TELIDON TRIALS + SERVICES

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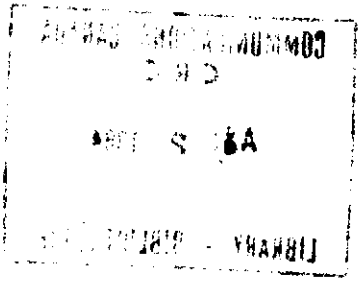
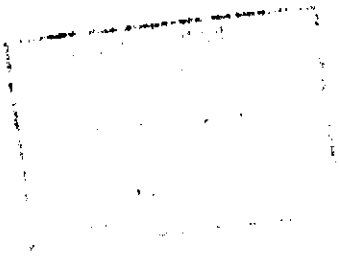
Government of Canada
Department of Communications

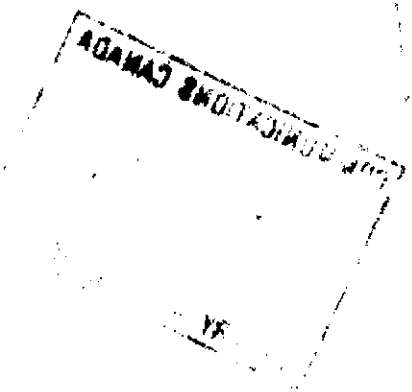
Gouvernement du Canada
Ministère des Communications

Canada

TELIDON TRIALS + SERVICES







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Foreword

Videotex and teletext are generic terms for the new interactive two-way, and one-way information systems which are able to use a TV screen as the display device. These systems involve the provision of text and graphic information services between two terminals, multiple terminals and a remote data base, or between multiple terminals and a broadcast (one-way) teletext service. In Canada the name associated with these types of services and the technology used is Telidon.

It is generally agreed that before widespread use of a new technology can become a practical reality, it must first be tested in real life situations to ensure its technical and operational feasibility. Similarly, before a new service can be offered extensively, it must first be tested by potential users to determine its commercial viability. The development of Telidon, which is both a new technology and a new service, has been no exception. Indeed, recognizing the importance of field trials for the successful development of this new technology, the Department of Communications devoted a significant part of its efforts and resources in the Telidon Program to promote and support Telidon field trials since the announcement of the program in 1978.

Over the past four years, more than 40 Telidon trials and services have been implemented in Canada, the United States and around the world. They have contributed significantly to the international acceptance and recognition of Telidon as a superior technology for videotex and teletext services. They have helped to build a healthy and growing Telidon industry by creating the crucial initial demand for hardware, software and services. More importantly, because of the success of many Telidon trials, Canadian videotex and teletext services are now poised for full-scale commercial exploitation.

This document provides a concise description of most Telidon field trials and commercial services. It is in part a response to frequent inquiries received by the Telidon Program office concerning these trials and services. It is hoped that the document will prove to be a useful and informative source of information on current Telidon services.

It should be noted that because of Telidon's dynamic evolution, the coverage of installations is not exhaustive, although an effort has been made to make it as complete as possible. As well, the information presented is subject to change. For more up-to-date or detailed information on a particular trial or service, the system operator should be contracted.

Finally, I would like to take this opportunity to express my sincere thanks to Mr. J. Feeley, Director General of the Informatics Applications Management Branch of the Department of Communications, for his support and encouragement in publishing this document, and to Mr. B. Crozier, Mr. R. Vaive and Mr. J. Horvath of the Field Trials Directorate, who have, with their collective effort, made this document possible. Mr. Crozier's patience and dedication in the overall co-ordination of the task warrants a particular mention. Also, Ms. N. Dell and S. McDonald's assistance in editing is gratefully acknowledged.

Keith Y. Chang, Ph.D
Director, Field Trials
(613) 995-5081

August 1983

For further information on the videotex industry in Canada, the reader is encouraged to contact the following associations:

Videotex Information
Service Providers
Association of Canada
Suite 1007
130 Albert Street
Ottawa, Ontario
K1P 5G4
Tel. (613) 236-4786

Canadian Videotex Industry
Association
717 Parkdale Avenue
Ottawa, Ontario
K1Y 1J5

Tel. (613) 729-5397

Canadian Trials and Services

National

Telicom — The Demonstration Data Base

To promote the Telidon technology, the Informatics Applications Management (IAM) branch of the Department of Communications (DOC), provides leadership for the development of new and innovative Telidon services. The Telidon demonstration data base was developed to further this objective.

Created in August 1978, the data base is used to demonstrate the Telidon technology and its potential. The service offers information on videotex services and applications, related government programs and industrial and field trial developments. Groups involved with Telidon contribute pages to the data base describing their services and Telidon-related activities.

Operation of the data base also helps government and industry users to improve their skills in research and development and data base management. These groups can use the data base to test new services and equipment. An "action page facility" for users to carry out interactive functions, is being designed to help the industry develop new applications, using impartial resources. The data base provides the opportunity for companies to display limited information or service packages and evaluate user reaction to content and applications innovations.

Since 1978, the data base has undergone content and equipment modifications. Today, under its new name Telicom, it comprises two basic elements: information about Telidon and a showcase for new videotex services. The data base features a new structure, extended menus, keyword access and indexes, and an action page facility demonstrating Telidon's highly interactive capability. Recently, the data base was reorganized as the transition was made from the original "699" standard to the recently adopted North American Presentation Level Protocol Syntax (NAPLPS). Existing information in the 699 format was converted and placed in the NAPLPS data base. In future, only the NAPLPS data base will be updated, as the older service is phased out.

The software supporting Telicom is the GENESYSTEM™ GVS V5.0.

The service is available to those now using or participating in the development of the technology, or those who demonstrate a genuine interest in Telidon. General access or closed user group account numbers are assigned by DOC to access the PDP-11/44 computer through direct dial (202, 212, Vadic, or split-speed 1200/150 baud modems) or Datapac.

Telidon Demonstration Data Base

Start date: August 1978

Duration: Continuing

Sponsors: Department of Communications,
(613) 996-4351

Market:
- anyone involved in Telidon

Information and services available:

Introductory information on Telidon:
- its development
- the technology
- the industry
- federal programs
- the trials
- demonstrations by DOC and industry of innovative applications and features including: extended menus, keyword access and indexes, industry created action tasks and services for closed-user groups

Method of delivery:
- direct dial telephone and Datapac (212, 202, Vadic and 1200/150 baud modems)

Equipment:
- PDP-11/44 computer
- GENESYSTEM™ GVS V5.0 data base management software

Other:
- NAPLPS, 699-E, and 709-E videotex protocols
- System management is presently contracted to the Genesys Group of Ottawa

BN Infovision — Broadcast News Ltd.

BN Infovision is a Telidon-based news service developed specifically for cable television by Broadcast News Limited, a national news agency serving Canada's radio and TV broadcasters and cable operators. Broadcast News (BN) is an associate company of The Canadian Press.

Infovision, produced both in English and in French, is an open channel teletext system utilizing Telidon graphics to illustrate and enhance the news, business, sports and weather material that make up a 30-minute information package.

Infovision keeps viewers informed with up-to-date information that's easy to read and easy to digest. Editors at the BN bureau in Toronto produce the English segment while their colleagues in Montreal produce the French segment. But by fall 1983, when Infovision becomes nationally available, writers at BN bureaus throughout the country will be able to input news directly to the Infovision host computer at Toronto.

Infovision market trials started in December 1982 on Rogers Cable TV in Toronto. Rogers Cable has been displaying the service from 4 p.m. to 8 a.m. weekdays. In April 1983, Cable TV Ltd., a Montreal cable system, became the first company to display Infovision, in both French and English, on a 24-hour basis.

During the current phase of the project, the host computer in Toronto puts out a continuous feed of the Infovision package, which is displayed as received. In the fall, when the service becomes fully operational, the host computer will transmit only new or updated material.

Local packaging and cycling of the service will be done by Selector/Cyclers, specially-designed microcomputer devices located at each cable TV company. The Selector/ Cyclers, once the schedule is programmed by the cable operator, will receive individual items from the host computer, store them in order of category and priority, and retransmit them. Cable TV companies subscribing to Infovision will also have the option of inserting their own local information.

Each Infovision item is assigned a code specifying category, priority and region of interest. For example, some items may be routed specifically to the Atlantic region, others to British Columbia. Editors also use codes to select illustrations (presently 1,000 choices) from the ever increasing graphics library stored in the host computer.

Infovision is designed to allow editors to instantly update or add information, the computer then automatically breaks the items into pages. Editors may even elect to allow the computer to automatically select a representative graphic to supplement text.

Commercial Service

Start date: December 1982

Duration: Continuing

Sponsors: Broadcast News Limited
(416) 364-3172
The Canadian Press

Market:
- Phase one
selected Ontario and Quebec cable companies
- Phase two
all Canadian cable companies

Information and services available:
- cotinuously updated international, national and regional news, sports, business, entertainment and weather information enhanced by Telidon graphic illustrations
- locally inserted community news and information

Method of delivery:
- CNCP 1200 baud digital infodat circuit

Equipment:
- Digital PDP-11/24 computer
- Broadcast News/The Canadian Press text processing system
- Norpak IPS-II page creation terminals
- Norpak Mark-IV decoders
- Zenith video encoder
- Selector/Cycler

Other:
- NAPLPS protocol
- Service charges: based on the number of subscribers to the cable TV system, for details contact BN Marketing

CanTel — Government of Canada

Cantel is the Government of Canada's Telidon information bank. It was developed by the Task Force on Service to the Public (Supply and Services Canada) as a means of improving public access to information about federal programs and services. With more than 55,000 pages, in English and French, Cantel is the largest publicly available government data base in the world.

Using illustrations, text, maps, quizzes and charts, Cantel provides a vast range of information, including:

- details people require on a daily basis -- for example, how to obtain a passport or birth certificate, where to find pension information;
- facts on Canadian lifestyles -- car fuel consumption rates, the metric system, postal service, consumer rights;
- statistics on Canadians, the economy, the environment;
- knowledge about Canada -- tourist attractions, regional festivals, national parks;
- practical features such as the 2,500-page National Job Bank of the Canada Employment and Immigration Commission;
- technological explanations -- CANDU reactors, satellites, radio and television, research and development in specialized fields.

Through public terminals equipped with alphanumeric keyboards, people can order a selection of free government publications by choosing the titles they want and their names and addresses.

Included in Cantel are 60 modules that were designed specifically around Telidon's graphics. The Canadian Wildlife Service field guide to birds, for example, uses Telidon's superior graphic capability to portray Canadian wildlife.

Another Cantel feature is the Index to Federal Programs and Services which describes 1,100 Government of Canada programs, where to find more information about them, federal addresses and phone numbers across the country and a list of all the federal government's toll-free telephone numbers.

As Cantel was created for use by Canadians, Telidon terminals have been installed where people can readily use them — in Canada Service Bureaus in 14 cities, shopping centres and libraries. Access is also provided to provincial and national field trials such as Manitoba's Grassroots, B.C. Tel, Pathfinder and iNet. In all, more than 1,800 Telidon terminals have access to Cantel, including 25 in External Affairs posts around the world.

Keyword access using the alphanumeric keyboard has simplified access to Cantel.

Infomart presently manages the data base which is stored on a DEC/VAX computer. User terminals are manufactured by Electrohome.

Market Trial

Start date: March 1981

Duration: Continuing

Sponsors: Department of Supply and Services,
Mance Carbery (613) 593-6342
Department of Communications,
(613) 995-5081

Market:
- public users via service bureaus and local data bases in major cities throughout Canada

Information and services available:
- information on government, tourism and job opportunities

Method of delivery:
- telephone lines

Equipment:
- 100 Electrohome integrated terminals
- DEC/VAX computer

Other:
- NAPLPS protocol
- system management is presently contracted to Infomart, Ottawa

Health Care Information System — Canadian Hospital Association

The Canadian Hospital Association (CHA) is starting a project to establish a Telidon data base service as a major source of information for the Canadian health care industry. The project is intended to promote the utilization of electronic information systems in Canadian public health.

This national service will become available in September 1983. At that time, any Telidon compatible decoder will be able to dial into the central data base in Ottawa. This turnkey GENESYSTEM™ will initially contain 2,000 pages of information, which will be seperated into three tiers: administrative, critical/emergency medicine, and computer assisted instruction and training. These tiers, will include information on such topics as labour relations, hospitalization, and cost statistics, as well as drug and poison information, poison treatment, medical device information and newsletters. Although there may be a nominal charge for use of the service, like the CHA, the service would be non-profit.

Future stages will see the development of a linked network of regionally distributed data bases, with the Ottawa node as the main data base and network control centre.

Commercial Service

Start date: September 1983

Duration: Indefinite

Sponsors: Canadian Hospital Association,
Paul Hurley (613) 238-8005
Department of Communications,
(613) 995-4376

Market:
- health care industry
- provincial hospital associations
- hospitals and clinics

Information and services available:
- poison control data base
- medical devices data base
- drug information
- newsletter
- education and training

Method of delivery:
- dedicated and dial-up telephone lines (1200/150 baud and 212 modems)

Equipment:
- VAX with GENESYSTEM™ software
- 1 Norpak IPS-III page creation terminal
- 4 Norpak MK-IV decoders
- 12 AEL Microtel terminals

Other:
- NAPLPS protocol

iNet™ — TransCanada Telephone System

iNet™* is an intelligent network developed by the TransCanada Telephone System (TCTS) to address the needs of the information industry in Canada. In co-operation with service bureaus, publishers and businesses, iNet currently provides over 400 trials users with an electronic directory of videotex and traditional data services, automatically switching them to the service of their choice. iNet users include financial and business institutions, service groups, research and communications companies, legal and petroleum organizations, real estate brokers, travel agents and government.

