editorial

IN THE LAND OF EITHER/OR

IN 1871, BRITISH COLUMBIA joined Confederation on the promise of a railway connection across the continent. In 1876, Alexander Graham Bell made his telephone work. Marconi received the first transatlantic telegraph message in 1901, in Newfoundland. The CBC was founded in 1932. Television came to Canada in 1952. Jet passenger service linked Toronto with Vancouver in 1960. Anik I inaugurated Canada's satellite communications system in 1972. By the end of the 1970's, "fibre optics" and "computers" had become the watchwords of communications analysts and technicians; and in 1980, "Telidon" promised to become the system of the future.

Looking back at this sequence of attempts to conquer distance and time in Canada, we can marvel at the changes that have affected peoples' lives; and we can reflect on the increasing speed with which changes — of magnitude — are taking place. But can we comprehend such changes? We tend to interpret sequential events passively, as though they were merely new stages in a simple-life-unrolling-as-it-should. As though simplicity were still possible. As though new experiences in life are always extensions of the structure of life we already enjoy. Perhaps wishful thinking governs more than we care to admit. Because those who don't "already enjoy" tend to interpret sequential events as though each new one inaugurated a revolution to end all revolutions. Such responses render it difficult both to make credible claims for social stability or to recognize a real revolution when one's in the offing.

David Godfrey, in *Gutenberg 2* (Porcépic), the fascinating volume on the "new electronics and social change" which he and Douglas Parkhill (of the federal Department of Communications) have edited, claims that just such a real revolution is underway. Changes in technology are invoking changes in lifestyle, Godfrey writes, with such speed that they have happened before most people know they are coming; hence the technology is qualitatively altering society and at the same time invoking a new ignorance and a new illiteracy. Who will be involved? Every-

one. Who will be in control? That depends on who remains "illiterate" and who acquires the ability to help shape the connections between technology and social structure.

That computers already are variously aiding, folding, and spindling our lives there is no doubt. In the thirty years since 1950 — from a time when experts thought twelve computers would satisfy U.S. needs to a time when home computers are marketed as a suburban necessity — technologists have evolved micro-transistors, taken advantage of the cheapness of silicon to develop optical fibre communications systems, produced graphics components which have all the clarity of printed diagrams, and adapted other sciences to an exponentially growing machine memory to produce, for example, programmes in sociology and reflexive psychology with all the illusion of objectivity. There are valid applications for such techniques. But it is hard to remain placid when considering all their implications. It is not comforting, in other words, to know that — faced with a question from a machine — many people will be more willing to reply than they would if a human being had asked it, *and more open*, because they attribute to it at once a certain dispassion and a predisposition to listen. One must remember John Madden's solemn observation in *Gutenberg 2*: "computer and telecommunications technologies are *not* neutral and unbiased." Indeed not. They are hailed as the likely replacement for conventional mail delivery and bill collection; computer disc programmes are marked as the probable substitute for newspapers and directories; the systems are claimed as the resolution to problems (of both space and time) affecting telephone communication. The computer can take simultaneous events (like conflicting television productions) and by recording, make them sequential, so that they can all be enjoyed; it can receive messages at awkward hours, and so contend with the dilemmas of time-zone differences; it can take a mass of data which confuses the human mind, and classify and sort it till it becomes comprehensible. Behind these capacities, however, lies the imagination of the programmer. And extrapolated from the computer's proposed functions lie such problems as free choice, privacy, and legal responsibility.

One can rephrase these problems as four questions about any computer communication: who writes it? who controls it? who reads it? and who judges it? For a communications system to work it is clearly advantageous for the elements in it to be standardized. But if standard, do they then come under a single monopoly control? If under a single control, who makes the decisions and who makes the profit? If profit is the motive behind a communications system, and not merely an adjunct to it, does the amount of profit, more than the commitment to sharing information, govern the availability of information? Will there be barriers against some information, and if so, who will be in a position to make appropriate distinctions between, say, openness and obscenity, advertising and economic exploitation, a complex defence of national independence and a simple border-closing profiteer-

ing? If the computer replaces the newspaper, who guarantees that the computer-services will supply the range of information and informed commentary that once characterized newspaper journalism? Who guarantees the privacy of the private letter on computer? If a libel is perpetrated and retrievable on thousands of computer screens, how many court cases, how many courts, how many lawyers will the "new electronics" prompt? What price the freedom to be at once informed and independent?

Questions such as these we have asked in various way for some years, and they underlie a lot of adults' resistance to the computer "revolution." But what often goes unmarked is the fact that the revolution involves not only speed and magnitude but also changes in patterns of thought. Computers are not human; they operate on electrical circuitry which has been designed to select serially between sets of two options. The mathematics which governs them is dual: an algebra of (0,1). In order that the computer might make its "choices," all the information programmed into it must be reduced to an absolute and dual system. The circuitry is either "on" or "off"; the machine either selects or it does not; there are no other options. Which explains why computers continue to have some difficulties responding directly to language. Language is plural, not dual, full of multiple meanings, puns, metaphors, and contextual distinctions, and it depends often on ambiguity more than on categorical clarity for its artistic effects — just as a style of life depends on circumstances, moral understandings, custom, ceremony, and other non-exclusive claims upon a complex heritage. For the mind impatient with ambiguity, intemperate towards relative values, or inflexible about options, dualistic computer logic provides both the security of neat boundaries and the illusion of truth. But unless we wholly restructure our perception of human experience, it must inevitably distort as well.

So much, then, depends upon the programmer's totally human imaginative reach that one must encourage people with a sympathy for the humanities not to flee the computer revolution but to engage with it. Children must discover the freedoms and complexities of both language and number; we cannot sacrifice the future to easy dualisms. Life offers already too many instances of plural truths giving way to circumscribing dualities, in politics and publishing, for example, as well as in technology. Constitutional debates which differentiate between "Canadian" and "provincial" rights as though the provinces were not of their very nature Canadian imply an *either/or* dualism that the plural nature of the Canadian Confederation will not justify. Publishing houses which sacrifice the original and the unusual in order to print only the familiar and the commonplace might maximize their profits but will not sustain the culture. Critical and pedagogical methodologies which narrow the options for creativity and learning, rather than enhance them, will — because (often unwittingly) they predefine art and thought — inescapably inhibit both art and thought. It need not be an *either/or* world in which

we live. We can still choose. If the communications revolution keeps its goal — communications, not revolution — clearly in focus, then it carries the promise of further enfranchisement and opportunity for understanding. But it cannot do this if people remain passive about their own future. The computer, that intricate servant, that possible master, that biased machine, awaits the plural mathematics of the humanist's mind.

W.H.N.

THE POETS MELT ON WINNIPEG BEACH

Francis Sparshott

Mayday. Three poets walk between ice and sand,
three poets.
One on the lifeguard station
stares away sunward over the soiled beach
hugging his old knees;
one poet.
One with her eyes black-framed
aiming a black pen at the black book
on her black lap makes the white pages tremble:
one poet.
One that I could not see,
one I have never seen,
one poet.
They hold up the ice to the sun,
exlaiming together in their hoarse voices
because the crystals die with a faint chant;
but the sky is suddenly filled with stretched necks
of geese going over in their changing skeins
and a babble of nests in the clear north.
Three poems are written between sun and sand.
Geese in three poems
strut on the beach. The air fills
with words going over in their changing skeins
calling each other hoarsely, urgently
home to the clear north.