know the alphabet and read words." This is called "functional." But a person is not considered "proficient" if he or she "cannot address a letter so that it will reach its destina-tion nor interpret a bus schedule." Based on the adjusted 1975 bi-census population of the U.S., 55% of the adult population is con-sidered illiterate.

McLuhan asked himself; "What possible immunity can there be from a . . . medium like TV?"

His answer; "To resist TV--one must acquire the antidote of related media--like print." This antidote is out of reach of more than half the adults in this country.

Mander, asking himself the same question, answered, "What is required is a doubting process, a sensory cynicism." This might have been a good place to suggest general semantics, but he didn't.

For most of the people in the Western technological cultures, most of their information about the world will be chosen, prefabricated and delivered by strangers from faraway places at times of their choosing. What state, national and international news we receive by this medium will be selected or staged, screened and edited, censored, distorted, falsified, exaggerated or minimized, slowed down or speeded up, mixed with extraneous or irrelevant material, or not transmitted at all by an exceedingly small number of people. This will still be true if and when we have direct satellite transmission to home antennas, or wide-spread cable TV networks--neither of these systems will change anything at the point of transmission.

Now this handful of people (compared to the size of the audience) has only one motive--and this is true of editors and producers in all of the media. The role of the editor or producer is to create an audience. He has no other function.*

An audience is a negotiable product--it is genuinely a commodity, like corn or soybeans or hog-bellies. An audience can be sold to an advertiser, or a politician, or an evangelist, or a charlatan--whoever has the money and the desire to buy it.

You create an audience by giving it what it wants to see and hear.

You keep the audience by giving it no alternatives--or as few alternatives as possible.

(It's like the automobile market up until a year or so ago. You could buy any kind of automobile you wanted, so long as it had a com-bustion engine and used gasoline for fuel.)

In fact, the mass-media industry is not in the communications business at all. It is the direct clone of the industrial society that gave it life. As a mode, or system, it differs in no essential way from those industries that produce and market a bar of soap or a can of soup. There is a centrally mass-produced product moved through selected distribution channels to a consumer. What's different about the media industry is that if you get a defective product, you can't return it to the manufacturer and get your money back.

The mass media industry is not a communications system in any formal sense of the word. Communication is based upon a system involv-ing a sender, a message, a receiver and a feedback. It is a loop. The mass media create a one-way street. Only time will tell if it will turn out to be a dead-end street as well.

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* Noted. (Ed.)

Gene Youngblood in his book, The Videosphere, or at least in the pre-published abstracts from it, calls mass media "a special case of the industrial organizing principle." He describes it by saying,

The chief functional characteristic of the mass media is that of processing centralized output--the centralized mass production and one-way mass distribution of symbolic messages to a captive mass-audience.

He goes on to say,

The ultimate purpose of the mass media is to secure the maintenance of the industrial order that makes their operations possible and necessary in the first place.

In short, the primary function of the mass media is not to 'sell' products and services, but to support the rationale of the industrial system that gave it birth and gives it sustenance. It sells an ideology. It is quite probable that neither the sender nor the receiver is conscious of the ideological content. For both it may be subliminal.

It appears that what we are dealing with in the mass-media sub-liminally impregnated Electronic Village is not a communication system so much as an information system. But it may not even be that.

In information systems theory, information is thought of as a choice of one message from a set of possible messages.

Now, when information is considered solely as a system, message content is not a concern. The system requires only that there be a source of information, a transmitter, a signal, a receiver and the ultimate destination. The message can be electronic bits on a computer, trainloads of coal moving from a mine to a steel mill, or automobiles moving along an assembly line. The mathematics for describing the system are much the same. At this theoretical level, the only event that requires action--and therefore could be called meaningful information-- is in effect the improbable signal.

Thus, on an automotive assembly line, in which the signal is par-tially completed cars moving along through the stages of assembly, if a rhinoceros should suddenly show up moving down the line, this would constitute a highly improbable signal, and no doubt some action would have to be taken. Unless, of course, management decided that it could make just as much money out of rhinoceroses as you can out of automobiles.

In any event, it is the improbable that constitutes the 'meaning' of a message in information theory.

In order for there to be an increase in the 'meaning' of a message, there must be a number of messages that can be sent and received over that particular system at a given time. If there is only one; then the informational content drops to zero after one completed transmission and reception.

If there is a choice between "yes" and "no"--then obviously there are two probabilities. "Yes," "no," and "maybe " give us three, and so on. The meaningful content of the message is inversely proportional to the degree of its probability--i.e. the number of other messages that could be sent within that context.

The one rule is that there be agreement on the ingredients of that message--the bits of which it is made. If the transmitter sends you a trainload of coal when what you wanted was a set of the Encyclopedia Britannica, the message is improbable, all right, but so highly improbable that it would be interpreted as "noise"--an indecipherable signal.

