

# SOCIOSCOPE INC.

## A REPORT ON A FOCUS GROUP STUDY OF USER RESPONSES TO TELIDON

Prepared by: Fernande Faulkner, M.A.  
Michael Gurstein, Ph.D

For: The Department of Communications

March 31, 1983  
Ottawa

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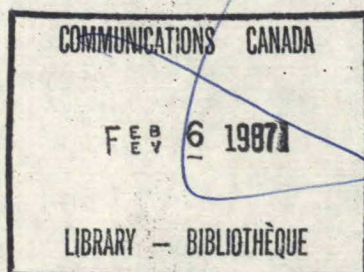
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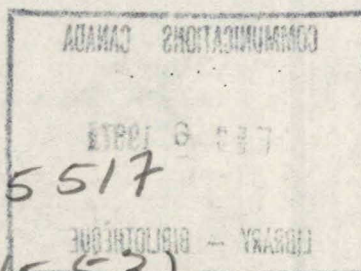
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## Executive Summary

Ten focus group discussions were conducted with a common discussion guide. The areas referred to include a variety of applications — education, banking, shopping, voting, etc. — and a number of issues of possible social policy concerns such as privacy, accessibility, reliability and employment. Of the groups, two were held in Elie, Manitoba (adults and youth), five in Toronto (three adult, one control group and a group of Telidon professionals), two in Cap Rouge (men and women) and one in Montreal with Francophone Telidon professionals.

The results of these group discussions were reviewed in relation to each of the elements of the discussion guide. In addition, the responses of various groups were compared with each other and finally an attempt was made to identify common themes underlying the various responses.

Among the results of interest were the greater optimism concerning the success of the system evidenced by the control and professional groups than by the user groups, the concern for the relative "impersonality" of the system especially as regards certain areas such as education, shopping and banking and the relative lack of concern by the user groups concerning the social issues especially as compared to more immediate issues of system technical reliability and information freshness.

## 1. INTRODUCTION

Telidon, the Canadian developed videotex system, has been undergoing field trials in several locations. In some cases systems have been operational for over a year.

While a variety of types of information is available on the results of these trials, much of it is concerned with marketing opportunities and system usage. No information is currently available presenting the user's qualitative response to various operating or projected applications or to some of the social and other issues which various commentators have identified with respect to the introduction of a commercial videotex service.

It should be noted that when we are discussing Telidon, we are primarily concerned here with Telidon's interactive "videotex" rather than broadcast "teletext" mode. The reasons for this are two-fold: first that the "trials" from which our groups were drawn were interactive trials and second because many if not most of the larger issues presented by Telidon are raised by the interactive system - where naïve users are brought into direct and on-going two-way communication with the computer and a computer stored data base.

The results which are described and discussed below are interesting both for what they say and for what they don't say. For videotex professionals,

public servants and media commentators, Telidon tends to be seen as what it might be i.e. a fully interactive information utility, with widespread utilization, and a voluminous database i.e. a system with the hardware, software and content "bugs" having been ironed out. For those who are actually using the system which is available now, the reality is much more mundane - it is hardware which is unreliable, software which is awkward and content which is, at best spotty.

The responses to our probes reflect in many places the discordance in the two realities. We are asking questions concerning a mature system and yet given the current stage of the system's development - some at least of these are seen as being irrelevant for now and even the foreseeable future.

From a policy perspective, and our findings are meant to inform policy makers, there is a dilemma. Can they and should they respond in policy making to a system's possible future or to its current reality? If they do the former they run the risk of over-compensating or even legislating in ways which will prove detrimental to a system's development and to the public interest. If they do the latter and wait for the problems to arise they run the risk of being seriously overrun by events given the current pace at which technology is developing and being accepted.

For this reason we have included two types of controls into our analysis. One control consists of those familiar with the system but who have no



direct experience of its use and the other consists of professionals from the Telidon industry. The policy maker reading this report for direction should examine our results both in the light of the responses of informed non-users (representing the general public) and of Telidon professionals (representing those whose day-to-day activities are premised on a commercially viable videotex service).

The messages received, perhaps inevitably, are cloudy. No dominant themes of anticipated social issues present themselves. Rather it appears from those at the front lines of general users and informatics that haste is made slowly. The boxes are in place and they are working more or less as they are supposed to but what is currently available does not excite and what can be foreseen based on what is currently being experienced does not inspire. These results, however, are only for field trials and field trials moreover with the general public; for whom, the current consensus is arguing, interactive videotex will not be available for some time.

We would like to thank Dr. Dorothy Philips, of the Department of Communications for sponsoring this study and for assistance received from Manitoba Telephone System and Bell Canada.

## 2. METHODOLOGY

Focus groups are a widely used methodology for gathering and analysing qualitative opinion especially with respect to marketing information.

In this study we deviated somewhat from a conventional focus group approach in that we have attempted to examine user response in the light of controlled variation.

The universe from which we could draw for our study was the Telidon field trials in Canada. Since we were concerned with domestic rather than business Telidon use and videotex rather than teletext, we were further restricted to the Manitoba Telephone System's trial in Elie, Manitoba and Bell Canada's trials in Cap Rouge, Quebec and Toronto, Ontario.

In reviewing the distribution of terminals in these trials and after discussion with the scientific authority at the Department of Communication, it was decided to attempt to examine, in addition to overall responses, contrasting responses by Francophones and Anglophones, male and female, and different age and income categories. In addition it was decided to use two types of controls for the system users - one consisting of those who had requested participation in the trial but had for a variety of reasons been refused (reflecting a population with significant information about Telidon but with little direct experience with the system) and a second consisting of professionals in the Telidon industry.

In addition to the intrinsic interest of the responses by the latter group to our probes we felt we could use these as a control reflecting as they would a highly sophisticated set of responses as well as a perception of what Telidon could become rather than simply what it was in its existing experimental state.

A matrix was developed which would allow for analysing and contrasting the opinions of certain specific groups (Table 1).

Table 1:

		E		F	
		M	F	M	F
> 19		X			
19-55	upper income	✓	✓	○	○
	lower income	X			
55+		✓			

Toronto, Ontario  
 Elie, Manitoba  
 Cap Rouge, Quebec

✓  
 X  
 ○

Thus the ten groups were to have been as follows:

- |    |           |                 |           |                |
|----|-----------|-----------------|-----------|----------------|
| 1  | Elie      | - under 19      | - (M & F) |                |
| 2  |           | - 19 - 55       | - (M)     | - lower income |
| 3  | Toronto   | - 19 - 55       | - (M)     | - upper income |
| 4  |           | - 19 - 55       | - (F)     | - upper income |
| 5  |           | - 55+           | - (M & F) | - control      |
| 6  |           | - 19 - 55       |           |                |
| 7  |           | - Professionals |           |                |
| 8  | Cap Rouge | - 19 - 55       | - (M)     |                |
| 9  |           | - 19 - 55       | - (F)     |                |
| 10 | Montreal  | - Professionals |           |                |

It was our understanding that it would be possible to select group participants on the basis of the identified criteria. In accordance with D. O. C.'s agreements with the trial operators, prime contact with the proposed participants was to be done through the operators. To this end we identified our requirements for each group and it was left with each trial operator to ensure that sufficient numbers (8-10 persons) within the specified categories would attend the sessions.

In each case a letter was sent out inviting individuals to attend with a return self-addressed card for Socioscope Inc. Unfortunately there were several problems with the selection by factors.

These were:



- no female students participated in the "youth" session at Elie, although we looked to have equal male and female participation.

- the male and female 19 - 55 groups and the 55+ group in Toronto were not restricted to these categories. Thus the male group and female group both contained females and males and the 55+ group contained only two people (of 6) over 55. Our instructions in this regard do not appear to have been carried out by the field trial operator. In our subsequent analysis we have selected out males and females for analysis.

- it was not possible to select out a group of those 55+ for comparison.

- in addition, it did not prove possible to find sufficient numbers of Francophones who had expressed interest in participating in the trial to constitute a second control group. A Francophone Telidon professional group was substituted for this with the agreement of the client.

Those attending were asked to complete a short questionnaire (in English or French) (Appendix A) which would give biographical and Telidon related information.

Seven of the groups were conducted in English and three in French with eight (both French and English) and two (English) being conducted by each of two experienced group leaders.

Appendix B gives the discussion guide for the sessions. Not all sessions proceeded at a similar pace. In some cases there was more extensive discussion on some issues than others and in several cases items had to be dropped because of time constraints. Each session lasted from 1½ to 2 hours.

Each individual was asked for his or her opinion on each of the items with the discussion leader probing for additional comment where required. The professional groups were found to be more voluble and were allowed to range more widely in their comment and selection of topics.

Each session was taped in its entirety. These tapes have been partially transcribed with extraneous comments and the interventions of the discussion leaders being largely edited out in the process of transcription (Appendix C contains the transcripts of the sessions).

Following the transcription of the tapes, comments have been organized as pertaining to each of the topic areas. In addition, comments by male and female Toronto Telidon users have been separated. These comments were then reviewed in relation to each issue.

The presentation of results and discussion below is based on this review.

### 3. THE GROUPS

#### 3.1 Elie

Elie is a largely Francophone rural service community some 25 miles West of Winnipeg. The population consists of persons who provide services to the local farming population, retirees and commuters to Winnipeg attracted by the small town environment or who have roots in the area.

Elie was chosen for the trial because of its proximity to Winnipeg, its telecommunications infrastructure (it could support the new services to be provided) and because it lacked cable television service (cable television being one of the service offerings additional to Telidon which were being experimentally delivered). Some 100 terminals were currently in use in Elie one of which was in the local school. In addition to other data bases, the trial participants had access to the Grassroots data base, Cantel and to a messaging service offered by the trial operators, in addition to a database offered specifically for this trial.

Two groups were conducted in Elie. One was to have been with moderate income males and the other with a mixed age group of high school students (male and female). One of the male participants in the adult session brought along his wife. No female students attended the session with the young people and only five of an expected ten attended.

The adult group included a retiree, a mechanic, a salesman who commuted to Winnipeg, a house painter and a wholesale manager. The group for the most part had completed high school and ranged in age from early 30's to late 60's. One person used the system once per day, another three times per week and the others less than once per week. Interestingly all indicated that they used the system for at least 5 minutes / session and three indicated that they used it for at least 10 minutes / session. Five out of six indicated that they used the system for weather, four indicated that they used it for games, and other uses were for news, farm information, lottery information, etc. All indicated a favourable opinion of the system especially its "educational" potential but several felt that it was still undeveloped or was of more interest or benefit to others (children, farmers, etc.) than to themselves.

The attendees of the youth session ranged in age from eleven to fifteen. They all indicated that they used the system at least three times per week and four out of five indicated that they used it at least once per day. In all cases the sessions of use were "more than ten minutes". All five indicated that a primary use was for games. Four out of five used it for "news", three for "sports" and two for "messaging". All thought favourably about the system but three felt that it could be improved. "It's okay but it needs better games", "Pretty good but it gets boring". One person summed up their feeling as: "Better than what we had before".



### 3.2 Toronto

The field trial in Toronto was operated by Bell Canada. At the time of the study some 175 terminals had been distributed within several telephone exchanges where available infrastructure was appropriate. These terminals were being rotated so as to increase the number of trial participants.

Participation in the trial was based on a response to an invitation issued by Bell Canada, although some attempt was made to obtain a degree of socio-economic and demographic representativeness.

Although we requested selected participation in our groups (by sex and age), we were not in a position to ensure this and it would appear that our attendees reflected the overall age and income distribution of the trial population. Thus of 19 attendees at the general groups in Toronto some five were women.

They ranged in age from late twenties to early sixties with the largest group being 30 - 39. Only two of nineteen indicated that they had no formal post-secondary education and twelve of nineteen had completed post-secondary or professional training. All indicated a family income in excess of \$30,000.00.

Telidon usage was relatively infrequent with three-quarters using the system once a week or less.

