

that permits independence of information storage from the delivery and receiving systems. Otherwise, we'll be stuck with a system approach with a life of about five years before much of the information in the data banks will have to be redone for the next generations of systems. That's one area where our approach is far superior to what the Europeans have done."

Telidon's component parts

Bown and his team built further flexibility into Telidon so that a number of component parts could be used depending on the degree of sophistication needed. A user could, for example, phone a data bank and by punching a few buttons on a keypad retrieve pages of information for display on his modified TV set.



Keypad used for calling up "pages" of information for display on TV.

Attached to the TV set is a special interface device which receives instructions from a computer and converts these signals into texts and images to appear on the screen. The interface device is about the size of an attaché case although the process of reducing it in size and cost is going on now. Within two years, an integrated circuit version will be available which could be incorporated into the TV. The current model of the interface device is plugged into an ordinary electrical outlet and has two cables running from it into the antenna jack of the home TV set for simple applications, or directly into the red, blue and green guns of the TV for more demanding applications or higher resolution. For home use, a keypad or for business use, a keyboard (like a typewriter's) can be wired to the box or operated by remote control.

With a keyboard wired to his set, the user could introduce information to a

PUBLIC ACCESS INFORMATION SYSTEM	
INDEX	
0 - INDEX	17 - THEATERS
1 - EXPLANATION	18 - MOVIE HOUSES
2 - NEWS HEADLINES	19 - TOP 10 RECORDS
3 - NEWS LOCAL	20 - BEST SELLERS
4 - NEWS NATIONAL	21 - NOTICEBOARD
5 - NEWS FOREIGN	22 - GOV. - AGENCIES
6 - WEATHER NATIONAL	23 - HEALTH
7 - WEATHER REGIONAL	24 - TOURISM
8 - WEATHER MAP	25 - CRC IMAGE COMM

Example of index of a public access information system using Telidon.

data bank for retrieval by others. This opens up a range of possibilities for small entrepreneurial electronic publishers. In future, the user could also transmit the information to a friend or business colleague who has a similarly modified TV or video display terminal (such as those with which some word processors are equipped).

The business user could also have a light pen (with which a line can be drawn on the screen) or "joy stick" (a lever which controls a marker on the TV screen) to further manipulate or alter the information on the screen. In the case of terminal-to-terminal connection, users would in effect be sharing an electronic blackboard.

Advantages of Canadian system

The Canadian technology has many advantages over other systems, the most important being the way in which an image on the screen is described. Telidon uses picture description instructions (PDIs). Their approach was to describe or code images as being composed of geometric elements: a point, line, arc, area and polygon. An image does not appear line by line as it does on the British system; it can be composed using the natural language of drawings in terms of geometric shapes. The PDIs also include an instruction to define photographic images when the contents of the image cannot be described by these geometric shapes.

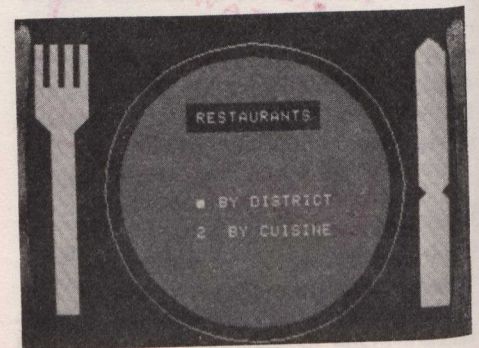
Since the image is progressively composed on the screen, comparatively few instructions from the central computer (where the information is stored) are sent out at a time to individual terminals. Thus, much less network capacity is needed. It also means that much higher resolution of an image can be obtained

using the Canadian system. A line, for example, is drawn as a moving point, not composed of a closely joined series of squares.

Among the other advantages of the Canadian technology cited by John Madden, DOC's co-ordinator of new home and business services, are:

- With its superior resolution, it can reproduce maps, charts, cartoons and engineering drawings clearly and accurately and with flowing lines.
- Because the data base coding is independent of the display terminal and communications media, changes in the standards of display terminals or communication media will not affect the data bases.
- A terminal based on the Canadian system can easily be modified to also display signals from other countries' systems. The converse is not possible.
- The videotex terminal with its built-in computing power can act as a mini-computer for home or office use.
- The design permits one terminal to communicate directly with another without need of a central computer.
- The system has electronic mail capability for sending or receiving messages, including sending of personal signatures.

(From *In Search*, Winter 1979.)



Dining out? Check Telidon first.