A mix of 150 alphanumeric and 250 alphageometric (Telidon) terminals are in use, including 125 Telidon-compatible Displayphones (desk top integrated voice/data units). Approximately 30 information providers offer more than 500 services to the users. The network supports a wide range of terminals and can provide information in French or English. The user can tailor the network services to meet specific personal, business, or closed user group needs.

iNet provides a gateway to an array of services for a variety of information users and promotes a universally accessible information environment. It is worth noting that TCTS has developed value-added features for the service using the Datapac (packet-switching) network to serve not only an existing customer base, but a whole new group of potential network users. iNet can also integrate an expanding range of stand-alone services, such as messaging and videotex, into one consolidated system.

Until now, network users had difficulty learning what information is available and how to obtain it. iNet offers electronic directories of all the information services, subjects and vendors available to the user. These iNet directories pull together into a cohesive package the multitude of information sources that the network can access.

Four directories are available; two are vendor-defined, (the content is determined by vendor listings) and two are user-defined (users specify listings they want displayed regularly). Users may choose to have a personal directory offering a short list of services they may want on a daily basis. In addition, a business community or corporation may define listings it wants its' members to use.

* This description is based on an excerpt from the paper "A national videotex intelligent network and its role in the information industry", presented at Videotex '82, New York, June 28-30, 1982, by Gwen C. Edwards.

iNet's public directory lists the nationally available information services. Its close affiliate is the regional directory which lists similar services in a particular region, such as grain commodity information for mid-western farmers, or tour information for visitors to Toronto. The vendor decides whether its services should be listed in one or more regional directories, the public directory, or both.

Access to information and services is simplified for the user through auto-access precedures, allowing the user to access any selected information service via one-button access. Such ease of access is inherent in the iNet service concept. There is also a personal profile feature which defines the user's level of expertise and language preference and contains a personal directory to allow fast access to his most frequently used services.

As with any software system, the user signs on to iNet with an authorized identification code. However, this is the only "handshake procedure" required during an iNet session - regardless of how many hosts are accessed. Services are delivered through the directories described above. Once the user identifies a choice, the system automatically connects him. Simply stated, the user can move from one host to another with the push of a button. He will be returned to the directory starting point at the end of his session with each host.

Users must establish separate contracts with each commercial information or service vendor. An administrative function for users to establish accounts and an accounts receivable management service for vendors to collect accounts have been developed. The user receives one monthly bill for all services accessed using iNet.

The potential for growth in electronic mail and messaging services is well recognized by the carrier and service providers. iNet's message handling capabilities allow user-to-user and user-to-host messaging for text and videotex services such as messaging and transactions.

Other significant iNet features are embedded in the network technology. For example, iNet offers a conversion process for alphageometric terminals to access alpha-numeric data bases, greatly reducing the problems of speed and code conversion between incompatible terminals and hosts. Such functions, which allow access to numerous videotex hosts as well as many non-videotex services, are critical in consolidating the current proliferation of independent videotex systems.

Following this limited field trial of iNet, TCTS plans to undertake a market trial with a rate structure for users and information providers. If that trial is successful, TCTS will introduce iNet as a national service.

LIST OF INFORMATION PROVIDERS AND SERVICES CURRENTLY AVAILABLE THROUGH iNet

General

- Bibliographic Retrieval System
- CAN/OLE - Canada Institute for Scientific & Technical Information (CISTI)
- CATSUP - Carleton University
- Data Resources Inc. (DRI)
- InfoGlobe
- Informatech
- I.P. Sharp Associates
- DOBIS - National Library of Canada
- New York Times
- Official Airline Guides (OAG)
- QL Systems
- SDC/Orbit
- Envoy 100 - TransCanada Telephone System
- Guelph On-line - University of Guelph
- BADADUQ - Université du Québec

Videotex Related

- Telidon by B.C. Tel - B.C. Telephone
- Vista - Bell Canada
- Canada Systems Group (CSG)
- Telicom - Federal Department of Communications
- Marketfax - Faxtel
- Financial Post
- Grassroots - Infomart
- Teleguide - Infomart
- Datavision - N.B. Tel.
- Newfoundland Tourism - Newfoundland Telephone Company
- CANTEL - Supply & Services Canada
- Novatex - Teleglobe Canada
- BTS - TransCanada Telephone System

iNet™

Commercial Service

Start date: July 1982

Duration: One year pre-commercial technical trial

Sponsors: TransCanada Telphone System,
Gwen Edwards (613) 239-4301

Market:
- financial, business, service groups and governments
- the field test involves 150 alphanumeric (A/N) and 250 alphageometric (Telidon) terminals

Information and services available:

Keyword accessible gateway to:
- 13 commercial alphanumeric information host systems (2 free of charge)
- 21 videotex (Telidon) related information provider systems
- inter-user electronic messaging service (Envoy 100)
- personalized accessing/indexing
- data-rate and code interfacing

Method of delivery:
- Datapac, packet-switching network

Equipment:
- tandem switch (gateway processor)
- 125 Northern Telecom Displayphones (Telidon compatible)
- 125 AEL Microtel integrated terminals
- 150 alphanumeric terminals

Other:
- conversion to NAPLPS, summer of 1982

Marketfax — Faxtel

Unlike most Telidon trials, Marketfax has operated as a commercial service from the beginning. A stock-market analysis service, Marketfax produces color charts with high, low and close data for the preceding 100 days, weeks or months. It also provides trend line and net volume line analysis, moving average lines, oscillator lines showing the difference between moving averages, and point and figure charts. Marketfax is not simply a stock-trading system. It is a sophisticated analytical tool for users to make immediate stock market decisions.

More than 40 users in brokerage firms and financial institutions are now using the service and this number increases monthly. Marketfax is also available through other systems including B.C. Tel.

The service provides more than 300,000 pages of information about the performance of stocks traded on the Toronto, Vancouver, New York and American Stock Exchanges on an on-line or demand basis. The service uses software on a VAX-VMS system to create Telidon-based charts. The host computer is a VAX-11/780 with 127 ports. Access is by Datapac in Canada, Telenet and Tymnet in the United States.

A recent innovation includes Telichart, in co-operation with Statistics Canada. Telichart converts vast quantities of numerical data into readily understood line and bar charts. It can depict and convert one set of data into another and can produce projections using these statistics.

The Marketfax data base is owned by Faxtel and Cableshare provides the data centre.

MARKETFAX

Commercial Service

Start date: February 1982

Duration: Continuing

Sponsors: Faxtel,
John McLauchlan (416) 365-1899

Market:
- brokerage firms, financial institutions and private investors

Information and services available:
- 300,000 pages of information
- stock-market analysis

Method of delivery:
- telephone lines (Datapac)

Equipment:
- VAX-11/780 with 127 ports
- 2 Cableshare Picture Painters
- AEL Microtel and Electrohome user terminals

Project IRIS — Canadian Broadcasting Corporation

In November 1981, the Canadian Broadcasting Corporation (CBC) and DOC announced an agreement to conduct a series of trials to test the feasibility of introducing a national teletext service. Project IRIS (Information Relayed Instantly from the Source), will consist of extensive residential and public teletext trials, offered in French and English in Montreal and Toronto and in English in Calgary. Terminal installation began in December 1982 and and will continue until August 1983.

Approximately 250 screen pages of information per broadcast cycle are available for over 500 trial participants and viewers with teletext decoders. These pages will be updated in response to changing external events and to the time of day. The service will be transmitted throughout Canada using lines in the vertical blanking interval of the two CBC national network television signals. Pages are updated throughout the day, allowing users to access an average of 600 pages during a full broadcast day.

Initial teletext programming includes a mix of national, regional and local news, sports results, weather and traffic conditions, community events, children and consumer interest guides, radio, television and film guides, lottery results, etc. Additional features to be tested include newsflashes and subtitling for special interest groups.

Since the number of pages in a broadcast cycle is limited by the acceptable access time to the user, it is estimated that about 250 screen pages will compose the broadcast cycle at any given time during the day. Through user surveys, CBC is monitoring user reaction to the service to evaluate the public's response to new uses for their television receivers and the potential use of teletext as a vehicle for providing program support to existing television and radio services.

One of the principal aims of the CBC trial is to evaluate home user reactions to the actual teletext content in order for the CBC to determine the nature of a future national service which will serve all Canadians. Content will be adjusted in response to viewer's needs and demands and will be tested by special interest groups such as farmers, truckers, etc.

With a potential CBC audience of 24 million Canadians, the manufacturing of teletext system components represents an important opportunity for Canadian industry to manufacture equipment, software and information content for use in Canada and abroad.

IRIS

Market Trial

Start date: December 1982

Duration: Continuing

Sponsors: Canadian Broadcasting Corporation,
Marius Morais (514) 285-2614
Department of Communications,
(613) 996-4351

Market:
- 500 terminals to be used in over 500 households and public locations in Montreal, Toronto and Calgary, and in CBC owned and operated stations across Canada.

Information and services available:
- 250 screen page broadcast cycle (at any given time during the day) up to 600 different pages throughout a full broadcast day
- teletext programming will include: national, regional and local news, weather, sports and traffic conditions, community events, children and consumer interest guides, radio, television and film guides, lottery results, etc.

Method of delivery:
- teletext data (5.73 Mb/s) on lines 15, 16, 18 and 20 of the vertical blanking interval (VBI) in the two CBC national network television signals (English and French) and in the local signals of the three test areas

Equipment:
- DEC/10 host computer
- encoding and insertion via multicycle feeds on PDP-11/24 computer using Norpak TES inserter hardware
- CBC/Norpak customized page creation hardware and software
- Norpak MK-IV teletext decoders

Other:
- NAPLPS protocol
- NABTS teletext specification

RIDS System — Department of National Defence

The Department of National Defence is using Telidon to upgrade the battle management display system at its' Canadian Forces NORAD facility in North Bay, Ontario. This system, which became operational on June 1, 1982, is the first such use of videotex within NORAD.

The Telidon based Region Operations Control Centre Information Display System (RIDS) provides the timely, and easily digestible information which is required in the operation rooms of the NORAD control centre. This security classified facility monitors the status of all Air Force facilities in Canada. Because of security constraints there is no remote access into the system: information is transmitted into the centre from all across Canada and is then entered into the dedicated command support system in the form of map overlays, graphic symbols, and status reports. Through 24 interactive displays, command staff can retrieve critical information on such things as maintenance control, weather, battle management and military intelligence. The rationale for using Telidon was that it was readily available, provided variable resolution high quality graphics, and was less than a tenth of the cost of comparable systems.

Systemhouse Ltd. of Ottawa developed and installed the RIDS system under a fixed price contract of $500,000. Through custom software developed by Systemhouse, defence staff at 14 of the 24 operation stations can retrieve and update action pages using Norpak Telidon terminals. These pages are then stored on a dedicated PDP-11/24 and its' backup. The system has capacity for up to 20,000 pages and 32 operation stations, and the Department of National Defence is planning to increase the number of operation stations in use to 28. Each operation station can support 6 display monitors.

National Defence System

Start date: June 1982

Duration: permanent

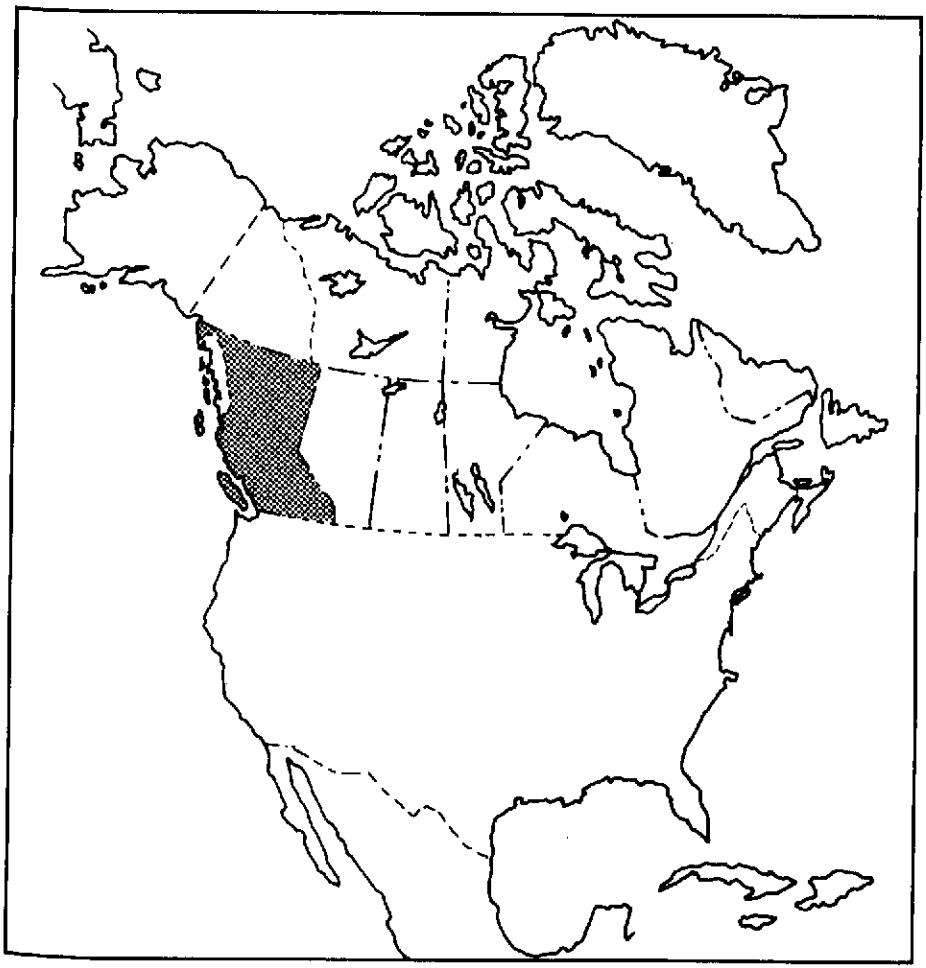
Sponsors: Department of National Defence,
Captain Barry Armstrong
(705) 474-6600 ext. 7617

Market:
- military information systems

Equipment:
- 24 Norpak operator stations (14 keyboards, 10 keypads)
- 1 Norpak IPS-II page creation terminal
- 2 DEC PDP-11/24 computers
- DOC data base management software (Systemhouse modified)

Other:
- Systemhouse Ltd. designed and installed the RIDS system
Atul Srivastava (613) 526-0670

British Columbia



British Columbia Telephone Company Telidon Trial

During the British Columbia Telephone Company's $3 million field trial, alphanumeric business terminals and Telidon terminals accessed inter-user messaging, interactive programs and information retrieval services for government, business and specialized consumer users. Designed to expand the capabilities of existing networks, the service offered keyword access for information within local data bases and a gateway to other Telidon data bases across Canada, as well as non-Telidon services including the Envoy 100 messaging system.

