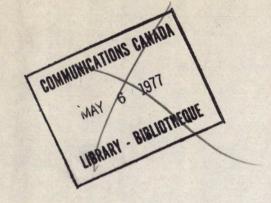COMMUNICATIONS AND THE HANDICAPPED:

PRELIMINARY SURVEY

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            Social Communications)

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CONTENTS

SUMMARY

During the summer of 1976, a research team from
the Institute of Social Communications of St. Paul Uni-
versity, Ottawa, interviewed 104 disabled individuals
from Ottawa and Montreal concerning their communication
habits, social and economic situations, and the limita-
tions placed on their lives by their disabilities. In-
dividuals who were interviewed were referred to us by
organizations concerned with the Disabled and disability.

The following general conclusions can be drawn
from our study:

(1) The disabled do not form a unified, homogeneous
    community; on the contrary, with the exception
    of their physical disability they share the same
    variability of the general population when e-
    quated for age, income, and education.

(2) Not only is there no single definition of the
    term "disability," but also there seems to be
    no certain way short of a census to determine
    how many disabled persons there are.

(3) The Disabled are best located through organizations
concerned with them--charitable, therapeutic,
recreational and social. There is no centrali-
zed administrative "list."

(4) In general there is no evidence that the media,
per se, isolate the Disabled. More likely iso-
lators are the disability itself -- with re-
sultant lack of vocational and educational op-
portunity -- and the reaction of the Disabled
themselves as well as others to the disability.

(5) Although organizations for the benefit of the
Disabled perform their jobs well enough, mem-
bers of our sample, despite reference by these
same organizations to them, do not participate
actively in the organizations. A few well-
motivated, and generally younger individuals
provide the power behind the involvement of the
Disabled themselves.

(6) The Disabled are isolated and perceive isola-
tion as the major problem they face. Contribu-
ting to this problem is the lack of social and
economic power they have to mould the world a-
bout them to suit their purposes.

(7) The concept of communication as an important
activity in the life of the Disabled was re-
ceived well by therapists and the Disabled
themselves.

(8) With a few notable exceptions, respondants
accommodate to their inferior status and lack
of functional capability through lowered ex-
pectation of power. Younger, better-educated
individuals, however, seem to be seeking im-
provement through political involvement and
"community" development.

With respect to specific findings in communication
habits, we discovered the following:

(1) TV and radio are used as heavily among this
population as in the general population; radio
listening averages about 3½ hours per day, with
about 3 hours of TV viewing the average.

(2) Books, magazines, and newspapers seem to be
less popular, probably due to cost and a measure
of physical effort required to obtain and use
them.

(3) Radio and TV are used as news sources almost
daily, and three-quarters of the sample read

a daily newspaper.

(4) However, between a seventh and a fifth of our sample do not utilize tv, radio and the newspaper ever.

(5) Radio is seen as a news and music medium.

(6) Special services, except for the blind, are almost never used; in fact, a large proportion of our sample did not know of the existence of special tv programs, newspapers, and library services.

(7) Although all members of our sample had access to one or more telephones, over 2/5 of them placed or received calls less often than weekly.

(8) One in six of our respondants have a pocket calculator. Information about them came overwhelmingly from interpersonal sources. One in six had never heard of them, either.

(9) About one in twelve require assistance in phoning; one in eight, in reading a newspaper; one in five, in writing and reading postal correspondance; and one in three, in obtaining books.

(10) Telephones and radios are personal items: the majority have them in their bedrooms. The television, however, is as likely to be in the living room.

(11) Total mass-media usage (radio, television, newspaper) seems to average around $7\frac{1}{2}$ hours per day,

an estimate that is probably low. Of this time, probably two hours or more is news.

(12) In most regards, our sample seems similar to the retired reported upon in _Reaching_ _the_ _Retired_ insofar as media usage is concerned. Sharing similar reduced economic and educational power, isolated from vocational pursuits, and physically less powerful than the general population, they increase their mass media usage for their own purposes to fill time. Their special needs, however,are _not_ met by the media, mass or otherwise.

