successors seems to be that long-distance communications will be conducted by high-powered satellites using relatively inexpensive low-powered ground stations. Low-powered parabolic dish receivers designed to sell for under $200 are already being introduced in Japan. In the near future, community antennas or receivers on home rooftops may be able to pick up satellite signals directly. Satellite transmission costs from Montreal to Toronto are the same as from Montreal to Vancouver, abolishing distance as a meaningful concept in telecommunications.

The success of Canada in taking full advantage of the new information technologies, and avoiding dependence on imports with a consequent loss of industry and jobs, depends in part upon the capabilities of the Canadian telecommunications system. That system, built to hold the country together over vast distances and formidable geographic barriers, is among the most extensive and sophisticated in the world. But the components of this system — the telecommunications carriers, the broadcasters, the cable-TV operators and others — are beginning to wonder what their

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Fibre optics, hair-like glass strands that carry many times more information than conventional copper cables, can convey many forms of communications — telephone, radio, television and data communications.

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future roles will be. To respond to this uncertainty and suggest a future strategy, in November 1978 the federal minister of communications appointed a consultative committee on the implications of telecommunications for Canadian sovereignty. The committee, in its March 1979 report, *Telecommunications and Canada,* stated that it is no longer possible, as it was 10 or 15 years ago, to distinguish between the technologies of telegraphy, telephony, radiocommunication and computers. All are used in almost every mode of telecommunication, either in combination or in competition, thus undermining the structure of communications that developed over the last 130 years.

16.2 Telecommunications carriers

Canada's telecommunications carriers own and operate a large proportion of the vast Canadian telecommunications network. They are required by law to continue carrying their user calls, messages and other information at a reasonable cost without changing their contents. With $17 billion invested in plant, the industry is expanding at a rate of more than $2 billion a year. Investment for 1978 was almost $2.9 billion, a figure expected to reach $4 billion a year by 1985. The industry anticipated that its capital investments would add up to $60 billion by 1990. Much of this money would be spent on development and deployment of the new information technologies.

The Canadian Telecommunications Carriers Association (CTCA), established in 1972, provides the framework for co-operation on an industry-wide basis between major telecommunications carriers. The association consists of 20 telecommunications carriers, each represented on the board of directors. It brings together in one organization the TransCanada Telephone System (TCTS) and its 10 members, the Canadian Independent Telephone Association (CITA), six other telephone companies, Canadian National and Canadian Pacific Telecommunications and Teleglobe Canada.

The CTCA speaks to government on behalf of its members. In a brief presented in January 1979 to the committee on the implications of telecommunications, CTCA described the ferment brought about by the new information technologies among the major players on the communications stage — broadcasters, common carriers, cable television, federal and provincial governments and regulators. In what might be described as a series of debates, written and verbal, public and private, in and out of the courts, they were trying to arrive at some semblance of consensus on each of many policy questions that had arisen as new technologies emerged, bringing with them new markets, new opportunities and new threats to existing interests.