B.C. Tel is a private company providing telecommunications services throughout British Columbia. With revenues exceeding $1 billion, it is the second largest telephone company in Canada.

During the trial, B.C. Tel provided the telephone distribution network, free data base storage and indexing, and project management and evaluation. DOC contributed nearly a quarter of a million dollars in equipment. Page creation services were provided by Canada Videotex Systems, Dominion Directory and Videolink.

The trial was designed to identify a market for a Telidon service in British Columbia and determine how to best serve users' needs. Initially, groups already paying for related services were approached to participate in the trial, including government, financial institutions and the hospitality industry. As service providers in their own right, these groups require a medium where information is accessible, accurate, timely and well presented. Through contracts with page creation companies, these users created their own data bases totalling approximately 6,000 pages and stored on B.C. Tel's PDP-11/70 computer. Terminals were placed in 125 locations including government offices, private companies, high traffic public areas and a Franco-Columbian organization.

Despite the limited number of terminals, over 5,000 people used the system each week to view more than 100,000 pages of information. The trial's success established B.C. Tel as a leader in the development of Telidon services. The company's wholly-owned subsidiaries, Microtel Pacific Research Ltd. and AEL Microtel Ltd. have also become leaders in Telidon research, development and manufacturing.

On July 1, 1982, at the end of its field trial, B.C. Tel announced a market test to establish the economic viability of its system.

For this market test, the number of terminals has been increased to 200 and information suppliers pay for page storage, advertising and some specialized applications. Monthly storage fees range from $2 per page, to $1 per page for more than 1,000 pages. Public terminals and data lines are provided free.

Terminals for the B.C. Tel market trial have been converted to the NAPLPS standard.

B.C. TEL

Market Test

Start date: November 1981

Duration: 8 months, followed by an 11 month market test

Sponsors: British Columbia Telephone Company,
Eric Lin (604) 432-2875
Department of Communications,
(613) 995-5081

Market:
- 200 users in government, finance, and hospitality industry
- approximately 150 public access terminals

Information and services available:
- 6,000 page keyword accessed data base
- travel and tourism information
- entertainment information
- stock market and commodity reports
- real estate listings
- Provincial government services listing
- inter-user messaging (Envoy 100)
- gateways to various videotex and non-videotex data bases across Canada
- supports alphanumeric terminal access

Method of delivery:
- direct dial telephone and Datapac (1200/150 baud modems)

Equipment:
- PDP-11/70 computer
- DOC data base management software (B.C. Tel modified)
- 200 AEL Microtel integrated terminals (keyboards)
- 2 publicly accessible Norpak IPS-I page creation terminals

Other:
- service charges
  - page storage - $2/page/month (max.)
  - gateway connection charge - 50¢/connection
  - transaction handling fees - 50¢/transaction
  - regular telecommunications costs
- NAPLPS conversion completed early 1983

Alberta

Alberta Government Telephones' Telidon Trial

The Alberta Government Telephones (AGT) trial involving six educational institutions and seven libraries in Alberta, has been conducted since 1981. Public users at Alberta Education Correspondence Schools and the Calgary public library, Southern Alberta Institute of Technology library, University of Calgary library, and Mount Royal College library have access to nearly 5,000 pages which are continually being updated by the participating institutions. AGT structures the indexing of the data base and provides guidance and page creation training to the institutions. Designing their own pages allows trial participants to maintain direct control over the development of their services.

AGT is the third largest telephone company in Canada. A Crown corporation regulated by the province of Alberta, AGT is responsible for telecommunications throughout the province, excepting local service in the city of Edmonton.

Operating with a budget of approximately $1 million dollars, AGT pioneered Telidon services by purchasing 30 Telidon decoders, a PDP-11/70 host computer, software and modems. Also AGT received, on loan from DOC, 5 page creation terminals and 12 Telidon decoders. Responding to requests for service on a first come first served basis, AGT distributes the service via dial-up and packet-switching networks and charges users only for telecommunications costs.

The field trial meets the needs of users and helps AGT to identify the requirements of data communications networks. The success of the service so far has led the Southern Alberta Institute of Technology to purchase equipment to develop its own system for internal applications and the Alberta Education Correspondence Schools plan to offer their Telidon courseware in more school systems. In addition two new Telidon related companies have been established in Alberta: Tayson Information Technology Inc. and Time Shift Video Systems.

AGT is developing plans for in-house applications, and continues to examine the issues relating to commerical services.

AGT
Telecommunications

Service Trial

Start date: September 1981

Duration: 21 months

Sponsors: Alberta Government Telephones,
Bob Crowle (403) 231-7348
Department of Communications,
(613) 995-5081

Market:
- public users at 7 libraries in Calgary and in 6 school systems throughout Alberta

Information and services available:
- 5,000 user-created pages
- includes general information, book reviews and correspondence courseware

Method of delivery:
- direct dial telephone (212 modems)

Equipment:
- PDP-11/70 computer
- GENESYSTEM™ software
- 30 Norpak MK-II decoders

Other:
- presently 699 presentation protocol

Saskatchewan

Pathfinder/Agritex — Saskatchewan Telecommunications

Having observed the development of Telidon since 1978, Saskatchewan Telecommunications (Sask Tel) began operation of its own trial service, Pathfinder, to identify the feasibility of commercial Telidon services and the impact of these new services on existing communications networks.

Sask Tel is the sole sponsor of its' $2.3 million Telidon service which is partially distributed in Saskatchewan via a 3,200 km fibre optic highway. The service offers home, disabled, agribusiness and government users more than 8,000 pages of up-to-date news, weather, games and even bus routes which show the bus's location every 5 seconds. An electronic gateway allows access to other Telidon data bases such as CanTel and Grassroots.

The service is provided from the data base in Regina to 25 local homes for 18 months and to 30 closed-user groups throughout the province for periods ranging from 6 to 12 months. Initially the trial will serve local areas via telephone lines and distant areas via fibre optic trunks (45 Mb/s). Eventually, complementary videotex/teletext systems will provide interactive, general interest, and up-to-date information services.

Sask Tel is a provincially regulated Crown corporation which administers the telecommunications and cable TV distribution networks within Saskatchewan. Its mandate is to extend and improve the quality of service to the one million residents of the province. The Pathfinder project is designed to achieve this goal.

Sask Tel provides the interface between the information provider and the information consumer. As a videotex utility, Sask Tel offers free access to information and privacy for the individual along with free page creation and storage for information providers. The data base also hosts a separate Telidon trial undertaken by the Federation of Saskatchewan Indians. Over 100 organizations supply information for the general Saskatchewan data base.

Sask Tel considers Pathfinder a user's system. Crucial elements in the acceptance of a new service such as Telidon are familiarity and applications. Pathfinder is easy to use. The decoders automatically dial the data base, where keyword access allows users to retrieve information classified according to time and location. Synthesized sound effects in 75 terminals respond to user entries and provide secondary feedback from the data base. Through Pathfinder, Sask Tel hopes to marry timely

access to general interest and agricultural ("Agritex"*) information with the most powerful communications medium ever, the TV set. Pathfinder presently serves 50 farmers in the Regina and Yorkton areas, and is expected to provide a commercial province-wide Telidon Agritex network service starting in the summer of 1983.

* TM Saskatchewan Telecommunications

PATHFINDER

Market Trial

Start date: June 1982

Duration: 18 months

Sponsors: Saskatchewan Telecommunications,
Graham Bradley (306) 347-3903

Market:
- out of 125 terminals, 25 homes in a Regina suburb are served for the life of the trial, while the remaining terminals are cycled through agribusiness, government, business closed-user groups, handicapped centres and libraries

Information and services available:
- 8,000 page keyword accessed data base
- on-line updated information including news, weather and a bus route map showing the bus's location, updated every 5 seconds
- teleshopping through Grassroots
- gateway service to various videotex data bases
- inter-user messaging (Envoy 100)
- synthesized sound effects in response to user keyboard entries
- data base supports Federation of Saskatchewan Indians information service

Method of delivery:
- direct dial telephone (1200/150 baud auto-dial modems)
- fibre optic trunking to Yorkton, Saskatchewan (45 Mb/s)

Equipment:
- PDP-11/70 computer
- DOC data base management software (B.C. Tel modified)
- 100 Northern Telecom (auto dialer/RF out) decoders
- 25 alphanumeric terminals
- 6 Northern Telecom page creation terminals (VIPS)

Other:
- Pathfinder decoders are retrofitted to accept 699 and NAPLPS pages. The data base is presently a combination of 699 and NAPLPS pages.

Manitoba

Grassroots™ — Infomart

Infomart's Grassroots was the first commercial Telidon service in Canada. In operation since May 1981, Grassroots offers an agribusiness service for 30 agricultural communities in southwestern Manitoba. Through Grassroots, farmers have access to business planning tools and current information from a wide range of sources. Not only is Grassroots a powerful communications medium aiding farmers to make important purchasing, operating, financial and marketing decisions, but it also offers educational, community and entertainment information.

The Manitoba Telephone System (MTS) provides the telecommunications network for the system and offers a purchase, leasing and maintenance service for terminals. To promote Grassroots, MTS placed 25 terminals in the offices of local agriculture representatives, community centres and grain elevators. Commercial rate structures started in September 1981 as follows:

Telephone line charge - 5¢ per minute, province-wide

Installation charge - $75.00

Terminal purchase - $700.00

Terminal leasing -

Terms	Monthly cost ($)
monthly	74.85
1 year	59.10
2 year with purchase option	47.50 or 200.00 down and 30.00/mo.

Grassroots has more than 1,000 subscribers, 800 of whom lease or own terminals. The service offers 30,000 regularly updated pages. For a monthly charge of $2 per page, government departments, regulatory agencies, suppliers and industry consultants contribute information to the service. For business users, Grassroots provides keyword access to information on:

- banking
- chemicals
- equipment
- feed
- fertilizers
- financial services
- grain
- insurance
- livestock
- real estate
- seed
- local livestock quotations
- Mercantile Exchange
- Mid-America Exchange
- Winnipeg Commodity Exchange
- Chicago Board of Trade
- Toronto Stock Exchange

Stock and commodity market information is available within 15 minutes of a transaction and can include high, low, close, and on-line updated daily and monthly charts. Weather reports, updated three times daily, provide current, short and long-term forecasts of temperatures, precipitation and wind characteristics for local, national and international crop areas including Russia. Weather warnings go into the data bank almost instantly. Information providers receive regular statistics on how often their pages are accessed, when and by what type of subscriber. They know Grassroots is effective.

At home, subscribers can use the service to leave messages for friends, or shop from Canada's largest retail chain, the Bay. Children can read bedtime stories, play games and find out about educational opportunities and local events. Parents can obtain reviews of local restaurants, find out about coming sports events, theatre, art and entertainment. The service offers 24 computational programs for financial planning and, in the near future, will provide telebanking services.

The agribusinessman can realize increased profits while writing off terminal and communications costs as tax-deductible business expenses. Grassroots helps the agribusinessman assess his requirements and evaluate his return against current market and regulatory conditions.

The Grassroots concept could be used by farmers throughout North America. Infomart now serves farmers in Alberta, Saskatchewan, Manitoba and Ontario and will convert the data base to the NAPLPS protocol in the summer of 1983.

Commercial Service

Start date: May 1981

Duration: Continuing

Sponsors: Infomart,
Leigh Sigurdson (204) 772-9453
Manitoba Telephone System,
Don Forsyth (204) 949-8764

Market:
- 30 agricultural communities in southwest Manitoba
- public users in 25 locations
- 800 agribusiness subscribers

Information and services available:
- 30,000 keyword accessed pages, 1/3 of which are updated either daily or weekly and include on-line updates of weather, commodities, stock market statistics, livestock, news, sports, finance and business information
- 24 computational and financial planning programs
- inter-user messaging
- teleshopping using credit cards
  Near future: telebanking

Method of delivery:
- direct dial telephone (1200/150 baud and 212 modems)
- fibre optics (Elie)

Equipment:
- VAX-11/780 computer
- Infomart ITSS-2 software
- integrated Electrohome/terminals (alphanumeric keypads)

Other:
- NAPLPS conversion, completed summer 1983
- service charges
  installation charge $75.00
  terminal leasing ($/month)
  74.85 - monthly
  59.10 - 1 year
  47.50 - 2 years with purchase option
  30.00 - (+ $200.00 down) 2 yr. lease to purchase
  700.00 - terminal purchase
  province-wide telephone access - 5 ¢ per minute
  page retrieval - no charge
  page storage - $2/page/month

Project Elie — Manitoba Telephone System

Using fibre optics technology, Project Elie has provided Telidon and related services to users in the rural communities of Elie and St. Eustache, Manitoba. The project was a joint venture between DOC, the Canadian Telecommunications Carriers Association (CTCA), Northern Telecom Canada Ltd. (NTC), the Manitoba Telephone System (MTS) and Infomart. The $10 million trial stimulated the development of a fibre optics network to improve communications in rural areas and thereby raise the standard of living.

The fibre optic plant was designed and built during the first phase of the project. It was completed in October 1981. Phase one was funded by DOC, CTCA and NTC and was completed on time and within its $6.8 million budget. During phase two, a Telidon data base and other services were developed for use by trial participants.