Based upon these findings, we have made the following _recommendations_ for the Department of Communication:

(1) The DOC undertake to keep governmental agencies (Federal and provincial) abreast of technical developments affecting the Disabled through newsletters and occasional in-house seminars.

(2) A joint DOC-St. Paul University conference on Communications and the Handicapped be held.

(3) An individual who is an employee of Health and Welfare Canada be appointed a liason with the Department of Communication to work with DOC on matters relating to the Disabled and new systems, ser-

vices and devices that might be for their bene-
fit.

(4) The DOC commission, fund, and contract a large-
scale sample survey to continue and complete the
exploratory work done in 1976 on data collection.

(5) The DOC undertake a small-scale investigation of
policies to plan for telecommunication-aided
information services for disabled populations.

PREFACE

"Communications and the Handicapped" is about as easy to say as "St. Catherine and University" but far less easy to give directions to. The latter might require a map, a little arm-waving, and some knowledge of the traffic by-laws of Montreal. The former requires these too, but in different form. Our map is this report, less resembling the complex grid of a modern metropolis than a crude explorer's map carried by the second or third party of adventurous souls into New France. We wave our arms a little, too, and perhaps a little too much, especially where our map is insufficient. In terms of traffic by-laws, we had those of Montreal and Ottawa to contend with, not to mention other by-laws relating to conduct through communities not normally associated with these cities: the community of the Disabled, the community of the Bureaucrats, the community of the Agencies and others.

This research represents a first attempt at exploring the intersection of the scientific study of communication and the rich, diverse fields relating to the Disabled. The territory is vast and, like Canada's first explorers, we had many reports and intuitions but very few roadmaps to go by. Each area provided us with tools, fact, and procedures yet just as the beaches along the St. Lawrence resemble the land and the sea while remaining different, so "Communications and the Handicapped" has a unique identity. We tried to discover it and this report is documentation of our effort.

Our effort, however, would have been ineffective without the efforts, freely given and well appreciated, of others. Everywhere we went we were warmly received; warm receptions occurred even when we were less than articulate about why we were visiting. Therapists, administrators, agency employees--all were eager to speak with us and eager to share their experiences. Many said that they see the importance of this work, but despite this "excuse" to be friendly we also saw genuine concern with the Disabled, communication, and research as human beings and as human activities.

The list of individuals we'd like to thank is long-- over a hundred persons were engaged in multiple conversa-

In Montreal, we owe special thanks to Irene Macagy
and Dorothy Allen of the Montreal Association for the
Blind; Bill Rutkin of the Lethbridge Readaptation Centre;
Pat Sisco of the MacKay Center for Deaf and Crippled Child-
ren; Bernard Primeau of the Rehabilitation Institute of
Montreal; Michel Jette and Fernand Huneault of the CNIB;
Roger Mondor of the Federation des Loisirs et des Sports
pour les Handicapes du Quebec; Jacques Corbeil, Director
of l'Association de Paralysie Cerebrale du Quebec; Gaetan
Bourgoin of l'Association Canadienne des Paraplegiques;
Jacques-Gilles Laberge, Director General of La Maison Lucie
Bruneau; Marc de Lanux, Head of Public Relations at Bell Canada;
and   Michel Moreau and Edith Fornier of EDUCFILM.

At the Department of Communication we found that Jean-
Guy Prince provided contract supervision in a friendly and
highly professional manner. He and Bob Lucyk provided an
atmosphere of trust and respect which we felt was mutual.

To the Disabled themselves go more than our special
thanks. They were charming, gracious, friendly and eager
hosts and hostesses. There was never any question of
cooperation being difficult. When we were embarrassed, they
helped us out. When we fished for words, they came up with

them. When we knew we had overstayed our announced 45 minutes, they reassured us and kept on talking. We all felt mutuality of purpose. For the ways in which these persons, individuals all, helped us grow, we cannot give enough thanks. The dryness of this report cannot give justice to the humanness and comfort of our conversations.