Figure 2 - Frequency of Use: Toronto Telidon users

More than once / day	
Once / day	1
Three times / week	4
Once / week	7
Once every two weeks	4
Once per month	2
Less than once / month	1
	<u>19</u>

Eighteen of nineteen attendees indicated that a session lasted for at least five minutes and fourteen for at least ten minutes. Fifteen attendees indicated that "games" were one of their usual uses for Telidon, fourteen indicated that they used it for "information", six indicated that they used it for "financial information", five used it for "shopping" or "shopping information" and others for education, weather, community information, restaurant guide, etc.

All of the respondents had an overall favourable impression of the future potential of the system but all but two indicated disappointment with what they currently had available to them. Eight respondents criticized the data base for being "too narrow", "not updated frequently enough", "poorly indexed" and "commercially biased". Two felt that an interactive system would be an improvement and others criticized the system's ease of use and its graphics and colours.

### 3.3 Cap Rouge

Cap Rouge is a municipality on the outskirts of Quebec. With the expansion of the City of Quebec in recent years it has come to be considered a suburb of the city. New and very desirable residences have been added to the old town on the St. Lawrence. It is a largely affluent community and our sample comprised middle and upper middle class respondents. Cap Rouge was chosen as a field trial site because it is a fairly homogeneous close-knit community that could illustrate the possible community uses of the system. There are 80 terminals in use in Cap Rouge and the Bell-Vista project is managed locally by Edimedia, a Quebec communications firm which provides approximately 500 pages of news, general and local information to the existing French data bank.

Two focus groups were held in Cap Rouge, one with women and one with men. The response from the male sample was much better than expected. In order to ensure an attendance of approximately ten respondents, twice that many were invited. In Cap Rouge, when the follow up phone calls were made, the rate of refusal was very low. Also, even though invitations were directed to women, many of the women selected passed on the invitation to their husbands. Although the response was overall very good in Cap Rouge, twice as many men (17) as women (8) attended the group discussions.

The women's group included mostly housewives with the addition of one nurse and one secretary. All except one (a student who accompanied her mother) were in the 30 to 60 age category and all had 12 years of schooling or more.

There was a scattering of responses to the question of uses of the system, with only three respondents using it as much as once a week. When they did use the system, all female respondents used it for more than ten minutes.

The most frequent use of the system was for local news, community information, recipes, and specials. Most felt their experience of Telidon to have been worthwhile, although one respondent commented that it was not of much use to housewives.

The men's group included civil servants, technicians, administrators, engineers, managers, a professor and a director of marketing. There were also two students present. Except for the students, the group ranged in age from 30 to 60 years old.

Fairly frequent use was made of the system. Two used the system daily and more than half the group (9) used the system more than three times a week. Most used the system for more than ten minutes at a time (12) while the remainder (5) used it for 5 - 10 minutes at a time. The most popular use of the system for the male respondents was games, news, general information, local news, weather, finance, bus schedules, and Loto in that order. Most felt their experience of the Telidon system to have been worthwhile with some comments about needed improvements.



### 3.4 Telidon Professionals

#### 3.4.1 Introduction

Our objective in the professionals groups was to have Anglophones and Francophones working as professionals in the videotex industry to comment on the same topics as the users. In this way we could compare the opinions of those experienced with using Telidon with those experienced in providing Telidon.

A list of appropriate individuals and organizations was prepared and reviewed with the scientific authority and invitations were issued. Those attending included page creators, data base developers, content providers, information suppliers and consultants. The English professional group had a preponderance of those responsible for managing or providing content to the system, while the French professional group had more representatives from the technical infrastructure of Telidon, i.e. system providers and data base developers.

#### 3.4.2. Telidon Professionals - Toronto

John Must -	President, Marconi Baird Inc.
Melitza Haig -	Coordinator of Electronic Services - The Bay Involved in electronic marketing
Barbara Nelson -	St. Clair Videotex Design - a firm providing a creative page service for Telidon
Martin Lane -	Director of Videotex Services - Informart
Roger Elms -	Association of Community Colleges. Involved with educational applications of Telidon.

- Doug Carson - Manager, Telidon Division, Community Information Center of Metropolitan Toronto.
- Jeff Bond - Ontario Government. Involved with the administration of Teleguide.
- Dave Butters - Ministry of Tourism and Recreation, Government of Ontario

#### 3.4.3. Telidon Professionals - Montreal

- Denis Beaudry - Associate Director - Centre for Technological Development
- Jacques Delorme - Consultant. Adviser for I.S.T. on the uses of Telidon
- Jacques Cardinal - Doucet & Associates, the firm responsible for the introduction of Telidon at the Palais des Congrès conference centers.
- J-C. Asselin - Supervisor of the IRIS teletext project at Radio Canada in Montreal.
- Marius Morais - Director of the Radio Canada IRIS teletext project.
- Jean Marc Hébert - Director Business Development, Quebec Region, Bell Canada Responsible for the Vista-Bell field trial in Quebec.
- Pierre Mathieu - Edimedia - Firm responsible for the Bell-Vista project in Cap Rouge.
- Fred Mercer - Teleglobe - involved in the application of Telidon in different Canadian embassies to provide information of use to businessmen in doing trade.
- Danielle Marleau - Marlimage - A firm specializing in page creation.

#### 4. TELIDON APPLICATIONS

##### 4.1 Introduction

We reviewed a variety of possible application areas with the Telidon users. As already noted our intent was not to duplicate the marketing research which others are conducting. Rather we were looking to determine the response to those of the range of possible application which have the greatest potential for affecting social behaviour and the social environment. These of course, are the ones which will have the greatest requirement for response by those concerned with social policy.

Thus we discussed the following application areas:

- a. Education - because it, superficially at least, appears to be an immediate application and because of the current concern for the introduction of computer and computer aids into the education system.
- b. Banking - because it is a widely discussed application and because banking raises serious questions concerning privacy, security and reliability.
- c. Shopping - because of the possible significance which widespread utilization of teleshopping could have in a variety of areas.
- d. Health care - because of current discussions about alternatives to conventional systems for the delivery of health services.

- e. Games - because our preliminary discussions with those active in the trial indicated that this was the most frequent current use and thus could perhaps give us insight into overall reactions to the system.
- f. Voting - because of current discussion concerning the electronic citizen.
- g. Government information because of the likely significance of government information for the future "viability" of Telidon.

For each of these areas we gave a brief introduction and then invited comments. We would, where necessary, prompt discussion in certain areas.



## 4.2 Education

### 4.2.1 Findings

Overall education was favourably seen as an application for Telidon, although as a supplement to existing educational methods rather than as an alternative. However, the Francophone groups were less positively oriented toward this application than the Anglophone and the control group was the most positive of all. Overall the youth group was quite positive as was the Anglophone professional group. There was no systematic difference between male and female discussants.

Among the positive comments from Anglophone adults were that:

- "it was good for step-by-step instruction, e.g. income tax returns";
- "good for brief information without going into great detail";
- "an exercise tool as in Mathematics";
- "Telidon could teach people to use computers and not be scared";
- "O.K. for brief definitions";
- "not for basic education but good in areas of self-improvement";
- "graphics could keep the students interested";
- "as a source of reference";
- "as a teaching machine";
- "as a supplement to other sources";

- "teaches kids to deal with computers and keypads from an early age";
- "forces the user to ask questions unlike T.V. which is passive";
- "limitless potential";
- (fem) - "could make the regular school program available to handicapped children on Telidon";
- (fem) - "easier for children to use than computers";
- (fem) - "good for prenatal classes, especially in rural areas".

Overall the conclusion seems to be that the system does have a place as a teaching tool especially in graphics applications but that it can only supplement not replace the human element at least in formal education.

There may be more of a role in informal education but even here the overall technical limitations of the system as experienced by the user suggests that Telidon may have some way yet to go before it would be widely accepted even in this area.

Among the negative comments from Anglophone adults were several which focussed on the limitations of the current system - the indexing, the slowness of page filling and the screen:

- "I can't see my children sitting in front of the screen and reading these pages for any length of time";
- "unhealthy for students to spend too much time in front of T.V.";
- "it's hard on the eyes";
- "information is too limited, too general";

- "turning pages too slow now";
- "I wouldn't enjoy reading the thing for a long time";
- "problems with the way it is structured, as the menus get larger, it is more difficult to use";
- "indexing is difficult-easier to use books where you can move back and forth";
- "need to study colours first, Background colour is important. May cause eye fatigue.";

It is noteworthy that the Elie youth group expressed overwhelmingly positive comments concerning its use in education:

- "can take your time with it";
- "can learn some things not offered in school";
- "can look up careers (Cantel)";
- "we all learned to program on it";
- "has some stuff the teacher doesn't know";
- "could free the teacher to give more time to individuals";
- "I'd like to have courses on it - physics, math."

The negative comments are also revealing:

- "it doesn't explain things good enough";
- "it would be better for someone to explain it to you than to read about it".

The Elie adults indicated a theme which runs through all of their comments - the system was acceptable but it held little of interest for them. They could see the use of it in education, but for the young not for themselves:

- "OK for kids";
- "my kids are using the material particularly the Math";
- "it's no problem. It's a kids game."

Their negative comments indicated their underlying conservatism concerning the system:

- "I couldn't learn to fix a car using the system. The pictures aren't clear enough";
- "Kids don't have the discipline to work on their own at home using Telidon";
- "It would be good as a sideline but you could never get rid of teachers."

The Francophone groups in Cap Rouge both male and female were overwhelmingly negative in their comments although women were somewhat more positive than men.

There was a strong emphasis on the importance of interpersonal communication.

The men's group indicated only that:

- "Telidon could be complementary to conventional education."

The women's group pointed to certain specific items or applications where it would be useful, especially "Genie en Herbes" and "Quebec Science" and for the "handicapped" and "shut-ins".

The negative comments were both of a general and a specific nature:

- "Human interaction in education is very important. It could never be replaced";
- "Would be useless to children before secondary school. Younger people can't concentrate longer than 10 minutes";
- "It is tiring for eyesight";
- "Children get bored with the same old information";
- "It's too difficult to access for children (indexing)";
- "It's too impersonal. We live with people not machines";
- "Children need human communication more than facts";
- "Basic data is not updated - current information more than a month a month old";
- "I couldn't follow courses on that";
- "I can listen to the radio while doing my housework";

By contrast with these responses, both the control group and the Anglophone professional group were strongly favourable to the potential for Telidon's application in education. The Francophone professional group mirrored the overall skepticism of the Cap. Rouge users groups.



The Anglophone professionals stressed the effect it would have on the style of education:

- "students could work on their own";
- "could get information when they wanted it at their own speed";
- "could create own information";
- "learning while playing a game";
- "can stimulate creative side of education";

They also mentioned how the specific elements of Telidon might be useful as an educational aid in "fine-arts", "social sciences", "teaching deaf children to read", "sequentially organized continuing education courses" and as "graphic display" for classroom support.

The negative comments pointed to: "the cost of developing courseware", "the cost of the terminal", "poor speed of search and display" and the fact that "pushing buttons may not be educational."

The control group with little direct experience of the, system remarked on the system's "good potential", on its possible application in "teaching languages, grammar and math" and the "attraction" the system would have for young children.

The French professionals focussed on the limitations of Telidon overall, implying that the system may not be living up to the expectations of its promoters:

- "The pilot projects in education show that on its own Telidon is insufficient. It has to be allied with other technologies such as videodiscs."
- "Problem with Telidon is that it has been presented by the Federal Government as able to accomplish all sorts of things. People expect too much from the system providers. They assume that we have created the applications."
- "For many people, Telidon has been linked to computers. They discovered the new telecommunications capacities and the computer capacities when they came to see Telidon. Telidon does not have all the capacities and in many cases it is inappropriate for libraries or education where a greater computing power is needed."
- "Other forms of computers can offer access to data banks and texts cheaper than Telidon."
- "For the moment, it should be seen as a specialized mode of communication."

The positive comments highlighted its particular features:

- "Telidon's fortê is presentation.";
- "allows you to create programs much more quickly";
- "we are already using it in-house to provide the basis of training."