The Elie system, with its longest fibre trunk being 14 km, provided private-line telephony, cable TV, FM stereo radio services and a data channel to 145 rural households, a municipal office and 3 schools. Participants payed only for regular telephone service and for the TV and FM programming provided by the licensed cable TV operator. The data channel, provided free, used 56 kb/s full duplex synchronous trunks with 4.8 kb/s feeders to individual households. The subscriber distribution plant has operated successfully throughout the trial.

Phase two, a joint $3.2 million project between DOC, Infomart and MTS, developed a viable Telidon service for Manitoba residents. A multi-service data base was developed by Infomart and a computer assisted learning system based on accredited courseware developed by the Ontario Institute for Studies in Education (OISE), was offered by Cybershare.

The Infomart data base included information on farm equipment and livestock*, fertilizers, commodities* and financial markets*, regulatory agency programs, news, weather* and sports*, finance and business*, community news, entertainment and recreation, travel, careers, consumer services and education.

* on-line updated information

Special features developed for project Elie include keyword access to information, messaging, electronic shopping, farm management programs and video games. Information on news and sports, community events, education, entertainment and weather was provided in French for the 30 percent of participants who were French-speaking. The Infomart data base, originally developed for the IDA trial, was expanded to include 30,000 pages. More than 15,000 pages were accessed daily. Infomart also provided a gateway to other Telidon data bases across Canada. Infomart's data base and the Elie user terminals were converted to the NAPLPS protocol early in 1983.

Cybershare, another local data base operator is now considering the use of Telidon-delivered courseware for home studying. Computer assisted learning programs accredited by OISE are available for mathematics, finance, chemistry and electricity as well as consumer budgeting and health and home safety programs. Access between local hosts is controlled by MTS.

The success of IDA and Elie led to the extension of Telidon services throughout Manitoba. Two new companies, Genesys Research Corporation and Videographex, offer Telidon page creation services. MTS used Telidon to build a Provincial System Control Centre (P.S.C.C.) to monitor and display the status of its' province-wide network. Manitoba is also the home of Grassroots, the first commercial Telidon service. The Grassroots agricultural service was developed using the Elie data base (see project Grassroots), and is accessible from anywhere in North America.

The Manitoba Telephone System will maintain the Elie system as a test bed for new services, beyond March 1983.

Service and Fibre Optic Technology Trial

Start date: October 1981

Duration: 18 months

Sponsors: Canadian Telecommunications Carriers Association,
Ken Harris (613) 238-3080
Manitoba Telephone System,
George Tough (204) 947-7387
Infomart,
Leigh Sigurdson (204) 772-9453
Northern Telecom,
Ron Kristjanson (306) 384-5100
Cybershare,
Arthur Ballegeer (204) 775-0181
Department of Communications,
(613) 995-5081

Market:
- the agricultural communities of Elie and St. Eustache, 50 km west of Winnipeg, Manitoba. The trial involves 145 households, 3 schools and a municipal office

Information and services available:

Infomart
- 30,000 page keyword accessed data base, (1/3 of which is updated daily or weekly)
- on-line updates of weather, commodity, stock market and livestock reports, news and sports, finance and business.
- 24 computational and financial planning programs
- inter-user messaging
- teleshopping using credit cards
  Near future: telebanking, ticket and travel reservations

Cybershare
- accredited educational courseware
- agri-business interactive programs

Method of delivery:
- fibre optics (56 kb/s trunk, 4.8 kb/s feeder, full-duplex synchronous)

Equipment:
- Infomart - VAX-11/780 computer
  Infomart ITSS-2 software
- Cybershare - Honeywell, Level 6
  CDC Cyber 174
- 150 Norpak MK-III decoders (keyboards)

Other:
- users had free access to data services
- NAPLPS conversion completed mid-1983

Project IDA — Manitoba Telephone System

Project IDA, operated by the Manitoba Telephone System (MTS), was one of the first Telidon field trials. Approximately 100 homes in Headingley, a suburb of Winnipeg, Manitoba, received Telidon and related services including digital telephony, educational TV, pay-TV, utility meter reading, energy management through load-shedding and alarm monitoring for fire, burglary and medic alert. The services were offered over a switchable broadband coaxial cable system, designed and installed by Interdiscom. This distributed intelligence network provided digital (eight 1.5 Mb/s channels) and analog information.

A provincially owned Crown corporation, MTS is the fourth largest telephone company in Canada. In 1980, MTS allocated almost $2 million for the 19-month trial to test Telidon equipment in a simulation of the "home of the future". MTS operated the prototype broadband distribution network and Infomart managed the development of the data base. DOC loaned over $300,000 of equipment consisting of 6 page creation terminals and 33 user terminals. While Telidon was seen as having tremendous potential, before this trial it had only been used to demonstrate the technology.

The tree-indexed data base, operated by Infomart, was comprised of information from 20 information providers. The service offered approximately 3,000 pages on cultural, educational, entertainment and community services information.

Market research was carried out by Infomart. Some of the questions they addressed were:

- How should an organization be structured to provide such a service?
- How should large-scale production and maintenance of pages be handled?
- What kind of software is needed?
- How should the service be promoted to information providers?
- How should the market place be assessed?
- What do users look for in such a service?
- Can a viable business be built around this service?

Extensive planning went into IDA before it began as well as during the trial itself. Having determined the right questions to ask, Headingley field trial participants provided the important answers.

IDA was evaluated by users with respect to ease of operation of equipment, response time of the system and relevance of information. Users indicated they wanted information which was easy to find and easy to understand. The tree structure of the data base was considered a slow and tedious method of accessing information.

IDA was the test bed which stimulated the development of a commercial Telidon industry. It demonstrated that the Interdiscom distribution system and the Telidon technology performed well; user feedback led to the refinement of Telidon user terminals; and information providers gained experience in distribution requirements and content preferences.

IDA led to the development of new data base structures, on-line updates of news and weather and the introduction of interactive computational programs and transactional services. Through IDA, two new Telidon services were introduced into Manitoba: Elie, a rural Telidon service offered via fibre optics, and Grassroots, the first commercial Telidon service, designed for the agricultural business community in Manitoba. Two new page creation companies, Videographex and Genesis Research Corp. also began operation in Manitoba.

Technology Trial

Start date: June 1980

Duration: 19 months

Sponsors: Manitoba Telephone System,
Dennis McCaffrey (204) 947-8418
Infomart,
Bruno Leps (204) 772-9453
Department of Communications,
(613) 995-5081

Market:
- 33 volunteer households in Headingley, a suburb of Winnipeg, Manitoba

Information and services available:

3,000 general information pages on
- community services
- community bulletin boards
- cultural groups
- education
- games

Method of delivery:
- packet switched coaxial cable
- 8 1.5 Mb/s digital channels switched to specific homes by intelligent line amplifiers

Equipment:
- 699 presentation protocol
- Interdiscom coaxial cable network
- PDP-11/70
- DOC data base management software
- 33 Norpak MK-I decoders
- 6 Norpak page creation terminals

Ontario

Infocable — Cable Telecommunications Research Institute

The Brockville, Ontario cable system was selected by the Cable Telecommunications Research Institute (CTRI) of Canada for an open channel/full channel teletext market trial for local users. The Brockville cable system was chosen to offer the Infocable service because it is representative of almost 30 percent of cable systems in Canada.

Located 150 km south of Ottawa, Brockville is a light industry community with a high concentration of English-speaking residents. Brockville Cable, the cable licensee, has 7,500 subscribers which represents about an 80 percent penetration of households. The goal of the trial is to work with the local media and community to develop new community services. In co-operation with DOC and Canadian manufacturers, the Brockville cable company hopes to offer a user responsive teletext service and promote a data communications standard for full-field high speed transmission of Telidon services using the NAPLPS/NABTS standard.

The Infocable service offers news, civic and community information, and classified advertising, distributed as broadcast signals on up to two dedicated channels of the cable system. Information is provided by the local media including the "Brockville Recorder and Times" local newspaper (who have purchased a Cableshare Picture Painter), the municipality, community groups and organizations. At scheduled times during the hour, different packages of information are cycled through a Telidon decoder at the cable system's head end , which feeds the RF modulators of the cable distribution channels.

During phase two, the service will act as a test bed for rate structured data services. Based on user surveys, the most popular teletext information will be offered as a commercial service by local businesses and the community. The service will be available using home computers, alphanumeric terminals and printers, and Telidon decoders which will be able to access full-field alphageometric data on dedicated TV channels. Once proven successful, these services will be introduced into other cable communities across Canada.

Market Trial

Start date: September 1982

Duration: 18 months

Sponsors: Cable Telecommunications Research Institute/Brockville Cable, Rick Simpson (613) 345-1213
Department of Communications, (613) 995-5081

Market: 7,500 cable subscribers within Brockville, Ontario

Information and services available:
Open-channel - hourly cycles up to 80 pages of:
- news, weather, sports
- community bulletin board
- consumer information
- entertainment guide

Method of delivery:
- decoded pages are RF modulated on to channel 12.

Equipment:
- 1 Northern Telecom decoder
- 1 Norpak IPS-II page creation terminals
- 1 Cableshare Picture Painter
- 2 Apple II plus home computers (scheduler/data base)

Other:
- conversion to NAPLPS planned for summer 1983
- phase two will introduce teletext downloading of information, games and programs

InfoNorth — InfoNorth Computing Inc.

InfoNorth is a Telidon service which uses a combination of videotex, teletext, and/or open-channel distribution systems to provide nearly 200,000 people in 11 Northern Ontario communities with a wide variety of consumer information.

The service is provided through a co-operative effort between InfoNorth Computing Inc., Laurentian University and Northern Cable Services Ltd.

Efficient and effective use of a variety of communication systems allows the InfoNorth service to reach as many people as possible. Using Northern Cable's network of microwave links, the data base, located in Sudbury, supplies open-channel, teletext, and videotex services to Sudbury and 10 surrounding communities. Through the use of Telidon decoders, equipped with a broadcast quality TV output, cyclical packages of Telidon pages are received at the cable head ends in Sudbury and the 10 other communities, then redistributed on local cable TV channels. Through this "open-channel" method all of Northern Cable's subscribers will be able to receive Telidon service without requiring a Telidon decoder; the pages of information are available free of charge with a normal TV channel converter. This open-channel service provides general magazines on such topics as food, weather, road information, jobs, university programs, and tourism; as well as timely features on health, energy, finances, and shopping and home repair guides.

Full channel teletext will allow the basic packages of information magazines to be expanded to provide a more responsive and extensive service than that on open-channel. A Norpak NABTS teletext encoder, located at Laurentian University will insert packages of up to 9,000 Telidon pages into a channel on the Sudbury cable system. Some 22,000 cable subscribers in Sudbury will be able to buy or rent a dual-mode teletext/videotex decoder, and thus gain access to this more detailed and timely information service. Although initially available only in Sudbury, the extension of the teletext service to the other communities will likely follow when satellite pay-TV receiving equipment is installed.

The InfoNorth data base, from which the open-channel and teletext information packages are formed, will also support a fully interactive videotex service. Initially, 33 residents in Sudbury will be able to dial into the main data base and gain access to not only the general interest

information but also to advanced instructional modules covering such topics as computer literacy courses, personalized exercise programs and home repairs. This comprehensive data base will include information in English, French and native languages.

InfoNorth community information systems has received a $140,000 job creation grant through joint federal/provincial funding (COEPD). InfoNorth has 10 summer students creating Telidon pages. The additional funding will allow 10 more people to be employed for 35 weeks to create 2 computerized information data bases and test their use in appropriate settings. One package will be a safety/preventive health package for use in industrial and educational settings. The second package will be a local economy data base (shoppers guide, home repair, etc.) which could be used in commercial and/or residential settings. Development of specific content will depend on a preliminary survey of potential users (for example stores, safety offices, health professionals). Ongoing consultation from potential users will be continually sought during the development of the information packages. Tests of the packages will also be run regularly during the production phase, in order to revise the packages and obtain the most comprehensive information about the usefulness of the packages as well as the best direction to take for further development in these areas. One of the three page creation stations presently in use was provided through the Cable Telecommunications Research Institute. Content development will be supported through sponsorship, and possibly by user fees, tiered service rate structures, and/or advertising.

The operator of the main data base and principal source of content will be InfoNorth Computing Inc., who along with the other sponsors will invest over half a million dollars into the InfoNorth service.

Design, specialized product development, and installation of the InfoNorth service was contracted to the Genesys Group.

INFONORTH

Commercial/Educational Service

Start date: September 1983

Duration: Permanent

Sponsors: InfoNorth Computing Inc.,
Rick Danielson (705) 522-8219
Laurentian University,
Dr. Frank Turner (705) 675-1151
Northern Cable Services Ltd.,
Norm Bradley (705) 560-1560
COEPD program,
Department of Communications,
(613) 995-5081

Market:
- consumer, educational, medical, industrial health safety

Information and services available:
- 20,000-page general interest data base (English, French and native languages)
- news
- job information
- weather and road information
- tourism
- consumer affairs
- instructional modules
- continuing education material
  Future: courseware down-loading to Telidon compatible micros.

Method of delivery:
- videotex
  direct dial telephone (212 modems and Datapac)
- full channel teletext data
  5.73 Mb/s on lines 10 to 262 of a cable TV channel
- open-channel
  distributed on a converted channel on 11 different cable systems

Equipment:

- 1 PDP-11/23 host computer
- 1 GENESYSTEM™ 18 Multi-station IPS
- 2 Genesys IPS work stations
- 19 Norpak Professional MK-IV decoders
- 33 Norpak MK-IV decoders (dual-mode videotex/teletext)
- 1 Norpak TES-2 encoder
- GENESYSTEM™ videotex/teletext software

Other:

- NAPLPS protocol
- NABTS teletext specification

Teleguide™ to Ontario — Infomart

Designed specifically for visitors to, and residents of, Ontario, Teleguide offers a complete guide to Ontario of where to stay, eat, play, shop and much more. Public access terminals have been placed in Toronto shopping malls, hotel lobbies, sites of tourist attractions, transportation centres and information bureaus. The system is to be expanded to over 800 terminals.