This is, I feel, what Korzybski meant when he said, "The label is a constant; once we have agreed on the definition. We do this by agreeing on the symbol."

I have suggested that the Electronic Village, insofar as TV is its 'voice', is not a communications system to the extent that it has no loop feedback. Nor does it appear to have the characteristics of an information system, insofar as it is uniform in ideological content. The transmission allows for few alternatives from the producer-directed, mass consumption syndrome; therefore, the message is highly probable, and the information content is low.

(Just think of a beer or a soap commercial and you'll see what I mean. It applies equally to the program that is sandwiched, thinly, between commercials.)

It seems unlikely that out of the present system we are going to turn what is essentially a sales and merchandising gimmick into a global brain or anything like it.

And yet, there may be a way.

Gene Youngblood has a most intriguing suggestion.

It is a supreme irony that it is based upon the very symbol of the centralized, technologically advanced syndrome; the epitome of a computer-controlled industry.

He is looking (in The Videosphere) for a decentralized, user-controlled feedback communications system, and where does he find it?

Right at the heart of the industrial society.

It is the existing, computerized switched telephone system.

The very essence of the telephone network is that it is user oriented and user-controlled. You initiate the message, you decide when, where, how and to what purpose the costly and complex technology will be used. You engage the system to initiate a dialogue and you establish the feedback loop. If your call goes unanswered, you pay nothing for it and are free to try alternative numbers.

I said earlier that communications in an electronic society consti-
tutes a commodity market and that the commodity is data. Information
is the value added by the <u>user</u> to the data.

As a commodity market therefore, it could be organized and
operated as a public utility--just as your electrical, gas and water
services are now. You, as the user, would pay for the use of the
service in much the same way as you now pay for kilowatt hours, therms,
gallons of water, or the phone calls you initiate. As use expands, so
would revenues, which then could be used to expand services. Much-used
services could carry a lower rate than infrequently used ones, just as
local calls cost less than long distance calls do in today's telephone
system.

What Youngblood proposes is the formation of a "National Informa-
tion Utility."

He describes it as--

a common-carrier public utility supported by public funds; a legal
monopoly whose services, deemed essential for individual liberty
and social survival, would by force of law be made available to
everyone at standard rates, with ownership of the physical plant
separated by law from the power to program it.

Except as a science-fiction theme, such a concept was not tech-
nologically possible even a few years ago. Now it is.

The complete integration of communication systems with computerized
data systems, using both wired cable services through optical fibre
networks, and rebroadcast from satellites, has already begun. Pilot
applications are operative in Japan, Great Britain and to a limited
extent, in the United States.

Under the public utility concept, each home could be equipped with
a multi-media home terminal which would include two-way audio and video
and facsimile print read-outs. Because it would be basically a cable
system, the number of channels would be practically limitless, particu-
larly with optical fibres.

The system would be two-way in the same sense that your telephone
is today; you could put your own 'program' on the channel of your
choice just as today you can say anything you like over the telephone.
The person at the other end has the same freedom of choice you have.
He can hang up.

A study made by Cable-Data Associates, Inc. of Palo Alto, Cali-
fornia, for American Telephone and Telegraph Company in 1977, indicates
some of the user-oriented services that could be performed by the Pub-
lic Information Utility:

All money transactions--buying and paying for all goods and
services, taxes, investments, savings, installment payments . . . .

Shopping transactions--ordering from televised catalogues and product demonstrations; special sales information, consumers' advisory services; grocery price list, information and ordering with store-to-home delivery . . . .

Household mail and messages--message recording and answering, mass mail and advertising mail . . . .

Most educational services--computer-aided school instruction, computer tutoring, correspondence school, adult and extension courses, library access, indexing, research and abstracting services . . . .

Special interest and general interest newspaper and magazine reception by facsimile . . . .

Daily calendar and reminder of appointments; fares and ticket reservations for bus, train and air travel; hotel and motel rates and reservations; trip itineraries and scheduling . . . .

Twenty-four hour local and national news, weather reports and forecasts; times and places of community events . . . .

Directory of restaurants--type of food served, prices, hours, reservations, home delivery and catering services . . . .

Direct, personal face-to-face audio-visual contacts with any other person on earth who is in the system . . . .

Any-time access to a wide range of plays and movies, travelogues and documentaries, sports and games . . . .

Direct participation in the political process at the community, state and national level on a feedback basis . . . .

And, if the person is using his or her home terminal as his office as well--and many people will be--they will have access to company records, secretarial and research services, access to technical libraries and data banks, legal and market information, audio-video conferences with other members of company and audio-video contacts with company plants and offices anywhere in the world.