#### 4.2.2 Observations

The delivery of educational materials by means of Telidon is one of the "public service" applications most frequently cited. Our control group and our Anglophone professional group both reflected this general perspective concerning the system's as yet unrealized potential.

The comments of those experienced with the system, however, saw Telidon as a resource to be used selectively by the teacher rather than as a substitute for the teacher or as a direct provider of educational services. The human element in teaching was seen as being too important and this concern underlies both the positive, but with limitations comments and the negative comments. Education is more than pages of information, the respondents are saying, and the Francophone users are even more adamant than others in stressing the human element.

A theme underlying the user's comments and being more fully expressed in the professionals comments were the technological limitations / technological opportunities of the system. A number of the negative comments pointed to problems with indexing, visual comfort, speed of display or (for the Francophone professionals) the fact that the system was not an on-line distributed processing system. Only the Anglophone professionals highlighted the unique opportunities presented by Telidon's computer technology.

Finally, the comments of the youth group are particularly interesting. They as a group have actually learned something from Telidon (simple programming in Basic using a Cybershare package) and are quite positive for its use in other areas.

### 4.3 Teleshopping

#### 4.3.1 Findings

Teleshopping is one of the main applications anticipated for an interactive videotex service. At the moment on the system there is some commercial information, some comparative price information and a limited opportunity for teleshopping. While a number of the participants had used the system for obtaining information for shopping, few reported themselves as having actually purchased anything using the system.

Overall, while teleshopping was seen as being suitable for a variety of possible items as well as appropriate for information related to shopping, many respondents indicated shortcomings of the system which would inhibit its use for certain items at least.

The Elie youth respondents were of mixed minds, they stressed both the convenience and the limitations. On the convenience side:

- "It saves a trip to Winnipeg";
- "You can put it on at home and look through what they've got";
- "I get sore feet walking";
- "They describe the object pretty good. They show a picture of it beside the description";

- "I'd buy appliances. If they don't work you can always send them back";
- "You can find your stuff faster than through catalogues".

On the negative side they indicated how shopping by Telidon wouldn't allow for the full range of experiences of the items to be purchased:

- "I wouldn't buy a used car because you couldn't see the rust spots and where it was all puttied up."
- "My mom likes to feel everything. She has to have a good look at things like meat. She has to make sure there's not too much fat."
- "You would have to know your exact size for clothes".
- "Out of the computer you really don't know what you are getting."

Other concerns were that "the selection would be narrowed down", i.e. specialty items wouldn't appear; and that delivery might be slow - "Who knows how long it would be before you got what you ordered."

The Elie adults stressed its possible use "for shut-ins or the elderly. People who can't get out."

- "I would use it to shop for groceries. Like a box of cornflakes is just a box of cornflakes."



- "You can compare prices."

A typical comment was:

- "If I was buying a car I wouldn't really buy the car over the system, but I'd narrow it down with all the information and decide what kind of car I'd like."

Related to this was the comment that "If you wanted to buy a sweater (a personal item) its just not the same," and that "it is OK only if you happen to want just that type of item."

The comments of the Toronto male participants focussed also on the convenience:

- "Anything that saved me from having to go near a department store I'd be tempted to use - you can wait for an hour at the counter and then discover that they don't have the damn thing."
- "I'd use it for evening shopping, if it was combined with delivery like ordering a pizza."

On the type of product which could be purchased in this way: - "if you're buying white sugar there's not a hell of a lot of difference between one sack and another".

- "For staples where there is not a lot of difference I'd be inclined to use it."
- "I'd buy bulk whatever is on sale. If I could do that using the system and I knew the brands and it could be delivered to my house. Terrific."
- "great for staple shopping or for standard items like an electric can opener."
- "I would use it to order airline tickets."

The greatest number of comments, however, focussed on its use for obtaining information preparatory to shopping:

- "last week the corner supermarket was selling sugar for \$.95, the rest for \$1.50, so comparative shopping is very useful. There are a number of things I'd buy if it gave me comparative prices."
- ""the problem with the newspaper is that I don't have the time to go to one store for one thing and to another for something else."
- "use it for information about shopping location of travel agents, flights and places in Mexico, hotel prices and packages and the whole thing. We didn't actually buy anything but all I had to do was phone up the next day and just make the reservation."
- "good for weekly specials."

A few saw some specific advantages: "to the handicapped", "it would tell you how much you've spent, remind you about missing items."

The negative comments again concentrated on the lack of sensory contact with the goods:

- "I wouldn't buy anything over it. I like to take a look at the actual article - be able to see, feel and touch its quality and make decisions based on that rather than a photograph that's a poor indication of the product."
- "The kinds of things you buy in department stores are by and large the kinds of things you want to see."
- "you want to try clothes on to see if they fit"
- "you can't see colours and textures"
- "Some colours can't be reproduced."
- "I like to see what I'm buying. I like to feel it and look and sense what it is."
- "I have to see the stuff and try it on or try it out."
- "I like to touch the thing."
- "I like to see what I'm buying. I like to feel it and look and sense what it is."
- "I have to see the stuff and try it on or try it out."
- "I like to touch the thing."

Others were concerned about: "the 'hassle' of picking it up because it won't be delivered", - "having only a limited number of shopping sources in the system", - "the time it takes to have something delivered - it depends on how urgently you need it".

Still others were concerned about the security aspects - "the numeric password could easily be broken" or the limitations of the current systems - "there isn't enough there to use right now", - "the way the data base is structured you can't go in to find an electric can opener at under \$15, you have to go through one page after the other. Its not a vehicle for browsing like a catalogue" - "I have fear of the situation when you get to a certain point and you want to flip back three pages and you get lost and you have to go right back to the beginning and work your way through again."

Finally several but not many commented on the social aspects of shopping. "I kind of enjoy the supermarket", and "I would rather go out on a Saturday and look around."

Interestingly, the favorable comments by Toronto females similarly focus on the convenience ("parking is a hassle") and the nature of the products which would be purchased - "things I buy in bulk like pet food", and on the comparative shopping possibilities. The negative comments similarly were concerned with the sensory contact with the items to be purchased - "I like to see what I'm buying. I like to touch sheets" and the social

element of shopping - "I've got a nice corner store I love", "shopping is a social thing".

The comments of the control group were similar to the other groups although in general fewer problems were noted and it was seen more readily as an alternative to shopping.

- "I don't like shopping so shopping at home is something I would love."
- "I hate shopping for heavy things. I have a bad back."
- "You could take your time shopping and really get what you want more easily than in a store where there is a crowd and you get pushed around."

In addition the possibilities for comparative shopping and its usefulness for seniors and invalids was noted. The limitations on the system for this type of activity were also noted:

- "a whole delivery system would have to be set up"
- "I couldn't see putting the Eaton's catalogue on it. The graphics won't sell style or colour."
- "I don't have the patience to sit and read through the pages. I like things with more visual appeal like catalogues."
- "It's not a tool for casual shopping. It's for people who know what they want."

Also one person noted:

- "I enjoy shopping. It serves a social function. I'm outside the house. I'm seeing people and I love being with my wife looking for bargains, handling fruit and vegetables. It's an event and you can't do that through a machine."

Notably the Anglophone professionals saw this as a very viable application and they based this on an assessment of the probable convenience of the system.

- "People want shopping without hassle."
- "Instant shopping. People want things when they want them."
- "People don't have time to go shopping."

The Francophone women saw the convenience possibilities of Teleshopping.

- "it would be very handy. But maybe the consumer society would suffer. When we don't see something we are not tempted."
- "it could save a lot of steps"
- "we could find out where to go. How many times are we looking for children's slippers when they don't have any."

On the negative side, however, the Francophone women missed the personal function which shopping served for them:



- "Shopping is a diversion."
- "The mall boutiques would suffer."

Also as a Francophone male pointed out: "The security of the system is important otherwise how would we keep adolescents from ordering things."

#### 4.3.2. Observations

Teleshopping is one of the more evident applications. However it is likely that it's development may be hindered by certain of the technical limitations of the system, the continuing desire of the consumer to "experience" the goods before they purchase them and the pleasure which some derive from the shopping activity itself.

Clearly there is a belief that teleshopping will be useful for "convenience" shopping, i.e. shopping for utility items, repetitious shopping, shopping for standard products, and shopping where time is limited. Each of these, however, is subject to individual definition and the degree to which an individual sees one or another aspect of their shopping as "convenience" will vary depending on individual circumstances.

What is less unclear however, is that the provision of background information for shopping, especially for comparative shopping, weekly specials, etc. is seen as being unambiguously useful.

The professionals notably, identified teleshopping with convenience without recognizing the limitations of this. The control group was more positive to the idea of teleshopping than others, perhaps because they have had little direct experience with the practical limitation of the current system.

#### 4.4 Banking

##### 4.4.1 Findings

Overall, the reaction to the use of Telidon for banking applications is mixed. Most groups saw advantages to its use both for financial information and for transactions while recognizing that there were significant potential problems such as security and reliability.

The Elie youth group was the most unequivocally favourable (perhaps because they had the least experience with financial matters). Though they recognize the potential problems they believe them to be resolvable:

- "You wouldn't have to go to the bank";
- "Saves the bank the trouble of sending out statements";
- "It's all computerized already. The human puts it in - if is a mistake it is the human's fault."

The Toronto men are mixed. Positively it is linked with automatic teller machines (ATM's) which many have recently come to use:

- "I would use it. I use the Green machine."

It is seen as a good supplier of information especially information which has to be processed:

- "It is good for mortgage calculations";
- "I shopped around for the best mortgage rate."

The convenience element is the one which is most often stressed:

- "You don't have to stand in line.";
- "Very convenient to do banking at 10 o'clock at night.";
- "Nicer to be able to do it in your own home.";
- "It's a temptation for the convenience.";
- "I would like to not have to stand in line to transfer funds."

The possible use for specific purposes was also noted:

- "It would be useful for paying utility bills.";
- "I would use it for entering passbook, transferring funds, paying bills."

Negatively, the same group was concerned about reliability of the system and of the information:

- "I would have to check to make sure everything was correct"

and up-to-date."

- "I've had a whole lot of problems with the trial. It is unreliable, so I would be frightened about mistakes.";
- "I want to be sure of the validity of the information.";
- "I would be worried that the bank information would be as out of date as the movie information especially my balances. I would be operating on inaccurate information.";
- "There would be the problem of making sure the information was up-to-date.";

Many were concerned about the security aspects of such a system:

- "I would have to feel sure about the security of the transaction. I would have to have reassurance and a good understanding about the security of the system.";
- "I would have to be sure that there was no way to tap into the system.";
- "A fundamental act of confidence would be required. If you don't have that confidence then you would never use it for anything important.";
- "I'm not ready to put my Chargex number into it because I don't know who has access to it.";
- "I would have reservations until I know more or until someone persuades me that it is secure. I'm not willing to assume that it is secure.";

- "Trusting the machine is OK, it is the people surrounding the machine that I'm worried about.";
- "Who's going to see the information? What are the restrictions on seeing it going to be?";
- "Would the tax department have access?";
- "I worry about the security of the telephone line during transmission.";
- "I would want exceptionally high quality reassurances about confidentiality.";
- "What about someone punching someone else's number by accident? Would need to use cards."

One person mentioned that they went to the bank as a "social visit".

The Toronto women indicated a more negative attitude towards using it for banking but a favourable attitude in using it for financial information.

- "I wouldn't use it for banking. Banking is too personal to trust to a machine."
- "I'm a bookkeeper and I can keep my own accounts. I've dealt with a lot of computers and trying to get back a \$1.00 overcharge is like pulling teeth and I don't want my bank account like that."
- "I wouldn't use it for banking. I wouldn't trust it."

- "Personally, I don't want it. I couldn't deposit or take out money. Accidents happen and banking is something that is private."
- "I find the financial information handy especially the mortgage rates."
- "I would use it to be educated about financial matters."

The adults in Elie were mixed - some would use it for its convenience, others wouldn't, although they could see that others might.