By simply pushing a "start" button, users gain free access to thousands of pages of useful information. First, a complete guide of services provided at the particular terminal host location will appear on the screen. In a hotel lobby, for example, that guide will be the directory of services provided by the hotel, such as shopping, room services, restaurants and bars, entertainment. Floor plans are given to pinpoint locations. If the information sought is not available from that particular terminal location directory, the user can press a button to access the general data base. Listings for Metro Toronto include:

- attractions, events and tours
- theatre, arts and entertainment
- where to eat
- accommodation
- retail shops and services
- sports and recreation
- transportation and travel
- news and weather
- banks, financial and business services
- emergency and traveller's assistance
- community and government information

Through a series of menu selections, users can access a specific page of information, or browse through the data base pausing at pages of particular interest.

Many organizations participated in developing the service. Infomart created the pages for Teleguide and the Government of Ontario and DOC provided financial assistance to purchase and maintain the terminals and an elaborate communications network. Bell Canada offers network assistance and Core Media Inc. has been appointed to help promote the service to the hundreds of interested information providers across Ontario.

Teleguide offers easy to find, useful information. For service providers, it represents a new way to reach a large and mobile audience, effectively and efficiently. In short, Teleguide is the most viable way to help pave the way towards future home videotex services.

Teleguide™

Commercial Service

Start date: September 1982

Duration: Continuing

Sponsors: Infomart,
Barry L. Thomas (416) 489-6640
Ontario Government Board of Industrial Leadership and Development (BILD) Program,
Department of Communications,
(613) 995-5081

Market:
- terminals operating in hotels, shopping malls, tourist attractions, transportation centres and information bureaus
- the operators report over one million page accesses weekly

Information and services available:
- data base offers more than 15,000 pages on Metro Toronto, attractions, events, tours, theatre, arts, entertainment, food, accommodation, retail shopping, services, sports, recreation, transportation, travel, news, weather, banks, financial and business services, emergency and traveller's assistance, community and government information.

Method of delivery:
- telephone line (dedicated circuits)

Equipment:
- VAX-11/780 computer
- Infomart ITSS-2 software
- Norpak, Microtel and Electrohome decoders

Other:
- NAPLPS protocol

Transportation Information System — OC Transpo

Electronically updated schedule and route information is made publicly available to the ridership of the Ottawa-Carleton transit system through the adaptation of Telidon to an existing schedule data base.

The system supports Telidon terminals throughout the transit network. Clusters of terminals are placed in shopping centres; transit interchanges such as airports, train stations, and intercity bus stations; and along express bus routes. The public screens are updated every minute and show the route numbers and departure times of all buses travelling through these areas during the upcoming hour.

A subsequent phase, which is currently under development, will allow the ridership to retrieve route maps and information showing optimum connections and routes. The user will be presented a map of the transit area and will enter source and destination information. The system will then respond with a route map and other details describing the best way to reach the desired destination.

The system is capable of operating in two configurations. The present OC Transpo service is provided through GENESYSTEM™ software which runs on a VAX-11/780 and interfaces to an existing schedule data base system developed by Teleride-Sage of Toronto. This enhanced transportation service will also run on any of the GENESYSTEM™ family of turnkey systems, thus providing the enhanced versatility of a publicly accessible videotex data base.

Commercial Service

Start date: November 1982

Duration: Permanent

Sponsors: OC Transpo,
Carol McMurdo (613) 741-6440
Genesys Group Inc.,
Val Smith (613) 226-8740
Department of Communications,
(613) 995-4376

Market:
- riders of the municipal bus system in the Ottawa region
- the service could be readily sold to other cities which have a computerized bus information system

Information and services available:
- schedules, rates and bus routes for the Ottawa transit system
- messages and notices to ridership

Method of delivery:
- dedicated telephone lines

Equipment:
- VAX-11/780, GENESYSTEM™ software
- large screen terminals in the major centres for bus traffic in Ottawa connected by dedicated telephone lines to the OC Transpo computer
- Infohut public access terminals

Other:
- NAPLPS protocol

TVOntario Telidon Network

In 1979, TVOntario began a three-year Telidon field trial in co-operation with DOC, Ontario educational institutions and community groups. Over 5,000 videotex pages and a 100-page daily teletext service were created for users in 55 locations across Ontario. The success of these trials has led TVOntario to promote provincially, nationally and internationally the use of Telidon in education.

A field trial evaluation indicated that Telidon can be a valuable educational tool and led TVOntario to offer a limited Telidon service. With financial assistance from DOC and the Ontario government's Board of Industrial Leadership and Development (BILD) program, TVOntario established the Ontario Telidon Network. This two-year project will expand the educational applications Telidon now offers and develop what will become an established service.

The Ontario Telidon Network will provide up-to-date, accurate information, in English and French, on careers and training opportunities for Ontario's youth and adults. Telidon pages are being created using information from the Ontario Ministry of Education's Student Guidance Information Service and other sources. Over one hundred Telidon terminals will be installed in schools, youth employment centres and libraries throughout the province.

The project will also offer a teletext service. EDUTEL, a broadcast magazine, will provide information on the arts, community events, health care and education, news, weather and financial services.

Telidon's interactive ability allows learners to proceed at their own pace using sequenced pages which can be called up at a rate controlled by the student. Telidon can also deliver tests and exams, making computer-assisted learning over distance a reality. Telidon's ability to produce finely detailed graphics allows for the reproduction of a wide range of educational illustrations such as charts, graphs and maps. An additional feature of the project is the use of a multi-mode user terminal with reserve memory permitting the down-loading of pages from either the broadcast teletext service or the videotex data base.

As more users become familiar with Telidon, new services will be added. In the future, full channel broadcasts and satellite-delivered data communications promise access from every part of Ontario at a reasonable cost. Gateways to exchange information with other educational and commercial data bases are also anticipated.

Educational Service

Start date: March 1979

Duration: Continuing

Sponsors: TV Ontario,
John Syrett (416) 484-2655
Government of Ontario,
Department of Communications,
(613) 995-5081

Market:
- over 100 terminals installed in schools, youth employment centres and libraries throughout Ontario

Information and services available:
- EDUTEX videotex
  initially a 30,000 page data base of information on careers and training opportunities
- EDUTEL teletext
  100-150 pages of news, education features, weather maps, financial reports, art reviews, health education, community information etc.

Method of delivery:
- videotex
  direct dial telephone and Datapac
- teletext data
  5.73 Mb/s on lines 15, 16, 18 and 20 of vertical blanking interval (VBI) of the TVO channels

Equipment:
- VAX-11/780 host computer
- Infomart ITSS-2 software
- Norpak MK-IV decoders (dual-mode videotex/teletext)
- Norpak TES-2 encoder

Other:
- NAPLPS protocol
- NABTS teletext specification

VISTA — Bell Canada

The Vista trial is the largest Telidon trial in Canada. A joint effort between Bell Canada, DOC and various information providers, the trial is intended to assess Telidon's operational capabilities, the implications of Telidon on networking and provide an assessment of customer interest. While Bell retains overall responsibility for the project, Infomart has provided management services since April 1, 1982.

A total of 491 user terminals, manufactured by Northern Telecom Canada Ltd., were placed in homes and public locations, and used for demonstrations, in Toronto, Montreal and Quebec City.

Auto-dialers, built into the terminals, allow direct access to Vista via regular telephone lines. Pages are created using 25 Norpak page creation terminals. The computer facilities, located in Toronto, include a PDP-11/70 and a VAX-11/780 with 64 ports (expandable to 96 ports). This equipment has been loaned to Bell by DOC for the duration of the trial.

The service offers more than 65,000 pages of information on government and local services, banking, tourism, business and financial services. Some of the trial's special features include teleshopping, interactive games and access via iNet from other Telidon terminals. There are approximately 40,000 English pages and 13,000 French pages, as well as access to Teleguide's 15,000 pages. Information is provided by over 130 organizations, including the Royal Bank, Simpsons, the Toronto Star, Holiday Inn and Dominion Directories. Access to information is by tree-structure search.

Infomart is responsible for data base management, customer relations, content and system expansion services. DOC provides user terminals, page creation terminals, the computer facility and support for statistics research and analysis. Statistical data is collected weekly and distributed once a month to information providers. Results from in-trial research are available to Vista participants.

Trial organizers are focusing on developing new software and content to make the system more appealing to both the user and the information provider. Infomart's recent development of action tasks has already made Vista significantly more attractive to users.

VISTA

Field Trial

Start date: May 1981

Duration: 28 months

Sponsors: Bell Canada,
Larry Wilson (613) 567-5881
Department of Communications,
(613) 995-5081

Market:
- residential/consumer users and general public

Information and services available:
- over 65,000 pages of English and French information
- more than 130 information providers

Method of delivery:
- direct dial telephone (1200/150 baud auto dial modems)

Equipment:
- 10 Norpak IPS-I and 15 IPS-II page creation terminals
- 491 Northern Telecom user terminals
- PDP-11/70 and VAX-11/780 host computers

Other:
- NAPLPS conversion in progress

Québec

AGORA — Université du Québec à Montréal

The Agora service is an electronic information journal which is being developed by the Université du Québec à Montréal. This community information service will be distributed, via the VIDACOM system, on the Câblevision Nationale cable system in Montreal. Access will be available to 188 homes, 20 community centres as well as university research settings, and a videotex training centre. The journal addresses itself to the handicapped and also to informatics specialists who will be participating in the development of the project. Gateway facilities to other videotex services will enlarge the actual services available to the users.

The content of the journal service will be controlled by a Content Committee comprised of all the information providers.

It is expected that by January 1, 1984, 20,000 pages of information will be on the system with 2,500 pages in English and the remaining 17,000 in French. During its development the service has 25 information providers developing information. This service will involve approximately $500,000 of Telidon equipment.

Educational Service

Start date: March 1982

Duration: Permanent

Sponsors: Université du Québec à Montréal,
Prof. M. Cartier (514) 282-4480
(514) 282-4531
Department of Communications,
(613) 995-4376

Market:
- graduate and undergraduate level university students in communications technologies
- handicapped persons
- informatics specialists
- university researchers

Information and services available:
- local, community information
- gateways to other videotex data bases
- videotex training including page creation, networking, stand-alone systems, data base management, major project management

Method of delivery:
- coaxial cable
- direct dial telephone (1200/150 baud modems)

Equipment:
- PDP-11/70 computer
- PDP-11/34 for updating information
- 188 Norpak MK-IV decoders integrated into Vidacom terminals
- 2 Norpak IPS-II page creation terminals
- Apple III Plus with Telidon page creation software
- 4 Norpak GC-1000 page creation terminals
- 20 Norpak integrated terminals
- 1 EPS-1 presentation decoder

Other:
- NAPLPS protocol
- Vidacom distribution system on cable

Palais des Congrès de Montréal

Le Palais des Congrès de Montréal, inaugurated in May 1983, is one of the largest convention centres in North America to install an advanced telematic system. The system comprised of Telidon videotex, NAPLPS protocol, and a sophisticated office communication system will meet all the information and communication needs encountered in a convention centre environment. It will be installed in two phases.

Phase one of the project involves the installation of telephone lines and an interactive Telidon system. Over 60 Norpak MK-IV decoder terminals are to be located on the exposition floors, and in lobbies and conference rooms. They will provide users with general directions, complete guides of places to eat, stay, shop and tour, as well as supplying information on specific conferences and audio visual support for speakers' presentations.

A VAX-11/750 is used as the data base computer and a Develcon data switch is used to control the access by the terminals to the data base. The system operates at the transmission rate of 9600 baud, resulting in a much faster rate of display than with the common 1200 baud rate. The software for the system was developed by Infomart, based on its ITSS-2 version.

It is worth noting that the system also provides a high-resolution Telidon decoder, Norpak Supervision, along with a high-definition TV projector to achieve high-quality presentations.

This phase of the project was jointly sponsored by the federal government and the Quebec provincial government. The federal government provided the Telidon decoders, data base computer and data switch. Total cost of phase one is $1.5 million.

Phase two is currently at the planning stage. It will involve the expansion of the Telidon services to other parts of the city and possibly to other cities within the province. More importantly, it will see the integration of Telidon with an office communications system based on a fibre-optic local area network. The estimated cost of this phase will be an additional $5.0 million.

Palais des Congrès de **Montréal**

Commercial Service

Start date: June 1983

Duration: Permanent

Sponsors: Palais des Congrès de Montréal
Roger Privé (514) 873-5122
Department of Communications
(613) 995-5081

Market:
- convention centres, tourism in general

Information and services available:
- information related to the registration and co-ordination of specific conferences
- audio/visual support for presentations
- hospitality guides and directions
- general tourist information

Method of delivery:
- telephone lines (9600 bauds)
- fibre optics

Equipment:
- VAX-11/750 computer
- Infomart ITSS-2 Software
- 60 Norpak MK-IV decoders
- 1 Norpak IPS-III page creation terminal
- 1 Norpak GC-1000
- Develcon data switch

Other:
- NAPLPS protocol

Télé-Santé

This Montreal based service, provided by the Clinical Research Institute of Montreal, the Montreal General Hospital and the Rivière des Prairies Hospital, seeks to bring health care information to the general public in such a fashion as to assist individuals in making better health care decisions. When a user interacts with one of the user terminals, the terminal executes some of the preliminary diagnostic work that is normally carried out by a physician. It involves a process of not only providing specific information on specific illnesses, but also involves training people how to take a broader view of what constitutes health and effective health management. The content will be bilingual (English and French).