The Palo Alto researchers say that nearly all of the technological components of such a system already exist and that it could be implemented as early as 1980 but probably will be delayed well beyond that because we do not have the legal and political institutions to deal with it.

You will notice that this list closely parallels the list of "goodies" of the Electronic Village that I mentioned earlier, based on our guide book, The Futurist, shortly after we left the Emerald City in the Land of Oz.

The essential difference is that, with the Public Information Utility concept, the entire emphasis has shifted from an industrialized

private enterprise control to consumer use control. And in that difference may lie the answer to whether the Electronic Village will be the last skyline we will ever see, etched against a sky lit with a dying radiant glow, or the beginning of the Celestial City--an outpost of "The Brave New World."

If I have given the impression that television can transmit only a coarse message which contains a minimum of information, then I have misled myself as well as you. There are many types of information that TV can carry: words, numbers, formulae, graphs, charts, maps, diagrams and reproductions of any printed material. But these are not images of an external reality; they are symbols and they are received and understood as such. They are data and the disciplined mind consciously receives them and processes them into information.

What TV cannot do as a medium is send us a picture of an unprocessed reality; nor can any other media. For those who believe it is information about the culture in which they lead their everyday lives-- and remember, the majority of them cannot read--it delivers a caricature at best. But they do not know this.

You may be as appalled as I was to discover that many TV viewers do not know that the shows they see are fictional and the parts in them are played by actors! They think they are real life.

In a study for the National Institute of Mental Health, Drs. George Gerber and Larry Gross of the University of Pennsylvania reported: ". . . 250,000 letters, most containing requests for medical advice, were sent to 'Marcus Welby, M.D.' during the first five years of his 'practice' on television."

Like firearms and nuclear energy, it is not the technology that's at fault--it is the system that uses it unwisely--that is, without compassion.

The question necessarily arises, if, as I have related, the image on the TV screen is at least a seventh-level abstraction, and if, indeed, it bypasses the rational, cognitive side of the brain and rides softly on Alpha waves in the unconscious, then how is a user-controlled system any better than the producer-controlled system that we now have?

I think the answer lies in the role of the user himself.

You may recall that I mentioned earlier that research in brain-wave activity indicated that: "Alpha patterns disappear the moment a person gives visual commands; when he takes charge of the process of seeking information."

And I also indicated that we may expect, in time, a considerable improvement in the image received on the TV screen. It will still be at least a seventh-level abstraction, but it will contain much more data from the original object than we have now.

These two convergences--demand television and a high data resolution image--may give us, for the first time in our history, a

multi-valued world of external experience, technologically recreated on a global scale.

The non-Aristotelian philosophy largely attacked a philosophically two-dimensional world. But the real problem is that--in the mid-20th Century--we have been living in a technologically one-dimensional world.

Is it not possible that perhaps, by making proper use of the extraordinary powers conferred upon us in the Electronic Village, that we can, at last, find sanity in a technologically recreated multi-dimensional world?

Can we now see--at the end of the electron tube--a vision of a polychromatic Et Cetera?

I am hoping that the panel on Sunday concerning "General Semantics and the Shaping of the Future" will address itself to this opportunity.

And please, if you are able to come to the panel, don't wear your green spectacles . . . .
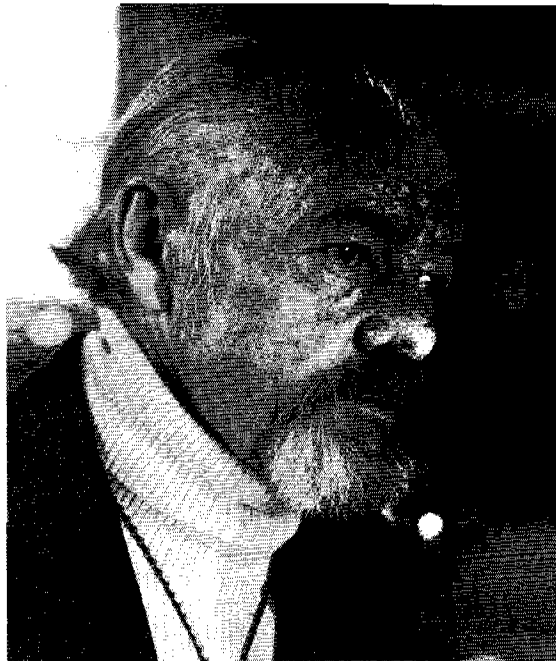
Don Fabun

BIOGRAPHY

Don Fabun has been writing and lecturing on various "futurist" topics, communications theory and general semantics since his retirement in 1974 as Director of Publications at Kaiser Aluminum and Chemical Corporation in Oakland, California. He is writing a college textbook entitled "An Introduction to Communications Theory," for an East Coast publisher, a syndicated weekly newspaper column on life in the "Electromagnetic Age -- Circa 2000," and a television series based on confrontations between environmentalists and developers in a small coastal community. He is also working on a documentary film on cosmic man, and a multi-media dramatization of a psycho-historic concept, "The Changing Images of Man." He is a Trustee of the Institute of General Semantics.