- "I work in the city. I can only bank once a month because I have to take time off work."
- "I'm not ready for it. The next generation will accept it more readily."
- "I'm past that stage. It's OK for the next generation, they are growing up with it and they will accept it."

Interestingly, there was no concern about the security aspects although they were mentioned:

- "In the bank here, everybody knows everybody anyway. There is no guarantee that financial matters are private anyway.";
- "There would still be personnel to check if there was a mistake."



The women's group in Cap Rouge was strongly favourable to telebanking commenting especially on its convenience:

- "we lose a lot of time going to the bank";
- "I would be glad not to have to go to the bank anymore.";
- "we wouldn't have to use the post (for bill paying)";
- "It will save us time. The banking procedure is a chore."

Others were prepared to accept it as inevitable:

- "It is an adaptation we will have to make because this is where we are heading anyway. I imagine that it will become obligatory.";
- "Whether we like it or not we will have to deal with it."

Fear was expressed, however, of a "robotized society" - a society where everything works by number.

The men's group in Cap Rouge indicated that they would accept telebanking because that is the unalterable trend:

- "The bank manager - it is not my face he wants to see; it is my bills paid with regularity."
- "One day there will be no money, everyone will have a card."
- "We are going towards a plastic society."

- "The Royal Bank now has a card that gives instant cash. They must have worked out a security system for that."

On the negative side the men feared a loss of personal contact between himself and the banker:

- "Who will evaluate me? Who will say how much I am worth. A computer can't evaluate me on my potential. Now I am established but people who have never borrowed before - they will have a problem.";
- "There is something personal between the client and the bank manager which should not be lost."

Others were concerned about "security", the loss of social contact and the absence of paper based receipts.

- "The big problem will be security. No matter what codes are used it is always possible to break these codes."
- "Going to the bank makes you go out and meet people."
- "There will be no receipts and no paper. If you make a cheque now and are accused of not paying you can always retrace the cheque."

The control group had a similar response to the Toronto groups. A number mentioned the security and reliability problems:

- "I have problems with the banks now."
- "What happens if the system goes down in mid-transaction?"
- "Privacy - ensuring privacy is the main problem. Making sure no one has access to personal profiles of activities."
- "and the float."

Others mentioned that they would use such a system for transactions and for information primarily for its convenience.

Both professional groups saw Telebanking as a good application and as a

way of getting a mass market distribution of the system. The French group, however, felt that the current Telidon system was primarily a graphics system and as such a mass market banking application might not be the most appropriate. The English group identified some of the concerns and saw telebanking as being somewhat in the future. The English group identified "a chicken and egg problem" - there can be no cheap terminals useable for telebanking without a mass market and there can be no mass market without broadly based applications such as telebanking. Some members of the French professional group talked about the necessity of quickly developing a cheap universal home terminal that could be used interchangeably for all sorts of applications, including banking.

#### 4.4.2 Observations

The response to the use of Telidon for the delivery of banking services and information was apparently placed in the overall context of "computer" banking rather than Telidon banking. Thus the linking of Telidon banking with ATMs (automatic teller machines), whose major use as a cash dispenser would not foreseeably be possible using Telidon.

Thus comments have to be seen as reflective of the underlying dimensions governing responses to computers and financial services. There would appear to be several such dimensions - convenience - saving time in line-ups (note the special strength of this among the Francophone women); the loss of a tangible relationship with money (especially the Anglophone women's group) - no receipts, loss of control over distribution of funds, loss of face-to-face relation with banker; especially for urban Anglophones a concern with whether the system might not have sufficient safeguards to protect their interests thus whether the system was in fact secure even though it might be presented as being secure; and whether there might not be unauthorized access to information concerning the individual whether by other individuals, marketing agencies, governments, etc. even though there were supposed safeguards.

Notably the Francophone user groups respond to these changes with resignation and misgivings - it is inevitable; while the Anglophone user and professional groups will reject utilization or demand assurances and

reassurances from the responsible authorities while still distrusting them as being potentially the source of the danger.

Again the users of the system regard this application with some misgivings given the limitations experienced with their trial Telidon system - information is out of date, the system is unreliable, those in authority with the system have not carried through with commitments and so on. The use of the system for information about banking rather than for banking transactions seems to be more generally acceptable and indicates an underlying fear of a loss of contact with tangible things such as - paper money, paper receipts, bank managers, etc. People appear to be somewhat reluctant to commit themselves to "abstract" systems such as Telidon.

#### 4.5 Voting

##### 4.5.1 Findings

Suggestions have been made that interactive videotex systems could be used for voting especially for on-going special issue referenda or polling.

In fact there was considerable support for this application. The Elie adults thought that it might improve the quality of the voting decision:

- "We could get the names and the pros and cons of what they were for an against. You could have it in front of you at home as you vote."

The convenience was also mentioned:

- "not have to go out and hear guys speak"
- "save a lot of walking and driving"
- "maybe get more votes"

The Toronto men also appeared to favour the application although there was concern expressed about the security aspects.

- "Yes hinderd only by security"
- "I would use it if I was assured it was confidential"

- "Yes, so long as it was secure and someone could ensure that only the authorized were allowed to vote."

Also some saw it as perhaps changing the nature of democratic decision making for the better:

- "It would be nice to take some decisions out of the hands of politicians"
- "Everybody could contribute as through a poll."

On the negative side there was concern for the secrecy of the ballot "Big Brother is watching who casts the vote" and also concern by some who did not favor referenda:

- "there would be the possibility of moving to referenda style democracy. That worries me."
- "Government by opinion poll is scary."

The Toronto women were generally opposed to this application.

- "It would be okay for opinion polls but when I vote I like it to be very private and secret."
- "I have little confidence in government. I'd want a lot of provisions so no one would know how I've voted."
- "a referenda democracy would need a benign dictatorship otherwise there would be chaos."

- "it wouldn't be secret enough. A wife wouldn't want to show her husband how she voted."

On the positive side it was indicated that it would be "good" for people who are sick or elderly."

The Francophone women didn't see this as a likely application in the near future, at least not until everyone had a terminal.

The control group generally favoured the application indicating that it would encourage "participation". It was also seen as being useful for public opinion polling. Also "people would be a little more involved. There would be more feeling of control. It would be better than voting every three years."

Technical concerns of security, authorization and universality of access concerned the control group however.

- "How would you make sure that everybody has a terminal."

The Anglophone professional group mostly saw the problems with the application and felt that the politicians would be unlikely to accept it.

- "undoubtedly someone would identify who voted for whom. It would be more sensitive than banking."



- "How would one identify those allowed to vote."
- (fem) - "How could you guarantee that the person in the home is free to vote as they choose."

In the French professional group, the limited American experience with electronic voting where the rate of voting drastically fell as a consequence, was cited as an indication of the fear people would have of such systems.

#### 4.5.2 Observation

This application precipitated significant differences of opinion. The Elie group and the Toronto men's group both saw significant advantages while the Toronto women's group and the Toronto and Montreal professional groups saw the difficulties and the importance of public trust in the system and with public officials before the system could be implemented.

The women's group appears to be more distrustful of the technology and of authorities, while the professional groups recognize the current and future technical limitations on the system for this application. The Elie and men's groups see the convenience and the enlargement of democracy as significant "pluses" for the system.

## 4.6 Health Care

### 4.6.1 Findings

Telidon is seen as a potentially valuable source of health care related information. There is considerable and general support for its use as a type of medical encyclopedia and for the provision of health information currently available in brochures. Its use in interactive applications such as self-diagnosis, or self-medication, is much more contentious - supported by some, strongly opposed by others. A possible emergency alert use is also suggested.

The group most favouring the health care applications of Telidon was the Toronto females. They saw its possible use in "drug information programs", "nutrition education especially for the elderly", "information on drug side effects", "information for mothers with small children", "information on distress centres and emergency numbers". In addition it was suggested:

- "there is a huge problem with the elderly. Initial diagnostic needs of the elderly would be satisfied without the cost of a doctor's visit. Provisional treatments.";
- "just tap in symptoms and the machine would give suggestions for treatment. There would be resistance from the medical

profession but providing medical care for all those elderly will be very expensive."

The women in Cap Rouge also indicated its possible usefulness in providing "anatomical information", "first aid such as poison antidotes", "information for pregnant women" and general health care information. They felt, however, that it "would be dangerous".

- "We would find too many illnesses for ourselves."
- "I am not even for a medical dictionary (in untrained hands)."

The youth group was quite opposed to its health care application identifying health care with doctor's care:

- "It won't replace the doctor because it can't give you pills.";
- "the doctor can do something to help you. The doctor can operate.";
- "the machine can't give you a check-up. You would have to feed in things that you saw but you might not notice things that a doctor would."

However, they see its use in an emergency situation:

- "if you want to find out something quick."

The Elie adult group is generally negative indicating not only that "it wouldn't replace a nurse or doctor" but also that it might not even usefully provide health care information:

- "It wouldn't prepare you like a St. John's Ambulance course where you can see the film. A guy bleeding to death on Telidon doesn't look as dramatic. You would react differently.";
- "I don't know if I'd take it word-for-word."
- "If there's a guy drowning you wouldn't run to your Telidon."

It might, however, have some uses:

- "It's like having a family medical book. You check it over and if you're not too sure you go to the doctor.";
- "for things like poisoning or frost bite it has good treatments.";
- "I can see using Telidon in the wilderness where they're cut off from medical care."

The Toronto men's respondents can see using Telidon for information purposes - "general information", "general reference", "Dr. Spock type things - reassurance and simple advice", "first aid", "health tips

available in books", or "Ministry of Health type brochures". They cannot see using it for other types of more active uses:

- "I wouldn't use it to diagnose any kind of illness.";
- "I wouldn't want it to tell me what to do.";
- "A lot of mistakes could be made. It could be dangerous.";
- "If you gave the machine wrong information you would get a wrong diagnosis.";
- "I can't see self-diagnosis. If you are sick you don't want empathy from a machine no matter how well programmed. You would want a personal diagnosis."

Even emergency use is questionable:

- "It would take too long in an emergency. A person could expire before you found what you were looking for.";
- "if you went to switch on your T.V., then call up Telidon it would be too late if you were looking for an emergency number."

And there were other concerns:

- "Who would have access to the information that I might provide."

- "Make sure the information is more up-to-date than the movie information."

The control group was highly favourable towards Telidon's use in a variety of medical information areas including "first aid and emergency service phone numbers", "service listings and information", "dictionaries" and "health and nutrition guides". In addition they saw several possible interactive applications:

- "sending calls for special kinds of blood, based on a blood type data bank";
- "mother with child with high fever. She could take the child to hospital emergency or get enough information to react correctly at home.";
- "poison control hotline".

The only concern expressed was for the security of health records.

The Toronto professionals were also quite positive, linking possible service delivery applications to "the trend to self-care", the fact that "upscale Telidon users don't have time to go to the doctor" and the possible extended needs of "seniors". The concerns expressed were not critical of the use of the system in this way but indicated reasons why such an application might not succeed:

- "Ontario Medical Association lobbying",
- "part of going to the doctor is a social function" and
- "the price is too much for many seniors".

#### 4.6.2 Observations

Telidon's role as a more or less non-interactive provider of health related information is generally supported although with some reservations apparently related to the perceived inadequacies of the current Telidon data bases. Other interactive applications especially self-diagnosis, are seen with considerably more suspicion. Again the professionals and the controls were more favourable concerning Telidon's possible use in this area than were the users. Possible uses in emergency situations were mentioned but the technical limitation of the current system mitigated against any general reliance on the system in this area.

## 4.7 Government Information

### 4.7.1 Findings

The delivery of government information was seen as being a useful application of Telidon by most discussants.

- "The visual presentation is good."
- "You would have it when you needed it."
- "If we had a question on agriculture or anything else we could get an answer right away."
- "In a lot of cases people don't know where to go and get information."
- "It could help people to do their income taxes."
- "I used Cantel to get information on jobs."
- "It could tell you how to get more information."

