Public telegram volumes have gradually declined since 1956, while the use of telex and the Teletypewriter Exchange Service (TWX) has grown correspondingly. But the telegraphic services still respond to the need for messages relating to social activities, as well as to the needs of people who are not telex or TWX users. In some areas local telegraph offices have been closed because of the fall in business, and replaced by toll-free telephone service to the nearest area telegraph office.

In contrast to citizens of other countries, most Canadians tend to file messages at telegraph offices by telephone or telex. Only a small number of messages are filed in person at the counter.

The new information technologies have already invaded the telegraph office. Once a message is filed, it is entered directly into a mini-computer with the aid of a keyboard and visual-display unit. The mini-computer is used to edit the message and place it in the appropriate format. After indicators of its destination have been inserted, the message is released into store-and-forward computers. The message finally appears on a teleprinter terminal and is delivered by telephone, mail, telex or personal delivery.

Electronic mail has long been regarded as one of the services which the new information technologies would render possible. CNCP Telecommunications and the Canada Post Office have taken the first step in this direction with the introduction of a new service called Telepost. This service permits messages filed with CNCP to be transmitted to the postal centre nearest the addressee. The local mailman then delivers the message. This service is available across Canada and the United States.

The federal Canadian Radio-television and Telecommunications Commission (CRTC) regulates the operations of CNCP Telecommunications.

Telex and TWX. Each year, more than 3.8 million telex and TWX messages to overseas points are switched through the facilities of Teleglobe Canada. The total worldwide complex provides access to more than 800,000 subscribers.

Telex, the first North American dial-and-type teleprinter service, was introduced to Canada by CNCP Telecommunications in 1956. In April 1979 it had more than 41,000 customers and 130 exchanges across Canada. In 1978, it interconnected with about 110,000 telex teleprinter units in the United States, and about 500,000 units around the world. TWX, owned and operated by the TransCanada Telephone System, has some 5,100 subscribers in Canada with the capability to reach TWX users in the United States. An agreement between TCTS and Western Union Telegraph Co. enables Canadian TWX users to reach American TWX users.

Telex and TWX are now considered universal services. They are available to some 185 countries, half of them linked to Comtex, a computer-controlled exchange permitting subscriber-to-subscriber dialing without the assistance of an operator. Computerized switching integrates the Canadian domestic telegraph network with the overseas network. The switches can handle as many as 4,000 messages an hour.

Data communications and other new services   16.2.3

Data or computer-communications services are forerunners of the new telecommunications services which will be available in the mid-1980s when the new information technologies have entered the marketplace. At present most Canadian data communications services are provided by the two major national telecommunications carriers, TCTS and CNCP Telecommunications, to business, industry, government, educational institutions and other specialized users. These new information systems have become basic professional tools in many instances.

Data communications services are capable of handling vast amounts of information. These services represent one of the first and most significant marriages between computer and telecommunications technologies.

TCTS and CNCP compete vigorously for the growing data communications market. Both have introduced a number of competitive data services and terminal offerings on both leased (private) circuits and public switched networks, each capable of handling up to 56,000 bits of information a second. These services include computerized store-and-forward message systems and provision of many different teleprinter, facsimile and cathode ray tube terminal offerings.