Mr. Fabun was born in Moline, Illinois, spent his adolescent years in California, and received his B.A. in Journalism in 1942 from the University of California at Berkeley. The following years he was in the Merchant Marine in the Pacific. After the war he worked for McCann-Erickson in San Francisco, then joined Kaiser Industries in 1952 as editor of a new "general interest" magazine. From 1953 to 1974 he was editor of the Kaiser Aluminum NEWS, a monthly international "general interest" magazine. During this period the NEWS won 23 national and international awards in its category of publications. The NEWS issue on "Communications: The Transfer of Meaning," summarizing basic formulations of general semantics, has been a popular item on the Institute's book list for many years.

Some of the NEWS issues were put together as chapters in hard-bound books for trade sale by publishers:

The Dynamics of Change (an exploration of philosophic themes underlying the transformation to the "Post-Industrial Age").

Three Roads to Awareness (An examination of human motivation, creativity and communications, with emphasis on Korzybskian general semantics theory). Macmillan, 1970.

Dimensions of Change (An analysis of the technological responses to the philosophic questions raised by the ending of the Industrial Age). Macmillan, 1971.

Australia: 2000! (A study of alternative futures for the Australasian complex, with the suggestion it be used as an international ecologic and socio-economic "laboratory"). Cassell/Macmillan International, 1974.

In becoming immersed in studying general semantics, and later McLuhan, Mr. Fabun wrote us, he "began to wonder whether the precepts of Korzybski would any longer serve as a guide in a world in which time was a construct of space, and space a warped gravitational field. Would non-aristotelianism work in the Electronic Village where the very stuff of perceived reality was but a parable told in the dance of excited phosphors?

These are the kinds of questions that concern Don Fabun, futurist, as he tries to 'see' beyond today's horizon.
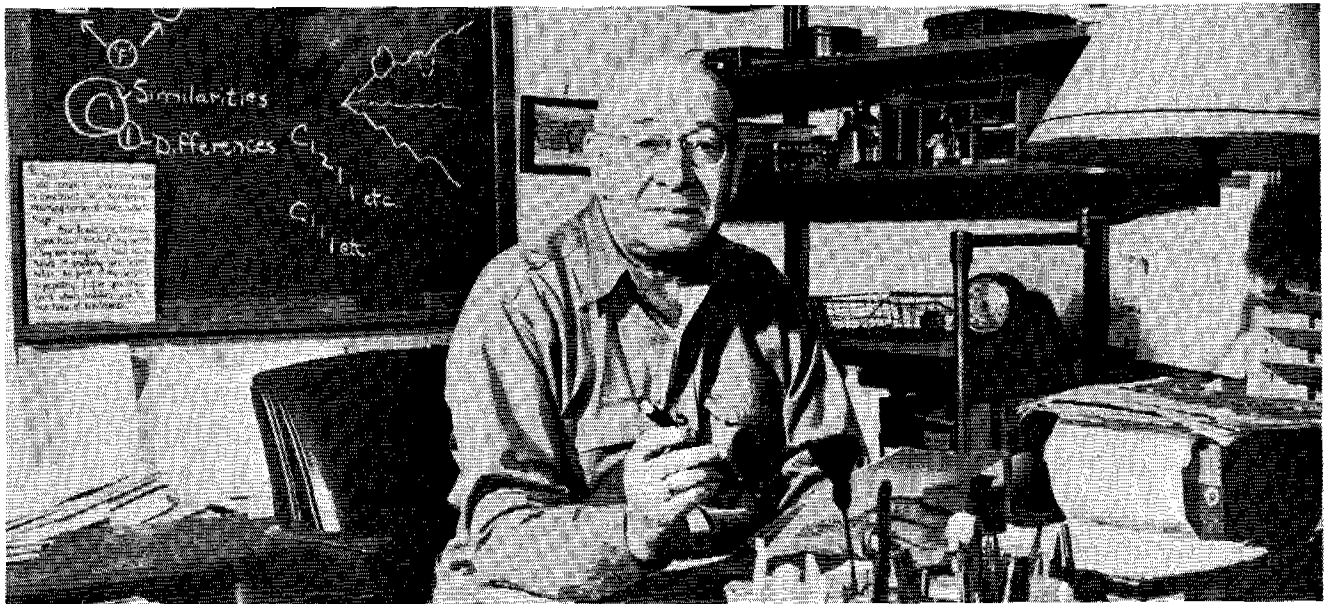
Alfred Korzybski in his Institute office at Chicago, 1944.
Photo courtesy LIFE, © Time, Inc.