The control group especially saw it as being useful in this area:

- "this is the right vehicle for transmitting government information";
- "lots of information in brochures you could do on a system like that. It would be more useful than putting an advertisement in the middle of the papers.";
- "Lots of brochures only cover half an area and another



department knows the other half. Telidon would allow you to put it together."

The negative comments refer in general to the government information currently available on the data base:

- "I've never used the stuff that's on there now."
- "The information you want from government they don't give you."
- "I've never used it, but I've seen it. It doesn't interest me."
- "How many people are interested in accessing Statistics Canada?"

Other comments included general opposition to videotex-based information:

- "I prefer to read" (presumably paper-based text);
- "Passively receiving government information is boring."

A control group discussant made this comment:

- "I'm afraid of it becoming a plaything for bureaucracies. Bureaucrats only see narrow self-interested uses for it."

The Toronto Videotex professionals had several interesting comments:

- "There would be lots of government information if governments were willing to pay for it. But just as people don't look at pamphlets much, I don't think people will go through government information on videotex. Even less on videotex because it comes across drier and less interesting on videotex than in pamphlets.";
- "I think government information is deadly dull. Especially the Cantel data base. It's all organized in a very civil servant sort of way.";
- "Government information is coming down to putting the Minister and Deputy Minister on the screen."

For some members of the French professional group, allowing government information or a portion of the budget allotted to government information to be placed on Telidon, would enable private industry to build a viable Telidon user base to which other commercial applications could be added.

#### 4.7.2 Observations

The use of Telidon as an efficient means for the delivery of certain kinds of information is implied by the above comments. There is no pressing urgency nor demand for the information nor are there specific problems seen with using the medium for this purpose. It is seen as a passive information resource or utility - available on those infrequent

occasions when the government information is needed rather than as a medium with powerful interactive capabilities. It would evidently enhance public access to and thus utilization of government information.

#### 4.8 Games

##### 4.8.1 Findings

The widespread experience with video games appears to have provided the framework for the discussion of games on Telidon. The youth group used the games quite frequently but found them inadequate because "you don't get action or movement. They are just strategy games". The Toronto men indicated that Telidon was "not good for games. It can't compete with home video".

Women in both Toronto and Cap Rouge did not indicate any interest in the games at all. In Cap Rouge it was because "they didn't have the time". Off the record, at the end of the session, they said games "were a good passtime only for men and children".

In all three locations, adult males indicated that they played the games with their children and that they enjoyed this. Overall, however, the games were seen by the adults as something for children or to be done with children and/or something good for children.

- "I play some games. I spend quite a lot of time playing with the kids."
- "Lately the kids have been playing more than we do."
- "The kids always ask you to play with them and you can't

always refuse."

- "The games make the kids think. That's good."
- "The kids catch on real fast. They know the computer by heart."

Interestingly, the control group was critical of the use of games on Telidon:

- "If we're investing that kind of money (in Telidon), I hope it's not for recreation.";
- "Games, unfortunately, are going to be the main use.";
- "People will be most interested in games and leisure things. but there is already too much violent war games."

The Anglophone professionals were much more positive concerning Telidon and games than were the users:

- "even business customers use games on Prestel";
- "I do my demos and at the end of the demos everybody sits there to play the games";
- "Games are the most popular thing especially with the 8 - 12 year olds."

#### 4.8.2 Observations

It would appear that Telidon games are being judged against the home video games and found wanting especially by the youthful users. Adults may use the games but they appear to be somewhat embarrassed to admit doing so ("I only do it with my kids") and find them boring after they have mastered the rules. This would suggest that the apparent optimism of the professionals that games may be a means of boosting a commercial market for Telidon may not be totally warranted. Especially, this may be the case in the light of the control groups' evident distaste for the expenditure of Telidon-related funds for "recreational" purposes.

Interestingly, apart from helping their children with the games, women did not report spending time using Telidon for games, suggesting that Telidon had not as yet found a way of being used for diversion by women.

## 5. ISSUES

### 5.1 Introduction

Our primary concern in these discussions was to determine the reactions of actual system users to some of the issues which Telidon professionals and especially those concerned with the social impacts and social policy aspects of the system had identified as potentially being of importance.

It will readily be realized that even though many of the current system users might be said to be directly experiencing a future where videotex technology is generally available and widely used, in fact their experience of Telidon is partial at best. They have had to cope with a hardware system still not completely debugged; with software widely recognized to be insufficient to many of the demands which are being placed on it; and a data base which is neither fish nor fowl - neither purely experimental nor fully commercial and which, as a consequence, probably misleads its users as much as it indicates what Telidon could or will be.

Nevertheless, this is the best source of information on the "real world" of Telidon usage to which we can have access and so we are attempting to make use of it. The issues which we chose to discuss with the group represent a compilation of issues which have elsewhere been identified as potentially being of importance.

There issues are:

- (a) access - the openness to utilization of the system by potential and interested users;
- (b) privacy - concern for maintaining limited access to information concerning individual system users and system usage;
- (c) reliability - possible information limitations as for example truthfulness, currency, and accuracy. (Also taken in some cases to refer to the mechanical "reliability" of the system.);
- (d) infomercials - a blurring of the lines between information and commercial messages;
- (e) diversity of information (and information providers);
- (f) vulnerability/dependency of system users on continued use of the system;
- (g) unemployment - effects of Telidon and of "computerization" in
- (h) social isolation/participation resulting from widespread use of Telidon or computer communication in general;
- (i) computerization of culture - the general integration of computer use into all aspects of society and daily life.



## 5.2 Access

### 5.2.1 Findings

There was a clear division of opinion between those who saw Telidon as potentially providing a basic public service to which all should have access; and those who felt that distribution should be determined by the marketplace.

The Toronto males who supported broad public access said:

- "Information should be available to everybody. One of the dangers is that you end up with people being information poor and people who can't afford \$30/month not being able to make use of any of the wonderful things that Telidon might provide. Maybe Telidon should be available in the library or some other place where everybody will have access."
- "It should be subsidized because it will be providing services - voting, aid to the handicapped."
- "If you want to use it for voting you will have to have general access. Or else you only can vote if you can pay."
- "It depends on what you put on it. People who are not able to use the system will be left in the backwoods and it's not fair. Should be a two tier system. If you want certain types of information, you have to pay. If it expands, government will have to take a hand."

On the other side of the argument are those who oppose any form of subsidy:

- "In Canada there is always less than total accessibility. It is the marketplace."
- "Let the marketplace legislate it."
- "I don't think government should subsidize the spread of Telidon. The government is spending enough money already. I think the market forces should try and get it going - charge a price and make a profit."
- "It should definitely not be subsidized. We don't need any more of that."

The French men's group was similarly divided and with the addition of a significant concern for the technical accessibility of the system, i.e. the key word and indexing systems:

- "We should have easier access. Now one must undertake a whole research process before accessing."
- "There is something wrong if we need a lexicon to access a system which should give us information."
- "It should be administered by private enterprise but accessible to everyone because private management is better than government management. The government could subsidize it to make it accessible."
- "It should be for everyone. I don't see that there should be a privileged class."

- "it can't be a strictly social service offered by the government to everyone. We don't have the budgets for that."

In general the control group was less favorable to guaranteed access:

- "There shouldn't be a subsidy. Other things are more important."
- "If people want something they'll get it."

The Francophone professional group expressed an interesting range of opinion:

- "If the government wants to advance Telidon, the government will have to encourage private enterprise to build more and more networks using government information. I.P.s can add to these data banks. Access could be available now."
- "I went to see a Telidon display at a public library. I asked people there if they needed the information they were getting. They said they could never find information there - they simply wanted to see the pictures. The tree structure - confusing, awkward. I don't know if all the population had access to all the government information whether that would ensure the success of Telidon."
- "If 5,000 mechanics had a terminal in their home they would be able to pay for their pages. But telling the the Bay or Eatons we have 82 terminals in Cap Rouge - they won't invest in that."

- "For me access is the ease with which information can be retrieved. One aspect of access is availability; - second is affordable price. If the decoder was \$5, you would have market penetration of 100%."
- "On the one hand we are looking for commercial applications so that I.P.'s such as the Bay etc. will finance it. But we don't have the vehicle (terminal) for it. The government should take a percentage of their information budgets to put it on Telidon. At the moment only government can finance such projects."
- "Government information is not free - the public pays."
- "We should aim for smaller publics who need Telidon."
- "Should aim for a public who will save money by using Telidon."
- "Businessmen will use it if it helps them make money. Must find the specificity of Telidon. Haven't found qualities of system to sell it well."
- "I think the Canadian government should make a choice - public - or specialized users. With 2,500 veterinarians in Quebec - those guys have the means to make it work."
- "We should forget the home use - when the other computers (Apple etc.) will connect with Telidon, then we can talk of teleshopping, etc."
- "Important to make Telidon a system for the general public - otherwise a failure. We are working on simplifying Telidon to achieve that (Videotron). Telidon more technological sophisticated than it need by - don't need 32,000 colours, etc."

### 5.2.2 Observations

The individuals in the groups were divided between those who believed that for one reason or another the government should ensure the widest possible access to a system like Telidon because of the importance of certain of the services which might be offered, and those who believed that it should be left unsubsidized and to the marketplace to determine access to the system. No clear trend emerged to explain the basis for individual opinion in this area.

The French professional group saw access almost completely as a marketing issue, i.e. how to ensure that the system was accessible to the widest audience both technically and in cost. This it was felt would be the only way to ensure the commercial success of the system.

### 5.3 Privacy

#### 5.3.1 Findings

The issue of control over and access to personal information or "privacy" is one which is widely discussed with respect to Telidon. It was seen as a significant issue in our group discussions as well.

The issue however did not concern the possible threat to personal privacy - this was almost taken for granted. The issue was rather whether such a threat mattered to the individual and if it did matter, what if anything could be done.

The Elie Youth Group indicated overwhelmingly that it "doesn't matter to me."

The Elie adults indicated that:

- "You don't have to put anything on it that you don't want to but I guess it could come that you would have to."
- "I would never use it anyway so it's no problem."

The Toronto groups however indicated that it could be used for invasions of privacy by commercial or government interests:

- "the information would be extremely useful from a marketing point of view"

- "Within government, stealing of information concerns me. Unless they have locks and systems so that there is no spillover or exchange I would be very concerned. I don't have much confidence in the government and I'm not sure if within the industry if Telidon marketers won't have a vested interest. I think it is up to me to keep it as confidential as possible."
- "I think the records should self-destruct. Only the people you are dealing with should be allowed to cross-reference anything."
- "I come from the U.S. I remember the McCarthy years. I don't trust the coming together of too much information in one place."

Others felt it would be possible to control possible invasions of privacy either technically or by regulatory means:

- "Safeguards would be imposed on the system to combat the problem."
- "You could have a citizen's group assisted by government money to make sure they do a good job like a Telidon user's council."

Other were simply resigned:

- "Government and business already have access to vast amounts of information on private individuals so maybe we shouldn't

get too hung up on it. If they want to find out, they'll find out."

- "I think it is up to the individual. If you want to do your banking on it, someone might find out the information. That's the risk you take."

Similarly, the Francophone women discussants believed that serious invasions of privacy were possible, but disagreed as to whether anything could be done about them:

- "It's a powerful tool that could be dangerous. How it will be used we don't know."
- "Private life is not private anymore. They know what we eat, how we live and so on."
- "The government has a file on everyone."
- "There are more and more market studies. They already know it all."
- "I wonder what more they could want to know on our private lives."
- "If there were laws there would always be ways around them."
- "Those who have things to hide are more threatened by these systems."

The Francophone professionals recognized that privacy may be an issue but indicated that it would be up to the service providers to regulate this:



- "The problem of privacy arises with the commercialization of Telidon. To the extent that Telidon is linked to computers, it is also linked to the invasion of privacy."
- "It is the responsibility of the I.P.'s to ensure the protection of privacy."
- "Industry will develop norms. Government will need to intervene only if these norms are not rigorous enough to protect privacy."