The content will include items dealing with the following subjects:

1) depression
2) youth health problems
3) eating habits
4) alcohol abuse
5) smoking
6) choosing a health service and a doctor
7) infections/childhood dieases
8) vaccinations
9) insomnia
10) fatigue and stress
11) headaches
12) colds and fever
13) digestive problems
14) heart problems
15) risk factors

To date there are 10 user terminals located in clinics throughout Montreal, and one page creation terminal in operation. There are presently 350 pages in the system (50 in English and 300 in French). By December 31, 1984 it is expected that 12 user terminals will be in operation, and that the total number of pages will have reached 2,900 (1,300 in English and 1,600 in French). The data base will be publicly accessible throughout Montreal.

The service involves approximately $65,000 in Telidon equipment.

Market Trial

Start date: June 1983

Duration: Permanent

Sponsors: Department de Santé Communautaire de l'Hôpital Général de Montréal,
Institut de recherches cliniques de Montréal,
Dr. Bourque and Mr. Perreault
(514) 842-1481 ext. 357
Hôpital Rivière-des-Prairies,
Department of Communications,
(613) 995-4376

Market:
- general public, health-care institutions and professionals, first line health professionals.

Information and services available:
- information on health management
- information on health care to facilitate effective health care decisions by individuals
- general and specific information on health care

Method of delivery:
- direct dial telephone (1200/150 baud modems)

Equipment:
- VAX-11/750 with 25 port capacity
- 12 MK-IV terminals (built-in modems keypads)
- 1 Norpak GC-1000 page creation terminal

Other:
- NAPLPS protocol

Télé-Université de l'Université du Québec à Québec

This is a long-distance education service covering the province of Quebec. It is designed so the students themselves can advance their own education whether at school, work or home. Students can progress at their own rate and thus participate, plan and manage their education through the creation and interactive use of courseware.

A major component of the system is Control Data's Plato software, a courseware development language. Telidon will be completely integrated into the Plato courseware, thus providing access to advanced courseware by all compatible equipment including Telidon compatible micro-computers and Télé-Université's terminals, either via the Vidacom service or via telephone.

It is expected that by March 13, 1984, 35 user terminals will be in operation at a number of remote compuses throughout Quebec; 7,500 pages of new courseware (in French) will be in the system, 10 people will be permanently employed, and 4 information provider organizations will be in operation.

Currently only a few user terminals are in use within Télé-Université headquarters in Quebec City, while the interfacing software is being written to make the existing Plato data base accessible to any Telidon decoder.

Approximately $98,000 in Telidon equipment is associated with the development of this service.

Educational Service

Start date: June 1983

Duration: Permanent

Sponsors: Télé-Université de l'Université du Québec à Québec,
Jean Beliveau (418) 657-2262
Department of Communications,
(613) 995-4376

Market:
- students and professors

Information and services available:
- various educational packages dealing with a variety of subjects, and capable of keeping track of individual student's input and performance
- electronic mail
- text editing
- graphic artistry

Method of delivery:
- direct dial telephone (1200/150 baud modems)

Equipment:
- Cyber 170-815 with 10 ports (expandable)
- 36 Norpak MK-IV terminals
- Control Data's Plato network of terminals on the compuses of l'Université du Québec

Other:
- NAPLPS protocol

Vidacom — Groupe Vidéotron

Vidacom, previously named Système d'Information à Domicile (SID), is a joint undertaking between DOC, Vidéotron, Rogers Cablesystems Inc. and the Cable Telecommunications Research Institute (CTRI), which is funded by a consortium of Canadian cable companies.

Designed to test a general purpose two-way data communications system, the Vidacom service uses existing cable systems. The project is intended to help establish industry standards and encourage development of a universal and modular customer network access interface.

The service will offer video programming, captioning for teletext and videotex services, electronic mail, polling, low/medium rate asynchronous data services, software downloading, remote device controls, pay-TV and alarm systems.

The Vidéotron system previously offered a low capacity Telidon open-channel as part of its basic service. Offered part-time on a message channel, the 1,000 page data base was accessed by phoning a special number. Specific pages were requested using a push-button telephone and the pages were decoded at the cable head end for distribution.

The present two year trial will be carried out in two phases, each involving 250 "subscriber interface" terminals. Phase one (Telidon II) now underway, will test the technical capabilities of the overall system, offering text narrowcasting, software downloading and other non-interactive services. Following phase one, a commercial service is planned for mid-1984.

Phase two, beginning in early 1984, will test interactive services including videotex, electronic mail, low/medium rate asynchronous data transmisisons, energy monitoring and transactional services using gateways. These services are scheduled to be available commercially by late 1984.

Technology Trial

Start date: Early 1983

Duration: Continuing

Sponsors:

Groupe Vidéotron,
Michel Dufresne (514) 270-6031
Cable Telecommunications Research Institute (CTRI),
Rogers Cable Systems Inc.,
Department of Communications,
(613) 995-5081

Market:
- 250 homes in Montreal

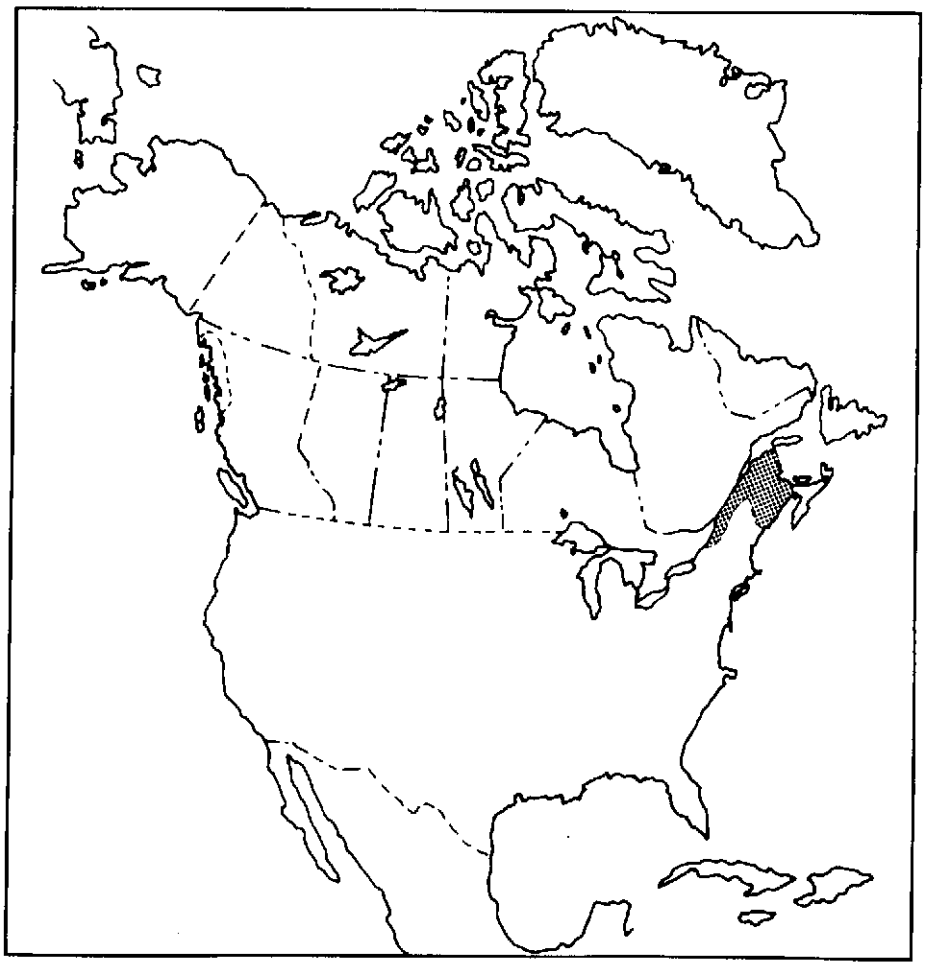
Information and services available:
- the overall system offers text narrowcasting, software downloading, captioning and other non-interactive services

Method of delivery:
- coaxial cable, cable-TV converter channel 14 (A)

Equipment:
- PDP-11/70 host computer
- PDP-11/34 access control computer
- Vidéotron Communications custom encoding hardware, custom software, subscriber interface unit (includes Norpak PDI decoder)

Other:
- NAPLPS protocol

New Brunswick



Project Mercury/Datavision — New Brunswick Telephone

New Brunswick Telephone's Project Mercury was designed to assess public reaction to Telidon and define possible markets for Telidon-delivered services.

Project Mercury was field tested by 50 participants. Twenty-five terminals were placed in Saint John, New Brunswick homes and five were rotated in public locations such as universities, community colleges and high schools.

Using a tree structure, the service offered 9,000 pages of information on tourism and entertainment, education, health and safety, real estate, business and consumer affairs, community projects and government services. The Advisory Council on Status of Women also used the service as a bulletin board, and public awareness tool. Approximately 30 information providers contributed to the data base which contained 30 percent index and 70 percent content pages. The service also provided gateway facilities to other data bases across Canada.

An evaluation of the trial is now being carried out.

Prior to the end of the Project Mercury trial in November 1982, New Brunswick Telephone undertook its' commercial service called Datavision. Datavision provides the Maritime area, with access to 12 different services, 4 of which are publicly available. These include data bases on Newfoundland Tourism, Nova Scotia heritage (Questel), Atlantic Fisheries (Fishnet), and New Brunswick Tourism (Datavision), and services such as Compuserve, Envoy 100 and iNet.

There are 3 types of data bases available; public, closed user group and time-shared processing; all supporting Telidon. While access is free of charge, information providers pay $1.25 per month per page for storage. The rate structure for hosting closed user group data bases is dependent on the number of pages stored, and access ports required. Apart from hosting data bases, Datavision also offers page creation services and access to a time-share service which can convert user inputted data into Telidon business charts.

Market Trial/Commercial Service

Start date: April 1981

Duration: 18 months

Sponsors: New Brunswick Telephone,
J. MacFarlane (506) 648-2112
Department of Communications,
(613) 995-5081

Market: Maritime provinces
- private homes
- general public
- educational institutions

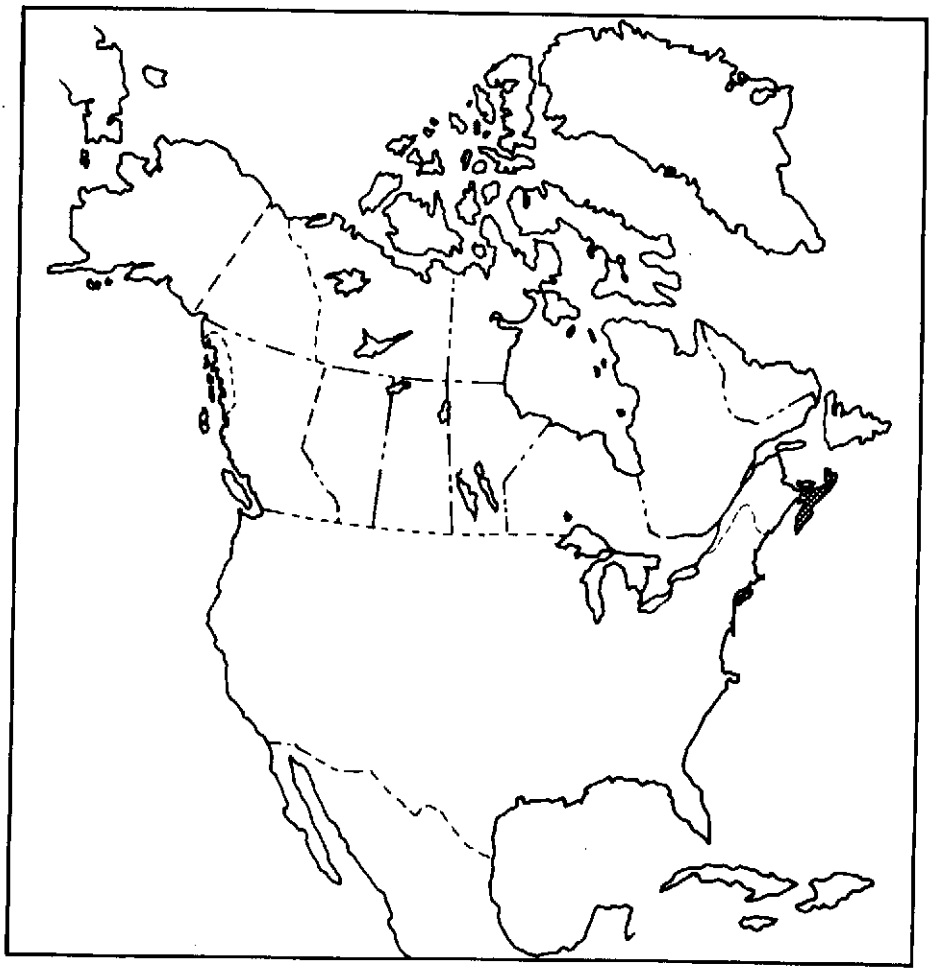
Information and services available:
- 9,000 pages of information
- diverse categories of information
- information on status of women
- games
- gateway facilities to other data bases

Method of delivery:
- direct dial telephone and Datapac (212 modems)

Equipment:
- 3 page creation terminals (2 Norpak IPS-II, and 1 Bell-Northern Research VIPS)
- PDP-11/34 host computer
- GENESYSTEM™ GVS V5.0 software

Other:
- 699 presentation protocol
- supports public, closed user group and time-shared services under different rate structures

Nova Scotia



Maritime Telephone and Telegraph Telidon Trial

The Maritime Telephone and Telegraph Company (MT&T) field trial offered information for public users on energy, transportation and tourism, library services, financial investment, Nova Scotia history, education, health care and national and regional statistics.

Information providers included three provincial departments and local libraries. Five terminals were placed in Dalhousie University Library, Halifax City Regional Library, local shopping centres, telephone stores and other public locations within Halifax, Nova Scotia.

The data base facility, in Saint John, New Brunswick, included a PDP-11/34 with 2 ports (expandable to 3 ports) and supported approximately 1,000 pages accessible via direct distance dialing. New Brunswick Telephone (N.B. Tel) supplied the computer and MT&T provided page creation and data collection services, terminals and telephone lines. MT&T owned the data base which used a tree structure format under the 699 standard.