The control group saw privacy as a major issue:

- "Privacy is a major issue even for a one-way service. Can anything computerized be safeguarded? Maybe we have reached the point where we simply can't use computers for certain things."
- "I would not trust my government with it. It would be a political advantage to any party in power and they might misuse it. It has happened in other countries. I'm concerned but I don't know what the answer is."
- "We will have to limit ourselves in the type of information that is going in."

#### 5.3.2 Observations

The more worldly of the groups, the Toronto men, the professionals and the control group, were the most concerned about possible invasions of privacy.

The others, the Elie youth and adults groups and the Francophone women, were aware of the possible invasions of privacy but for the most part felt that it was of little importance to them since they "had nothing to hide".

Interestingly, the former groups were suspicious both of government and of industry as possibly using private information for their own purposes. Response to the possible problems ranged from resignation to calls for citizen's councils. Only the professional group was willing to let industry or government regulate in this area. The idea of self- censorship or self-limiting of information going into the system was also expressed.

## 5.4 Reliability

### 5.4.1 Findings

The discussants were asked to comment on the reliability of the information as a subject of concern. The issue of reliability was inevitably placed in the context of the infrequent updating of information which was identified as a problem particularly for the Toronto trial.

Several points of view emerged. Some felt that it was not a problem or at least no more significant for videotex than for other media. This was especially prevalent among the Elie group who believed that whatever problem might occur would be self corrected:

- "It doesn't matter."
- "It's like anything else. You don't know if it is true or not. I don't worry and just take it for granted."
- "If there were enough specialists at home base it would be reliable."
- "Unreliability would be spread by word of mouth and the information would be corrected."
- "It's like writing a book. There is always somebody who checks it out. You don't just write a book and pass it on, so I'm sure the information would be correct before (it was put on the system)."

The Toronto male group identified it as a problem but felt overall that the market would ultimately lead to correction:

- "Up to date information is a big problem. The date should be indicated on all information."
- "The important things is that the information is current."
- "In a market situation if the information providers aren't on their toes they will fall behind."
- "The marketplace has to discipline. If you are upset about advertising you won't buy his product."
- "If the I.P.'s realize they aren't getting any return on their investment, they will drop a poor presentation."

A related theme emerged: this was the feeling that although there may be a problem, the respondents were unclear how or who should respond to it. Others felt that there should be regulation whether by the industry or government:

- "people putting information on should be responsible"
- "there should be regulations concerning false advertising like in newspapers"
- "What is the control on making sure things are kept up to date?"
- "You could ensure reliability if you could sanction those providing poor information or if Vista did that. But would it be done?"
- "How do you complain? Who do you complain to?"

The Toronto women discussants were concerned about safeguarding the public from unfair advertising techniques and implied that this was a government responsibility:

- "The use of the computer for Christian purposes interested me. But what about cults. But if one ideology can present itself democratically all should be able to. It could be a manipulative tool."
- "There will have to be advertising or presentation standards before allowing everybody to use the medium."
- "Someone has to safeguard the public to prevent manipulation for example using subliminal techniques."

The Francophone groups recognized that reliability might be a problem. Some saw this however as part of a larger problem of biased information which the government should regulate:

- "Information is presently biased. Telidon won't worsen the situation. There might need to be mechanisms like the CRTC to control the information."
- "Newspapers are more and more controlled by monopolies. There is no reliability of information and it won't be any different with Telidon. We will have to rely on our judgement."
- "It will surely be regulated as any other form of communication."

The control group was of mixed opinion. Recognizing that this might be a problem there was a strong feeling that neither industry nor government could be completely trusted. Others saw the market forces as the most effective:

- "We can't rely on industry or government. Regulation would need representation from various sectors."
- "Voluntary controls wouldn't work. There would be a need for regulation."
- "I don't see it as a problem. You can access more than one data base so the marketplace will regulate."

#### 5.4.2 Observation

Some interesting differences emerged from the various groups. The Elie Adult group seemed the most accepting (or resigned) and trusting believing that somehow possible problems would work themselves out. The Toronto men discussants saw significant problems but felt that overall, market forces would be the best regulator. The Toronto women were more concerned with the possible manipulative role of information than for its timeliness and thus perhaps were more strongly supportive of formal regulation.

In the matter of reliability the French professional group felt strongly that a code of ethics extending the one presently in use by journalists and advertisers would likely develop and be more appropriate than one legislated by governments.

## 5.5 Infomercials

### 5.5.1 Findings

The subtle mix of information with commercials has been identified as a possible problem area as well as leading to the coining of a new word "infomercials." This was raised as a subject area. Interestingly but perhaps not surprisingly, quite similar patterns of response emerged to that concerning information reliability.

The Elie adult group did not see it as an issue:

- "There would be enough people who could identify the information as wrong and they would tell others. Competition should keep everybody honest."

Similarly, the Toronto men thought that it was not an issue and in some instances that it might be a good thing:

- "Somebody will have to pay to put information into the system. It shouldn't be the government."
- "Educated people can screen out the bias. For the others what difference does it make."
- "It's like a newspaper. I'm not too worried. Most people don't distinguish ads from news anyway. It's not a problem."
- "People can skip what they don't like on Telidon."

- "The same laws as govern false advertising should apply."
- "It would go to offset the cost of operations."

Toronto women on the other hand express considerable concern again with reference to the manipulative possibilities:

- "Yes I'm worried. They like to colour what they say about the items so that I will want them. I want more objective information."
- "What if the subject is washing machines and if all I get is different manufacturers telling me about it. I don't think I'm getting the whole story."
- "It will be the government's responsibility to provide the hardcore information."

The control group overall did not see it as any greater a problem than currently exists:

- "It's not a problem - just run it the way everything else is run."
- "You have the same problem now in newspapers."

The Françophone groups saw it as a potential problem from which they should be protected:

- "There will have to be legislation in the area."
- "It is to our advantage that consumers be protected."



- (Fem)
- "It is a dangerous possibility that we will be manipulated."
  - "We are submerged by advertising... We will need very tight legislation. We can't resist it ourselves."

In some cases however they might be able to protect themselves:

- "People are manipulated, because they are not informed."
- "It will be for us to judge and select - to be vigilant."

The professional group in Montreal, not surprisingly, opted for self-regulation by the industry in this area:

- "It is up to the system operators to establish norms, which information providers must meet, if they want to get on the system."
- "The only way you can regulate the industry is with the system operators and the information providers adopting codes of ethics. You never get just enough government. You always get too much."

#### 5.5.2 Observations

This is one area in which there is a clear difference between men and women. The Toronto men's group did not see this as a problem whereas the women (and the Francophones) saw it as a problem because of a greater

experience on the part of women as being the target of advertising and especially manifestly manipulative advertising. The difference would appear to be in whether the individuals were confident of their own abilities to distinguish information from advertising.

## 5.6 Diversity of Information Providers

### 5.6.1 Findings

Only the Francophone women's group and the two professional groups commented extensively on this issue.

The Francophone women's group saw "diversity" as a control issue - the greater the enforced diversity the greater the likelihood that they would have access to information which may be truly of interest to them:

- "We should be able to go and get information where it is - be it the university, government or the consumer's association."
- "There should be a place for small information." (i.e. local information.)
- "Advertising could bring in the funds to carry community information."
- "Controls and access rules will be needed otherwise large companies with lots of money will be able to monopolize."

Diversity of information resulting from a diversity of information providers is seen as the issue among the Elie youth:

- "You want to know about a lot of things."
- "The information from one company could be pretty boring."
- "As much diversity as possible is desirable and then people make up their own mind."

The two professional groups, Toronto and Montreal, had the most to say on diversity of information providers. Most opposed government involvement in the information providing process:

- "censorship is repugnant"
- "self policing like with the press is best"
- "market forces will look after it"
- "when you have electronic mail everybody is a system operator"
- "There is a dilemma with the diversity of I.P.'s. The more information input into a data bank, the richer the data bank. But the richer the data bank the more difficult and confusing it is to find anything. It raises problems of accessibility."

#### 5.6.2 Observations

It is interesting that only the Francophone women's group, the youth group and the professionals commented on this. Overall, the Francophone women appear to be the least well served by the existing systems. Outside of the formal discussion they indicated that there was little of interest to them on the system. This perhaps explains their concern in this area.

The youth were probably the most active users of the system and they would, of all users, be the most aware of the limitations with the current data base. Of course, the professionals knowing what could develop were aware of the problems but felt they would, with time, be resolved.

## 5.7 Vulnerability

### 5.7.1 Findings

The Toronto men's group most strongly indicated that system vulnerability or dependency was unlikely to be an issue:

- "I don't see it as happening. All the libraries closing down?"
- "As far as addiction goes, there is a button on the keypad that says 'off'."
- "Less danger than that we could get addicted to newspapers or T.V."
- "You only have so many hours of leisure and you are going to watch T.V., and play Atari games with the children."
- "somebody is terribly optimistic in Ottawa if they think the nation will move towards being Telidon addicts."
- "I can flip through the pages of a book. Regular T.V. has life and movement. I don't see it as a problem."
- "It's got a long way to go. So much is competing for attention."

The Cap Rouge men's group on the other hand saw it as a possibly significant issue:

- "It is a big creator of dependency. If it continues like that we will certainly be dependent. A guy gets a licence to sell Pay T.V. and the laws are changed to help him."
- "Those who bought Pay T.V. now have to buy another convertor."
- "we are all becoming dependent on large impersonal and sometimes stupid computerized systems."
- "will a dependency on these systems be imposed or will we have a choice?"

#### 5.7.2 Observations

One should note that the Anglophone men's group strongly rejected the possibility of dependency on the system pointing to the fact that Telidon was only one among a variety of competing media. The Francophone men's group, however, saw how technology could create dependencies and anticipated that Teldion as other systems could have this effect. The difference may be a difference in perception concerning the degree to which the individual is or could be dependent on systems outside of their direct control. The Anglophones do not recognize this as likely while the Francophones believe that with respect to technology at least it is already occurring.

## 5.8 Employment

### 5.8.1 Findings

In contrast to the opinion of most experts, the field trial participants did not see Telidon or computers in general as an overall employment threat. Rather they saw that new jobs would be created just as old jobs were lost.

In Toronto the groups responded as follows:

- "somebody has to make terminals and all the materials that go on them"
- "the technologies will create jobs and improve productivity"
- "It will work itself through."
- "Cottage industries will develop. People working at home."
- "New jobs will be opened up."

Also it was felt it would improve the labour marketplace and in this way positively affect employment:

- "it will show what jobs are available and what they pay"
- "People will be able to job shop."

The Elie Adults has similar opinions:

- "It won't replace people. Just become part of living."
- "I think the only problem is they're not retraining people fast enough. People should be paid to go to school and retrain."

And the Elie Youth:

- "People are going into computers to get jobs."
- "People put out of jobs can take a course in computers."
- "Telidon can't do very much."
- "Someone still has to be filling the Telidon orders."

But at least two people (Elie) had direct experience of computer-initiated redundancy:

- "Our company is cutting back mostly clerks and implementing a computerized inventory system."
- "Where I used to work in Winnipeg, they used to do everything by hand and now it's computerized and half a dozen staff are out of a job."

The Francophone groups both men and women similarly recognized that there would be change but did not appear to be pessimistic about society's capacity to adapt:

Women: - "recycling of people will be needed"



- "since more people will have more leisure time, leisure activities will have to be more structured"
- "part time work will be more prevalent"
- "if there is more time there will be more sports"

- Men:
- "you will always need to get your hair cut"
  - "computers make you go faster - I think it will add work rather than take away work"
  - "there will always be a need for personal exchanges"

The control group, on the other hand, was in general quite pessimistic:

- "Kids have gone into computers because of jobs. But they are still having problems."
- "People are being phased out. It's a tragedy."
- "We can't afford to pay people thrown out of work."
- "We could decrease the number of hours worked but how would we pay people."

Others, however, see the change as inevitable:

- "Our definition of work will change."
- "There has always been unemployment. Now it's because of the information society."
- "The transition will be difficult but a balance will come."

The Francophone professional group see the problem as more complex:

- problems of skill obsolescence - "people will lag behind because they can't meet the technological level in which we live"
- the role of international competition - "in the world we live in, if we don't develop we run the risk of being taken over by foreign technologies"
- the benefits of computers - "it will certainly create jobs but at another level which will make people more productive"
- new labour market demands - "new technologies ask for new skills. At the C.B.C. instead of using news room journalists we looked for good communicators."

However, the Anglophone professional group is the most pessimistic of all:

- "There will be a significant displacement of people. How will they earn a living?"
- "There will be a social dislocation."
- "Job security is becoming an issue."
- "The government is still anchored in the industrial age."
- "There will be high unemployment for a long time."
- "There will be more jobs with computers but they will not correspond to the people out of work."

### 5.8.2 Observations

Only three of the groups - the two professional groups and the controls - expressed concern about Telidon or "computer" threats to employment. The others felt that although jobs would be lost, other would be created. It may be that the groups with the most direct experience with the system - the users - were the most likely to be skeptical (or perhaps realistic) about how much effect the sytem might have in the near future.

The three groups with the least direct day to day operating experience may tend to expect a greater impact because (as we have found elsewhere in the analysis) these groups tended to have greater expectations for the success of the system in general and for certain specific application areas where a significant negative employment impact might occur.

## 5.9 Social Isolation

### 5.9.1 Findings

The possibility of increased social isolation as a result of Telidon was not seen as realistic. Only the Elie adult group commented on this extensively and they saw the system as insufficiently engaging for individuals to forego personal contacts:

- (Fem)
- "Not as far as I'm concerned. You like people, you like to visit with people, you have to keep in contact, whether it's shopping or just doing things like this. It's okay for business, I can see that, I can see it for education and everything but social, forget it."
  - "It's like watching T.V. - you get tired of it. It's nice to turn it off once in a while."
  - "Like for games of entertainment you can always have some couples over to play - it would be a cheap evening."
  - "I think, like a wife who's home looking after the kids, if she has a day off to do grocery shopping she might look forward to that, I don't know. Eventually I could do all my business on it and that would be great, it would save me a lot of time. It would maybe eliminate personal contact with my business clients but it would never eliminate my being with friends."

### 5.9.2 Observations

The Elie adult group perhaps of all the groups was the one with the most extensive network of personal contacts. (A major consideration regarding meeting day and time for our session was the various voluntary organizations and organized recreational activities in which the Elie residents were engaged.)

The feeling among most of the groups was that this issue was irrelevant and not worth discussing. Clearly social participation/social isolation was an issue of some interest to Elie residents.

## 5.10 Computerization

### 5.10.1 Findings

We were interested to learn what reactions might be to the overall development of the information society and to computerization. We found overall optimism or at least resigned acceptance of these developments. Reservations had to do with a feeling that the greatest opportunities were for the next generation.

The Toronto men's group commented as follows:

- "As people get older they are less clever at doing things. I'm blundering around in my backspaces and scrolls and all the kids in the world never get lost at all. We can't keep up and use it to its full potential."
- "I feel myself to be a bystander of the computer society. It's exciting to see the younger generation using the computer with less fear than me or my generation. The younger generation seem to be very confident. It is exciting if you always remember that the computer is a tool and nothing to be afraid of. It's nice to see a generation grow up that sees it as a tool and without mystery."
- "The computer society is here and it's going to get better. It is a thrill to have a chance to be in on this."
- "Computers are here. We just have to do the best we can."

The comments of the Toronto women were:

- "It is inevitable so you might as well learn how to use it properly to your benefit. There's no way you're going to stop it."
- "It is exciting and it is also frightening. I fear the social isolation. I don't see any solution."

The Elie adults:

- "It's just a fact of life for the young."
- "When I worked we had computers and anything you wanted to know, you didn't have to ask the next guy, you just went to the computer. It worked good and it didn't take long for anybody to learn either."
- "It's just like when they gave us the Telidon. At first it was strange, now it's nothing."
- "Information would be more accessible to us. We could make our conclusions about things based on that information. It might be good for peace in the world."
- "Right now the news can say anything they want to; this way we could be more informed."

The Francophone groups were also generally optimistic although some concerns were indicated:

Cap Rouge women:

- "It will free us for other things. I love sports, gardening, sewing - I don't have enough time."
- "For men it will be harder to find something to do - they can do home repairs and gardening."

Cap Rouge men:

- "Socially they missed the boat with Telidon. It could help. There are a lot of things I would like to do but I don't have the time to. There are a lot of things that could be put on the system - education, banking, etc. But we are stuck with practical problems. As it is the system is too cumbersome and slow. The technical means would have to be improved. We have a hard time accepting it as it is."
- "The information revolution can be compared to the industrial revolution. It is difficult to anticipate all the ramifications. Those responsible for introducing it have a social responsibility for education and 'conscientisation'."

The control group was also optimistic:

- "I feel it's here. So I like it. I work in it."
- "I'm resigned to it. For other people it's great. For myself I abhor its implications."



- "I'm excited by it. I'm impatient for it to come."
- "It's been around for a number of years. It's no worse than autos or planes. They were feared at first then accepted. It's pretty hard to imagine not having a mechanized society where you can get to someplace by phone or by car. Computerization is no different."

However:

- "Industry now has a new excuse for not meeting deadlines. The system is down."

#### 5.10.2 Observations

In all cases the general trend toward compouterization was seen as inevitable and taken for granted. None opposed it and some welcomed it. The dominant feeling perhaps was resignation - there is nothing we can do about it so we might just as well accept it and adapt as best we can leaving the real involvements to the next generation.

Others and interestingly most strongly, the Francophone women, looked forward to the advantages it would bring especially the time it would save and free individuals from undesirable tasks for more personally rewarding ones.

## 5.11 General Comments on the System

### 5.11.1 User Groups General Comments

The majority of those who made general comments on Telidon said that they were somewhat disappointed with the system. The pattern of response that emerges is one of initial high interest and usage which quickly declined as the information on the system was not updated and as the games were mastered. Some reported having difficulty finding what they wanted on the system, or "getting lost" trying to find the same thing again, etc.

A fair amount of technical difficulty was reported ranging from the system breaking down to picking up a local radio station. Some frustration was manifested, especially in Cap Rouge with the slowness of the field trial operator in attending to these difficulties. There was considerable annoyance with the staleness of much of the information especially in Toronto.

Comments about the physical attributes of the system tended to be critical. It was said that the print was too small, the response time was too slow, the keys were too small on the keypad, and hard to operate, and that bright white script was unpleasant to look at for long periods of time.

Improvements made to the system since the beginning of the trial were noticed and appreciated. The users reported feeling encouraged by the efforts made to improve the system. It was recognized that it was

difficult to keep upgrading the content for such a small sample but many regarded the systems as "operational" and found it lacking because of the limitations of the data base. It is interesting to note that topical, current information was the most valued, hence the importance of updating the information regularly, perhaps indicating the date when it was issued to promote confidence in the system and in information reliability.

Finally, virtually all respondents indicated that they felt privileged to have had the opportunity to be part of a trial. The great majority said that it had been a worthwhile experience for the them and for their families.

#### 5.11.2 English Professional Telidon Group

The English professional group often mentioned the importance of how to market the system. There were divided opinions about whether it was primarily an information medium or an entertainment medium. As an information medium some saw its potential as an archive of all possible kinds of information, while others argued that libraries were better suited for storing static kinds of information. Telidon excels, it was said, in the representation of dynamic information such as bus schedules or time-tables of current events.

An important feature of the videotex system, they believe, is that people can command and touch it. Their feeling is that pushing buttons and seeing the computer respond is more important to potential users than the

information obtained thereby. This would help to explain why presently games are presently the most popular use of the system.

Finally, as with the French professional group, it was concluded that Telidon has yet to find a market niche, which would correspond to its unique display capabilities.

The question of how best to promote the system, by government or industry was also explored. It was pointed out that in Canada there are very few large investors outside of governments. As it now stands most of the funding comes from two levels of government. It was felt that entrepreneurs should be induced to become more involved.

Presently there is a bad hardware problem and a pressing issue of putting content on Telidon which people will want to look at. Both could be resolved with cheap multi-use terminals where a Telidon display protocol is married to a personal computer for \$200 or less. Then the market forces would take over developing attractive uses.

#### 5.11.3 Professionals - Montreal - General Comments about Telidon

The Montreal group met for nearly three hours and throughout their discussion of the various topics themes emerged favouring government sponsorship and stressing the unique potential of Telidon. A consensus developed early in the group that with the existence of universal home terminals, all applications could follow, whether they were banking, games, education, etc.

The problem of developing Telidon for a mass market was defined in terms of a trinity: the user, the information or service provider, and the manufacturer. Which should come first? The manufacturer won't spend money to produce equipment unless there are users to buy it; the system providers (i.e. Bell, Teleglobe, cable) won't invest if there are no users or equipment.

The solution proposed was that the government inject funds to develop a service of at least minimal interest to the public, such that people will buy equipment which will in turn spur the manufacturer, etc. This could be done by encouraging private industry to put up government information, or some part of it, which would create a critical mass to which information providers could add other applications. In the short term, Telidon is likely to be most viable and cost efficient being utilized by closed user groups.

There were repeated comments about how Telidon has been oversold raising undue expectations about the system and promising services that were already offered better and cheaper by other means. The specificity of Telidon, especially its graphic display capabilities, should be emphasized and Telidon should be carefully targeted accordingly.

While Telidon was hailed as a great achievement for the Canadian government, some misgivings were expressed about Canada's lack of success in marketing; Candu was cited as an example. Someone wondered whether Telidon would be our Concorde.

Even though beginner's difficulties were fully aired, the mood of the group was optimistic and eager to get on with full commercialization of the system.

## 6. CONTRASTS

### 6.1 Introduction

We have presented our results and some observations on these results. In the following section we will attempt to draw some more general understanding, and if possible, systematic differences to the technology by contrasting the response of the various groups.

We have already noted the selection procedures for our groups and the possible limitations on representativeness of the participants in certain of our groups. In no sense should the following comments be taken as having "scientific" validity; rather they should be seen as being potentially of "heuristic" interest - assisting in the understanding of complex realities and in providing direction for the more rigorous studies which will come after.

## 6.2 Users - Controls

The control group was selected from those in Toronto who had indicated an interest to Bell in participating in the trial but who had not been allowed to do so. Thus they were a group knowledgeable about but not necessarily experienced with Telidon. The trial participants, on the other hand, were chosen from among the public at large who had responded positively to a request for participation.

Overall, the major difference between controls and users was that the controls were much more optimistic concerning possible Telidon use in a variety of application areas than were the system users. In addition, the controls were more conscious of some of the possible issues arising from Telidon developments than were the trial participants, thus for example, they were keenly aware of the possible privacy implications of Telidon and recognized that access questions could be of concern.

The control group were clearly more sophisticated in their response to the system and its implications than were the users. They were a self-selected group and had evidently taken the trouble to familiarize themselves with the system and its possibilities.

The contrast between they and the users is thus revealing. Users recognize the system's limits and are easily disillusioned both with the system currently and with its future potential. Those with a keener interest (who may form a significant portion of the initial public market for the system)



### 6.3 Anglophone - Francophone

It was perhaps surprising that there were no overwhelming differences in response as between French and English, however there were some differences. The English tended on the whole to look to the market as the means for resolving questions such as information reliability and accessibility while the French expected that government or industry would take regulatory or other initiatives in problem areas.

The French participants tended to accept the system and many of its applications and the problems which may arise more with resignation than with eager anticipation, i.e. it would probably come whether it was desired or not, and overall it would not be a bad thing. Anglophone respondents tended to see Telidon as succeeding or failing depending on its reception in the marketplace and that overall that was the best approach towards it.