In co-operation with N.B. Tel, MT&T evaluated user response to Telidon, assessed its market implications and is developing business strategies for Telidon services.

The company also hopes to develop for specific markets a complete systems facility, including training and special features such as interactivity.

Technology Trial

Start date: May 1982

Duration: 18 months

Sponsors: Maritime Telephone and Telegraph,
Dennis Connor (902) 421-5855
New Brunswick Tel

Market:
- general public, Halifax, Nova Scotia

Information and services available:
- 1,000 pages
- government information, investment, education, health care, emergency, statistics etc.

Method of delivery:
- direct dial telephone

Equipment:
- PDP-11/34 with 2 ports
- 5 user terminals including 3 AEL Microtel and 2 Norpak MK-III
- Norpak IPS-II page creation terminal

Other:
- 699 presentation protocol

Newfoundland

Project Cabot — Memorial University of Newfoundland

Project Cabot was designed to test the feasibility and effectiveness of using Telidon in combination with a tape/slide presentation to provide tourist information. Two terminals, one on board a ferry travelling between Port aux Basques and North Sydney and one alternately located in Port aux Basques and North Sydney ports, provided a presentation which used a 20-minute audio tape to trigger 125 Telidon pages in synchrony with 80 35 mm slides. The presentation consisted of 125 pages of information on the area's (southwestern Newfoundland) history and geography, local attractions and events.

Page creation and computer facilities were supplied by DOC and Terra Transport; CN Marine provided financial support. Information for the project was developed by the Newfoundland Department of Industrial Development's Tourism Division and the Port aux Basques Chamber of Commerce.

An evaluation of the project indicated that the synchronized triggering of slides and Telidon pages was technically feasible and that the presentation was considered to be both attractive and effective. Furthermore, actual traval data suggested that the presentation was instrumental in influencing a higher number of tourists to visit the target area.

Market Trial

Start date: June 1981

Duration: 10 weeks

Sponsors: Memorial University of Newfoundland,
Arthur M. Sullivan (709) 737-8000
Terra Transport,
CN Marine,
Department of Communications,
(613) 995-5081

Market:
- tourists

Information and services available:
- information on tourism

Method of delivery:
- Telidon information locally available on cassette tapes

Equipment:
- 2 Hemton electronic slide user terminals
- 1 page creation terminal

Other:
- 699 presentation protocol

Tourism and Telidon — Newfoundland Telephone Company

This tourism trial in Newfoundland, which is jointly sponsored by the Newfoundland Telephone Company, the Newfoundland Department of Tourism and the Department of Communications through its IISP program, went into service in the summer of 1981. The program was designed not only to entice tourists into the province but also to provide enough information that once in Newfoundland they might decide to stay longer and see more of the province.

During the tourist season terminals are placed in tourist chalets, which are part of the Newfoundland Department of Tourism service, as well as in various offices of Parks Canada, selected hotels, and ferry ports.

Tourist information such as calendars of events, restaurant and accommodation information, tourist alerts and province information are included in the data base.

The data base was originally stored and accessed from the New Brunswick Telephone Datavision service via telephone lines. It is now also available on the Cantel data base and through the iNet service. Until the end of the 1984 tourism year, the telephone company will pay for the cost of terminals and telecommunications.

There are more than 5,000 pages created for this data base. They are updated on a timely basis; some daily, some weekly and the whole data base is reformatted each tourism year.

The equipment in this trial has not yet been converted to the NAPLPS format, but will be when Datavision converts or when the Newfoundland Telephone Company purchases its own host.

Market Trial

Start date: May 1981

Duration: Continuing

Sponsors: Newfoundland Telephone Company,
Robert Newell (709) 739-2001
Newfoundland Department of Tourism,
Department of Communications,
(613) 995-4376

Market:
- travel agencies, foreign and Canadian tourists, visitors within the province

Information and services available:
- general information on Newfoundland, methods of travel to Newfoundland, activities, driving tours, entertainment and dining guides, history and geography of the province, and emergency notices from RCMP

Method of delivery:
- telephone lines (dedicated circuits) - data base is also on the Cantel service

Equipment:
- leased space on N.B. Tel computer
- 40 decoders (Norpak and AEL Microtel)
- 2 Norpak IPS-II page creation terminals

International and Foreign Trials and Services

Banking — Macrotel Inc.

This commercial electronic banking service is being offered by Empire of America (Federal Savings Association) of Buffalo, N.Y. The service will allow customers to perform several functions including bill paying, funds transfer between accounts (cash management), and a variety of financial planning programs including such services as mortgage calculators and investment counselling.

The initial phase of the service, which started in July 1983, saw the placement of 50 Telidon compatible personal computers with corporate clients. Through the use of these enhanced banking features, these clients are provided more effective cash management. For security, these personal computers will utilize the Data Encryption Standard sponsored by the U.S. National Bureau of Standards.

Subsequent phases will expand the system by placing clusters of terminals in bank branches, providing an electronic banking minicentre within branches. The final phase will expand the service to include home banking. This phase will allow both Telidon compatible and standard ASCII (non-videotex) terminals to access the service. The costs for these services have yet to be finalized.

Commercial Service

Start date: July 1983

Duration: Indefinite

Sponsors: Empire of America FSA,
Linda James (716) 845-7260
Macrotel Inc.,
Genesys Group Inc.,
Nathan Leslie (613) 226-8740

Market:
- corporate clients
- consumer clients

Information and services available:
- balance inquiry
- financial planning
- Bill Payer
- funds transfer between customer accounts

Method of delivery:
- direct dial telephone (212 modems)

Equipment:
- GENESYSTEM™ 40 with GVS V5.0 software
- 50 Telidon compatible personal computers (IBM and Apple)

Other:
- support NAPLPS, 709-E and ASCII protocols
- uses the Data Encryption Standard

Grassroots™ – Infomart

Infomart is planning to extend their Grassroots service into the United States, during the upcoming year. Grassroots is a commercial agribusiness information service which is presently operating throughout the Canadian prairies. Based upon the success and expansion of the Canadian service, Infomart in conjunction with Videotex America and local Californian publishers will introduce Grassroots California in 1984. This new service will adapt and build on the functionality of the Canadian system to meet the needs of the San Joaquin valley farmers.

Infomart expects California to be a valuable step towards the eventual expansion of their service throughout the whole of North America, and on into other countries. Their has been active interest in such an expansion by several major farm cooperatives, and the opportunities look very promising. A general description of the existing Grassroots service can be found earlier in this book under **Manitoba** Grassroots-Infomart.

Inuit Circumpolar Conference General Assembly — International Telidon Demonstration

On May 10, 1983 the Department of Communications signed an agreement with seven national and international organizations for a month-long international demonstration of Telidon technology at the Third General Assembly of the Inuit Circumpolar Conference to held in Frobisher Bay on Baffin Island, Northwest Territories.

Using the Novatex host computer located at Teleglobe Canada's computer center in Toronto, the Telidon service will provide information in up to nine languages and dialects, to user terminals located at the conference sites in Frobisher Bay; Anchorage, Barrow and Bethel, Alaska; Nuuk, Greenland; Copenhagen, Denmark; Washington, D.C.; Vancouver as well as other northern communities.

The Department of Communications will supply Telidon user terminals and page creation terminals and will arrange for the training of several page creators and a data base manager. The department will also produce Telidon pages in English, French and Inuktitut, the Inuit syllabic language, from information provided by the National Museum of Man. The Department of Indian and Northern Affairs, will help to adapt and translate the information into Inuktitut, while the Kativik School Board will assist in the preparation of Telidon pages. The Inuit Tapirisat, host of the Third General Assembly, and the Inuit Broadcasting Corporation will contribute information for Telidon pages in English, French, Inuktitut, Greenlandic, Labradorian, Western Arctic, Inupiag, Yupik and Danish. The Inuit Circumpolar Conference will contribute information for page creation and provide general support to the conference.

Bell Canada will ensure telecommunications facilities between the host computer in Toronto, the terminal sites in Frobisher Bay, Anchorage and some of the other sites; while Teleglobe Canada will provide both the storage of the information data base and its share of the telecommunications links from Toronto to Nuuk and Copenhagen. Greenland Telecommunications and the Danish Post and Telegraph will contribute their share of dedicated communications facilities for connections from Nuuk and Copenhagen to the Teleglobe data base computer in Toronto. The North Slope Burough and the University of Alaska are also involved and will undertake the installation and operation of terminals in Alaska. Develcon Electronics, a data communications company with headquarters in Saskatoon, will help make the demonstration possible by contributing eight data multiplexers and data sets; while Sonoptic, an Ottawa consulting firm, provided invaluable assistance in organizing the demonstration.

This event marks a major contribution by the department to the United Nations International World Communications Year, and will be the first demonstration of Telidon in the Far North - showing how Canadian technology can bridge communication and information gaps in the Pan-Arctic.

Technology Trial

Start date: July 1983

Duration: 1 month

Sponsors: Department of Communications
Bell Canada
Danish Post and Telegraph
Develcon Electronics Ltd.
Greenland Telecommunications
Department of Indian and Northern Affairs
Inuit Broadcasting Corporation
Inuit Circumpolar Conference
Inuit Tapirisat of Canada
Kativik School Board
National Museum of Man
North Slope Burough
Teleglobe Canada
University of Alaska

Market:
- principally the Pan-Artic; Frobisher Bay, Northwest Territories; Anchorage, Bethel and Barrow, Alaska; Nuuk, Greenland; and Copenhagen, Denmark; Washington, D.C., Vancouver, British Columbia and other northern communities.

Information and services available:
- 700 page data base consisting of nine languages and dialects; English, French, Inuktitut, Greenlandic, Labradorian, Western Arctic, Inupiag, Yupik and Danish
- directory of Inuit Organizations
- media directory
- regional maps
- current issues
- Inuit Circumpolar Conference information
- General Assembly activities
- historical archaeological information
- educational information

Method of delivery:
- dedicated telephone (satellite, submarine cable and microwave) circuits
- direct dial telephone (212 and 1200/150 modems, Datapac and Tymnet)

Equipment:
- VAX-11/750 host computer
- Infomart ITSS-2 Software
- 24 Microtel decoders
- Cableshare Picture Painter page creation systems

Other:
- NAPLPS protocol
- specially developed Inuit syllabic character set (Inuktitut)

Learn Alaska Network — State of Alaska

The Learn Alaska Network offers a 500-page Telidon teletext system as part of its service to students throughout the state. Based on the NAPLPS standard, the service is delivered via the Learn Alaska Instructional Telecommunications Network using the satellite communications facilities of Alascom, the common carrier in Alaska. The Learn Alaska Network is operated by the University of Alaska Instructional Telecommunications Consortium (UAITC) on behalf of the university state-wide system and the Alaska Department of Education. This project is expected to revolutionize the delivery of educational services in remote areas.

The educational environment in Alaska poses unique challenges; only 10 percent of the approximately 250 communities are accessible by road. The Learn Alaska Network operates the world's first and largest low-power television transmitter network to provide service to those 250 communities. There are approximately 1500 Apple II microcomputers now in use in public schools and universities. Students use these computers, as well as, audio teleconferencing and broadcast television to receive a growing percentage of their instruction. For example, students can receive instruction, through their television sets, on how to operate computers. They also take courses via television and use telephone audio conference calls to discuss work with their instructors.

The Telidon-based system allows new or previously unavailable information, including entire computer programs, to be transmitted to students via the Learn Alaska Network. The network downloads computer programs via the vertical blanking interval simultaneously with teletext data transmissions. Using Telidon decoders, students can view this information on their television screen. Anyone who misses watching a course being offered on television or by audio conference can call up support material discussed during the class. Audio teleconferencing is greatly enhanced by Telidon's visual support material which enables instructors to display aspects of the course requiring clarification rather than relying only on verbal explanations.

Students in classrooms anywhere in Alaska will be able to call instructors by telephone, ask questions and have the support of visual aids while questions are being answered. The system will create an environment as close to that of a normal classroom as is possible for students separated by great distances.

Educational Service

Start date: Summer 1983

Duration: Continuing

Sponsors:
University of Alaska Instructional Telecommunications Consortium (UAITC) on behalf of the University of Alaska and the Alaska Department of Education,
Bill McCaughan, director, CIT/UAITC
(907) 786-1922

Market:
- Phase one
  15 terminals, to be re-located throughout the trial
- Phase two
  expanded service to other communities

Information and services available:
- instruction and support material for educational courses
- downloadable software

Method of delivery:
- teletext data (5.73 Mb/s) via satellite, local re-distribution via UHF and VHF TV transmitters and cable

Equipment:
- PDP-11/23 host computer
- GENESYSTEM™ teletext software
- Norpak MK-IV decoders (dual-mode videotex/teletext)
- Norpak TES-2 encoder
- Cromemco system IID
- Apple II Plus micro-computers (software downloading)

Other:
- NAPLPS protocol
- NABTS teletext specification
- Systemhouse Ltd. designed and installed the system
  Atul Srivastava (613) 526-0670

Novatex™ — Teleglobe Canada

The Novatex system is designed to develop and test the feasibility of a worldwide Telidon business information service and use Telidon as an information system within Teleglobe. The service is provided for the businesses and managers of multinational organizations.

Fifty Electrohome user terminals are in use (30 with integrated monitors) and 275 terminals in the iNet trial can also access the service. All user terminals are located in business or government offices in Canada, the United States, Europe, Australia, Hong Kong and Japan.

The data base includes English and French regular news wire services, a financial news wire service plus tourist and government information. More than 10,000 pages are available and new pages are constantly being created. The information is the property of the information providers which include The Canadian Press, Nouvelles Téléradio, the Office of Tourism, the Foreign Investment Review Agency, and the federal departments of Agriculture, External Affairs, Employment and Immigration, Fisheries and Oceans and Statistics Canada. Negotiations are underway to expand Novatex to include stock market and commodity trading information as well as financial and agricultural services.