With respect to the issues presented by Telidon, again Francophones seemed to feel more at risk from various sources especially large corporate forces than do the Anglophones and they look more readily to government for assistance and protection. There is also overall a stronger rejection by Francophones than Anglophones of the "impersonality" of services being provided by computer systems. Part of the concern with big corporate forces and computer systems ("they") is probably related to their perceived impersonality.

Overall however, the Francophone group was optimistic about a computerized future as were the Anglophones. For the Francophones, whatever problems there would be would be resolved and overall computers would make life easier and better for all, or perhaps they were more ready to accept and live with these problems than the Anglophones were. Anglophones were somewhat more pessimistic about whether such problems as system privacy, system reliability and unemployment would readily be resolved.

#### 6.4 Male - Female

As we have already noted, our intention to have a specifically female and a specifically male group in Toronto was not successful. We were able, however, to identify and note the female and the male voices from the Toronto groups. In compiling the comments, we attempted to compile male comments and female comments separately. Whether attitudes specific to females might have emerged more strongly from a single sex group rather than groups where women were in a minority position cannot be known.

Inevitably women tended to see possible applications in areas of particular interest to them as for example maternal or child care matters, nutrition and so on. Some did say that Telidon was not of much interest to housewives. Overall, women welcomed the anticipated possibility of using Telidon to carry out a number of routine tasks.

Women perhaps more than men indicated a concern regarding the impersonality of the system - "Human interaction in education is very important." There is also a theme in a number of the responses which suggests a concern that the system or computerization will invade the "personal" sphere. This sphere is defined differently for different respondents but some saw voting as an essentially "private" activity, others banking, other shopping - in each case concern and reluctance was expressed that these be taken over by computers.

Women also appear to be more concerned by the manipulative possibilities of the new media indicating concern regarding information reliability and infomercials to a greater extent than men.

Also women were notably less interested in games than were men. This could be linked to other time-budget studies which indicate that women have less leisure time at their disposal than men.

### 6.5 Adults - Youth

As already indicated our youth group turned out to be exclusively male. Interestingly, the response of the group to a question concerning this was that the girls weren't interested in the system. "All they (the girls) ever do is send soap opera messages to each other." It appears that the girls in Elie are disproportionate users of the messaging capability of the system (according to the boys).

The group indicated a considerable enthusiasm for the system and for many of the applications discussed, although expressing quite reasonable concerns in certain areas where they would have personal experience such as shopping, health and education where the impersonality of the system was noted. In addition they apparently used the games and the system in general much more than the Elie adults.

The youth indicated little concern with regard to any of the issue areas discussed and their major concern appeared to be that the games were repetitious and lacked the action element of video games. In addition they were the only group to have indicated that they derived any significant benefit from using the system - "they had all learned to program in Basic."

This general enthusiasm is perhaps instructive. They appear to take the system as a given - they compare it not with existing services but with other similar systems (micro-computers and other games). They have few misgivings about the introduction of the system.

## 6.6 Eastern Canadians vs. Western Canadians

A comparison between the Toronto group and the Elie adult group is probably more of a comparison between urban and rural users, and within that between upper middle income urban dwellers and lower middle income small town dwellers, than it is a comparison between "Eastern" Canadians and "Western" Canadians.

The contrast, however, is interesting. The Toronto groups overall are much more accepting and interested in the technology than is the Elie group. The Elie group does not see that the technology has very much of interest to themselves - nor do they see much use they could make of the system either now or in the future., Rather they see it as a technology for the "next generation" or possibly for farmers (Grassroots) or the handicapped.

Even those services which one might think would be interesting to them such as shopping, held little real interest. Other possible services such as banking or medicine were apparently adequately provided locally already. What appears to be manifest is an underlying attitude of conservatism with respect to technology. The attitude is not one of skepticism, they see the usefulness of the system, but rather a reluctance to try something new. Interestingly, they had fewer concerns regarding the system in such areas as privacy or reliability than the Toronto groups apparently believing that whatever problems might arise would correct themselves or someone somewhere would correct them. Again this reflects a lack of real engagement with the technology - it was of little interest to them and those to whom it was of concern would look after it. "It's just like when they gave us the Telidon. At first it was strange now it's nothing."

## 6.7 Professionals vs. Non-Professionals

There were inevitably considerable differences between the professionals and the non-professionals in the response to Telidon. Partly this reflects the professionals greater experience with the system but perhaps less experience on the system. Thus while as individuals the Telidon professionals spend much of their working life thinking and talking about and manipulating aspects of the system, as a group they probably spend relatively little time actually watching or using the system.

Thus the professionals tend to see the system as they would like it to be or as they expect it to be - as fully operational, with all the bugs ironed out and with the applications and, most importantly, the market having been sorted out. In fact, of course, none of this is true for Telidon as yet and the non-professionals reflect this - they are overall intrigued by the possibilities but are fully cognizant of the system's limitations.

As a group the professionals recognize most of the issues discussed as being potentially of concern to the ultimate use. Interestingly however, few, if any of the issues, were of concern to themselves either as professionals or as citizens except perhaps privacy where they better than the non-professionals recognized how few safeguards there actually would be. The professionals overwhelmingly felt that the industry should be self-regulating with respect to these issues, while the non-professionals were of mixed minds - they neither completely trusted government nor industry to safeguard them.

## 7. SOME GENERAL THEMES

### 7.1 Introduction

In this chapter rather than attempt to derive conclusions, we will explore several general themes which appear to emerge from our discussions. These themes appear to underlie certain of the responses and perhaps provide an explanation for them. However it must be remembered that we are dealing with a qualitative analysis of qualitative materials and our themes and the discussion of these themes should be seen at best as indicative of areas for possible future research.



## 7.2 Expectations and Experience

It is interesting to observe that there were similarities between the professional groups and the controls in contrast to the user groups. These similarities especially with regard to optimism concerning the usefulness of the system and perceptions of possible issues appear to be based on commonalities of expectations and experience as between the two sets of groups.

The controls and the professionals both had experience with the system rather than on the system. Both knew more about Telidon than they did about what was in Telidon. Thus they could have expectations concerning the system which were unsullied by having to accommodate these expectations to the day by day experienced realities of the system.

The opposite effect also apparently can be discerned. Those with the greatest experience of the system, the field trail participants, had lower expectations for its usefulness in various application areas. This effect appears to carry over into perceptions regarding areas of possible concern. Those with the greater expectations for the system also perceive social issues to be more salient and pressing; those with lower expectations see them as less urgent. Notably the Elie adults with the least expectations also expressed the least concern regarding the social issues.

### 7.3 Impersonal and Personal Relations

A dimension underlying many of the responses to the system was the perception that Telidon was suitable for impersonal but not for personal activities. Thus those who saw banking as a "personal" matter; who took a "personal" interest in shopping or identified certain shops for items as "personal"; who saw education as requiring personalized attention; and so on, could not see themselves using the system in these areas. Insofar as they perceived the world to share these sentiments they did not believe that the system would be generally accepted for these applications.

What is meant by "personal" in this context appears to be the capacity for sensory contact over and above the purely visual which Telidon provides (or the audio-visual of television). Thus the ability to touch food or clothes or money, to move around and observe an object such as a car, to be near another person (as in teaching or in banking) are all elements of the "personal" and all of these are absent in the impersonal world of computer mediated communication systems such as Telidon.

Evidently what are meant by the "personal" spheres vary from individual to individual, but it is likely that Telidon (and other computer communication systems) will not be seen as appropriate media in these areas for some time to come. It is our hypothesis that the more "transparent" the technology the more it is likely to be perceived as suitable for use in the personal sphere.

#### 7.4 Self aware vs. Spontaneous use of Telidon

What seems like spontaneous behaviour is behaviour that is so well learned that it seems "natural" and does not have to be consciously processed each time it occurs.

Because of the need to master a certain code of entry (its lack of transparency), Telidon imposes its own logical framework on the user. It would seem that some respondents assimilated this new mode of interaction more quickly than others. Thus the ease with which children learned to use Telidon was often commented on by parents and educators. Many respondents in our study indicated a continuing impatience with the use of the keypad or the tree structure. These are likely to be the ones who are also more "self aware" when using Telidon.

It can be surmised that those who use Telidon more frequently are also those most "spontaneous" or at ease with the system. This agrees with our findings that men and children who reported more frequent use of Telidon also indicated more ease with the system. Women reported less use of Telidon except in Manitoba, where in Grassroots they reportedly use it equally with men with whom they share farm management functions.

It would seem that the present applications on the Telidon system in Toronto and Cap Rouge are of less interest to women who consequently use it less and who therefore fail to develop the "spontaneous" behaviour that

*Did you  
ask them  
if they  
were  
interested?*

would come with more frequent use. Further systematic study is probably warranted to determine whether ease with the system is related to age and sex or is the result of greater frequency of use; and whether system transparency is associated systematically with systems acceptability, i.e. whether certain groups are more accepting of a relatively opaque system or whether some groups are prepared to accept a particular type of access limitation more readily than others.

## 7.5 The Private and The Public

Related to the personal and the impersonal is the dimension of public and private. Public behaviours are those which are performed in arenas to which all have access, private behaviours are those to which only selected others have access. As with personal and impersonal the demarcation line between the public and the private will vary as between individuals.

It is a public medium (one to which all have equal access) which nevertheless is accessible and which can access the individual in the home, the primary domain of the private. In this it is like the telephone which many find necessary yet intrusive.

Interestingly several of the comments made by women suggested that they perceived Telidon to be intruding into the private sphere. The problem was not that the system was bothersome, it could of course be turned off or not turned on but rather that it brought behaviours and activities which would normally take place in public spheres into the home. This was seen as intrusive and disagreeable and suggests that this division between public and private may be a stumbling block in the development of computerized home delivery of "public" services.

*telidon*

1. Name \_\_\_\_\_ 2. Occupation \_\_\_\_\_

3. Age - < 19 \_\_\_\_\_  
 20 - 29 \_\_\_\_\_  
 30 - 39 \_\_\_\_\_  
 40 - 49 \_\_\_\_\_  
 50 - 59 \_\_\_\_\_  
 60 + \_\_\_\_\_

4. Education:  
 Some high school \_\_\_\_\_  
 Finished high school \_\_\_\_\_  
 Some post secondary \_\_\_\_\_  
 Finished post secondary \_\_\_\_\_  
 Professional training \_\_\_\_\_

5. How frequently do you use Telidon?

more than once / day \_\_\_\_\_  
 once per day \_\_\_\_\_  
 three times per week \_\_\_\_\_  
 once per week \_\_\_\_\_  
 once every two weeks \_\_\_\_\_  
 once per month \_\_\_\_\_  
 less than once / month \_\_\_\_\_  
 never \_\_\_\_\_

6. How long do you use Telidon for at a sitting?

about one minute \_\_\_\_\_  
 1 - 3 minutes \_\_\_\_\_  
 3 - 5 minutes \_\_\_\_\_  
 5 - 10 minutes \_\_\_\_\_  
 more than 10 minutes \_\_\_\_\_

7. What do you usually use Telidon for?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

8. Overall what is your feeling concerning the Telidon system?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Discussion Guide

1. Presentation: Nature of project.
  - who we are - Socioscope
2. Purpose: To discuss some of the issues that could arise in using Telidon.
3. Applications: There are a number of possible applications of Telidon. For each application we would like to discuss:
  - whether you think it is a suitable application;
  - what problems you see arising from this application:
    - education
    - banking
    - health care
    - shopping
    - voting
    - games or recreation
    - government information
4. Given that Telidon may become a highly valuable source of information do you think that special measures should be taken concerning:
  - access
  - privacy
  - diversity of information providers
  - reliability
  - infomercials
  - What would these measures be?
  - Who would take the measures (government / industry / independent)?
5. Those who have thought about the broader implications of Telidon have identified several issues of broad public concern. - Amongst these issues we would like to discuss:
  - vulnerability - dependancy
  - employment - effect on number and content of jobs
  - greater participation / or more social isolation
  - computerization of society / culture



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--A report on a focus group study of user responses to Telidon

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