The service includes a demonstration data base, keyword access to information, international messaging services and "page-cycling", which allows user-defined sequences of pages to be called up automatically. Novatex can also provide transactional services.

The computing facilities, located in Toronto, include a VAX-11/750 computer with 24 ports and a 100,000 page storage capacity. Information providers create their own content packages. Teleglobe has four page creation terminals for internal use.

The Novatex trial is financed by Teleglobe.

Evaluation will continue throughout the trial and a commercial service is anticipated.

Novatex

Market Trial

Start date: January 1981

Duration: 35 months

Sponsors: Teleglobe Canada,
Novatex group (514) 281-5736

Market: Business - International

Information and services available:
- 10,000 page keyword accessed data base
- financial information
- government information

Method of delivery:
- national access
  direct dial telephone (212 and 1200/150 modems)
- international access
  "Globedat" - packet switched service requiring network user ID

Equipment:
- VAX-11/750 host computer
- 30 Electrohome integrated user terminals
- 4 Norpak IPS-II
- Infomart ITSS-2 data base software

Other:
- service charges
  access - $50/month plus $10/hour
  storage - $1/page/month + IP subscription of $5,000 per year + other associated charges (for updates)
- NAPLPS protocol

Time Incorporated Teletext Service

Time Teletext Service is a full video channel teletext service developed by Time Video Information Services, Inc. (TVIS), a newly formed subsidiary of Time, Incoporated. Under development for more than a year, the service offers 5,000 pages of information and entertainment for users in San Diego, California and Orlando, Florida. The 24-hour service combines interesting, useful and up-to-date information with highly sophisticated graphics.

Using a numeric keypad, users choose from a variety of information clusters including national and local news, weather, sports, travel, stock quotations, educational, health and arts information, games and entertainment. Users can choose a good restaurant in their area at the right price, or select a gourmet recipe to prepare for a night at home. Educational games and features make learning fun for children of all ages. The latest international, national and local news will keep everyone in the family abreast of what's happening in the world. Software is downloaded and a built-in tele-software decoder permits access to a wide range of powerful computer-like features.

Time Teletext offers both a national and local service, in co-operation with Time, cable operators and local newspapers. Time, a leader in information delivery, provides uniformity of style and a cohesive national product. Newspapers, the best sources for local news and information, offer local input. The signal is transmitted via satellite from New York City to cable operators which distribute the service. Cable subscribers will pay a fixed monthly fee of between $5 and $10. The service requires one full video channel in the downstream direction.

To create its service, Time, Incorporated gathered together a staff of approximately 75 professionals who now work in Time's electronic newsroom developing the editorial and graphic style for the teletext service. Editors and writers have been called from newspapers, television stations and other media throughout the United States and Canada. The art staff is comprised of 10 graphic artists who represent excellence in their field. Together, they experiment with graphics, format and color, towards the creation of a visual style that will use the new technology to its best advantage.

TIME
Video Information Services

Commercial Service

Start date: October 1982

Duration: Continuing

Sponsors: Time Video Information Services, Incorporated (TVIS), New York, NY, Larry Pfister (212) 484-1992

Market:
- 150 homes in San Diego, California
- 150 homes in Orlando, Florida

Information and services available:
- 5,000 (at any given time) numeric keypad accessed pages
- teletext cycle includes national and local news, weather, sports, travel, stock quotes, education, games, health, arts and entertainment
- downloadable software

Method of delivery:
- teletext data on full video (R.F.) channel (5.73 Mb/s) distributed via cable television locally and by satellite nationally

Equipment:
- VAX-11/780 and 11/750 host computers
- Infomart customized software package
- Norpak TES-2 encoder
- Time, Inc. decoders:
  - Zenith enclosure, Z-Tac cable converter, keypad and user (statistics) interface boards, RGB to NTSC encoder board
  - Norpak MK-IV teletext decoder board
  - Owl Electronics telesoftware board
  - Hayes telephone modem (for collection of user statistics only)

Other:
- subscriber fee $5-10/month (future plan)
- NAPLPS protocol

Videopress — Cableshare Inc.

Videopress is a new public information medium which uses Telidon technology to deliver advertising, news and information to the public in high traffic environments such as major shopping malls. It features large screen monitors to display advertising messages to the public and secondly personal size interactive touchscreen monitors to display on demand information mixed with advertising.

The general objective of Videopress is to establish, develop, maintain and expand a profitable commercial electronic advertising and information medium employing Telidon technology for public use, initially in major urban centres across North America.

This commercial service, provided by Cableshare Inc., was first introduced in London, Ontario and has since spread to the Eaton Centre in Toronto, as well as to other cities such as San Antonio, Texas and Davenport, Iowa.

The systems are operated by Videopress with local merchants sponsoring the locally updated data bases. A typical data base will consist of some 2,000 pages of information including: news, weather, sports, travel, entertainment and transit information; classified ads, as well as other consumer and tourist topics. This information is provided free of charge to the shoppers and provides a focal point for advertising community information and events as well as shopping mall specials.

There are also plans to market Videopress systems to cable systems.

Commercial Service

Start date: December 1982

Duration: Permanent

Sponsors: Videopress,
Peter Watson (519) 434-4576

Market:
- computerized shopping mall guides

Information and services available:
- data bases of typically 2,000 pages are updated at least twice weekly with community activities and services, entertainment, dining, news, weather, sports, transit and travel times, lottery numbers, classified ads, supplemented with specialized mall information
- future: electronic ticket sales, electronic message board

Equipment: a typical system can consists of
- IBM and RAIR personal computer page creation systems
- Cableshare software
- Cableshare Touchscreen terminals
- data storage on videodisc

Other:
- NAPLPS protocol

Videotex America Field Trial/Gateway

In the fall of 1980, the Times Mirror Company, one of North America's leading communications companies, began experimenting with videotex. The company formed Times Mirror Videotex Services (TMVS) in January 1981 to evaluate the opportunities that videotex presents for electronic publishing and the distribution of information and transactional services. In January 1982, TMVS entered into a joint venture with Infomart and formed Videotex America.

Videotex America's field trial offered 350 home users in Southern California (200 in Rancho Palos Verdes, 150 in Mission Viejo) news, weather and sports information, community bulletin boards and transactional services such as airline reservations, home banking, shopping and electronic mail. Distributed via telephone and two-way cable, users called up information by entering a key word or page number or by selecting from index pages. Service charges were introduced in the later stages of the trial.

More than 60 organizations were involved in the videotex field trial as information providers, service providers or advertisers. They included special interest magazines, newspapers, national and local retailers, airlines, book publishers, libraries, schools, colleges, real estate companies and investment services firms. Ten operating units of the Times Mirror Company also participated including Harry N. Abrams, Jeppeson Sanderson, the Los Angeles Times, New American Library, Newsday, Outdoor Life, Popular Science, Ski Magazine, The Sporting News and Times Mirror Magazines' Book Division.

The trial helped Videotex America gain experience operating a videotex service and provided information on what videotex services consumers wanted and would pay for, on the information needs of individual family members, on the expectations of information and service providers and advertisers and on the cost of operating a videotex system.

Since the termination of the Rancho Palos Verdes/Mission Viejo trial in December 1982, Videotex America has signed agreements with The Arizona Republic/Phoenix Gazette; Cowles Media, publishers of The Minneapolis Star and Tribune; The Florida Times-Union/Jacksonville Journal, The Sacramento Bee, The San Francisco Chronicle and The Washington Post. On April 21, 1983, The Times Mirror Company announced plans to launch a commercial videotex system in the Greater Los Angeles area early in the second quarter of 1984 as the next step in the development of its

GATEWAY videotex service. GATEWAY's initial subscribers will draw from a data base of some 50,000 pages of information and services ranging from constantly updated news to in-home banking, shopping, electronic messaging, educational programs, and games. Some services are provided when the videotex computer connects subscribers to other remote computers.

VIDEOTEX AMERICA

GATEWAY

Market Trial

Start date: March 1982

Duration: Terminals in 350 homes for a minimum of six months

Sponsors: Videotex America; a joint venture of Times Mirror Videotex Services and Infomart
James H. Holly (714) 957-2400

Market:
- 350 volunteer households (200 in Rancho Palos Verdes, 150 in Mission Viejo)

Information and services available:
- 23,000 page information data base
- 200,000 words of news, updated daily
- transactional services including home banking, shopping and electronic mail

Method of delivery:
- Rancho Palos Verdes
  direct dial telephone
- Mission Viejo
  two-way cable

Equipment:
- 2 DEC/VAX host computers
- Infomart ITSS-2 software
- user terminals include:
  - 19-inch Electrohome color television
  - Norpak MK-III decoder
  - Electrohome hand-held alphanumeric keypad
  - General Datacom modem (telephone delivery)
  - Ecom modem (cable delivery)

Other:
- NAPLPS (future services)

Weather Information System for Airline Pilots — Mitre Corp.

Weather data, stored in the Mitre Corporation's computers in Washington, D.C., is now being made available to airline pilots in western New York state using the Telidon graphics protocol.

This service trial is a co-operative effort between Genesys Group Inc., of Ottawa, Ontario, Mitre Corporation of Washington, D.C. and Macrotel Inc. of Buffalo, N.Y. A 1200 baud dedicated telephone line links a GENESYSTEM™ 20 conversion system, located at Macrotel's offices in Buffalo, N.Y., to Mitre's national aviation data base in Washington, D.C. This service will assist airline pilots in developing flight plans, by allowing them to graphically track weather systems throughout the United States. The information requested by the pilots will be dynamically generated by the GENESYSTEM™, based upon data retrieved from the Mitre data base.

During the trial phase, the service will be provided free of charge to the homes of ten airline pilots operating out of the Buffalo airport, there will also be a public terminal placed within the Buffalo airport. Using keywords to access information, users can retrieve a wide variety of current weather information for local, en-route and destination areas.

Once the service trial is completed, this graphic weather information bank is expected to be introduced throughout Mitre's national service. Along with the commercialization of the service, will come the conversion of digitized satellite maps into isobars and contour maps. A consumer version of the radar weather service is also being considered for cable television systems.

Service Trial

Start date: June 1983

Duration: Indefinite

Sponsors: Mitre Corp.,
Arthur McClinton Jr. (703) 827-6356
Macrotel Inc.,
Genesys Group Inc.,
Nathan Leslie (613) 226-8740

Market:
- airline pilots

Information and services available:
- pilot reports
- crew notices
- geographic information about a given location
- Alert Weather Watch
- hourly surface observation
- airport terminal forecast
- TWEB route forecast
- weather synopsis (TWEB)
- digitized weather radar summary
- forecast of winds aloft
- convective SIGMET
- altitude density

Method of delivery:
- dedicated line and direct dial telephone (1200/150 baud modems)

Equipment:
- GENESYSTEM™ 20 data base with GVS V5.0 software
- 10 Norpak MK-IV decoders
- 1 AEL Microtel public access terminal

Other:
- NAPLPS protocol

WETA Teletext Service

The Alternate Media Center (AMC) of New York University's School of the Arts, using the vertical blanking interval (VBI) of WETA-TV in Washington, D.C., offered its Telidon teletext service, to evaluate the public's reaction to teletext. The trial, funded by the Corporation for Public Broadcasting, the Department of Education, the National Telecommunications and Information Administration and the National Science Foundation, was the first federally-funded U.S. teletext trial. Technical expertise and equipment was provided by DOC. Field trial research was carried out to evaluate user needs and public service applications and a series of psychological experiments were conducted under laboratory conditions in New York City.

Twenty terminals and teletext decoders were placed in private homes and public locations such as the Martin Luther King Library, the Smithsonian Institute, schools and social clubs for the handicapped.

To gather user data, each decoder contained a meter which recorded the date, time and page number of each request. The information was collected and the data tabulated by WETA staff.

A new cycle of information was composed daily. News, sports, weather and special reports changed from day to day, while such sections as consumer information and library guides were updated weekly. Information providers included WETA, AMC, The Washington Post, the Internal Revenue Service, the Smithsonian Institute, the U.S. Department of Labor and the Consumer Information Center. The service offered up to 130 pages of text and graphics and operated every day from 8:00 a.m. to 1:00 a.m.

In September 1982, the Alternate Media Center concluded its role in the Washington field trial and turned operational control over to WETA-TV. With funding from the Corporation for Public Broadcasting (CPB), WETA operates a VBI teletext service to 20 public locations. Drawing on the experience and expertise developed during the first phase of the trial, WETA plans to expand its service to offer an "open channel" transmission of pages during non-regular-programming hours. This will allow viewers without decoders to access information compiled in the teletext cycle.

The following publications are available from AMC:

(i) Research on Broadcast Teletext: Access Time and Reception Quality in the Field Trial in Washington, D.C.

(ii) Measuring Subjective Reactions to Teletext Page Design

(iii) Early Use of Graphics in the Alternate Media Center
WETA Teletext Trial

(iv) Early Experiences of Information Providers in the Teletext Field Trial in Washington, D.C.

(v) Labour Costs of Creating Teletext Pages

(vi) The Teletext Field Trial in Washington, D.C.: Technical Background and Issues

WETA

Public Service

Start date: June 1981

Duration: Continuing

Sponsors: WETA TV (PBS) Washington, D.C. Corporation for Public Broadcasting (CPB), George Stein (703) 998-2771
Department of Communications, (613) 995-5081

Market:
- users in 20 public locations including libraries, institutions, schools, social clubs, etc.

Information and services available:
- daily teletext cycle of approximately 70 pages of news, weather and arts calendars
- special features include consumer information, library guides, etc.

Method of delivery:
- teletext data (4.58 Mb/s) broadcast on lines 15 to 18 of vertical blanking interval (VBI) of WETA-TV on UHF channel 26

Equipment:
- PDP-11/34 host computer
- Norpak Information Provider Systems
- DEC-11/03 Encoding mini-computer
- Norpak MK-III decoders

Other:
- 699 presentation protocol

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