The "we" of this report became a team primarily because of our interest in the content, but we became a close team by interviewing. In Montreal my colleague Michael Mills, who is entirely responsible for the excellence of Chapter 5, directed interviewing and performed the same functions there as I did in Ottawa, only better. Nicole Leduc interviewed our respondants but she was at her peak interviewing me to get out rationale, fact, and guidance when, at times, it seemed that none was forthcoming. In Ottawa, Amanda Leslie-Spinks was an astonishing interviewer considering the breadth of situation and skills required of her. We four are "we" and a better team for exploratory research in applied areas would be hard to put together. Thanks too are due staff members at St. Paul University, especially Karen Laurence who did library liason for me.

To my wife Marilyn go special thanks for hours and months of support when I felt lost in this strange terri-

tory. Her knowledge of social work and administration were strong intellectual supports for me in this work, but her affection, empathy, and kindness rivalled and even surpassed these generous gifts. Her comments and editorial help made writing this report less threatening, and made the report better and more understandable.

The new discipline of Communications and the Handicapped was launched in May of 1976. Thus far the sailing has been smooth, more of a pleasure cruise than an explorer's dangerous foray.

Paul Licker

April 1977

1. INTRODUCTION

1.1 The Disabled Themselves

This study examined the mass media habits and the
interpersonal communication behaviour of the Disabled in
Ottawa and Montreal during the summer of 1976. This con-
stitutes, to our knowledge, the first systematic attempt
to look at communication as a facet in the lives of this
population. Other groups, notably the retired and children,
have been looked at before in detail. Hypotheses generally
relating to degree of use and susceptibility to certain
content (advertising, violence) were advanced. Questions
relating to media "needs", particularly those of adult
populations were raised.

It is against this background of communication
study that we pose our research. While we were not con-
cerned exclusively with either usage, susceptibility, or
needs, we felt that since nothing could be taken for granted
about the Disabled and their lives we would start from the

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basics: definitions, life situations, problems, and activities.

We interviewed 104 individuals of remarkably wide interests, capabilities and backgrounds. Of these, 40 lived in and around Ottawa and the remaining 64 lived in Montreal. We were impressed, in fact, with the wide variety of personalities and life-styles we encountered, even among this limited group. They were, in a word, individuals. There seemed to be no quick and sure way to group them together. With few exceptions, divorced from their external aids (wheelchairs, canes, braces) and in environments which were less therapeutic they would be difficult to distinguish from the general population. Chapter 5, in fact, discusses the concept of "being handicapped" by assuming that the differences among individuals are far stronger than their similarities.

In this report are presented a discussion of our research methods -- important themselves -- a summary and discussion of our data, some background information concerning the disabled we interviewed and disability in general, and some recommendations concerning the relationship among the disabled, new communication systems, services, and devices for their potential benefit, and the Department

of Communication, the funder of this research. We feel strongly that while there is great promise in technology for the general populace, for this particular population, there are some difficulties in designing and "proofing" satisfactory items. It is to disseminate these ideas that we invite you to read our report.

1.1.1 What, Where and When are the "Disabled"?

A proper discussion of the disabled depends upon solving three problems we encountered before beginning our research. There was a problem, instructive to explicate, in trying to do research which involved sampling from the disabled population, even within the limited geographic regions we worked in.

There are three reasons for this. These reasons are not presented here as an excuse, for we don't feel any need to make excuses. When working in a new area, one must always make allowances for variation. These reasons are important because they point out the need for re-search with the disabled as communicators and the difficulty one has in defining, counting, and locating persons others might call disabled.

1.1.2 A Definition of Disability

First, no one is certain what a disability is. Health and Welfare Canada utilizes a definition tied to rehabilitation and vocation.[1] The MS Society would use a definition tied to diagnostic criteria.[2] The CNIB has quasi-legal criteria for registration -- significantly the only legal registration of a disabled population in Canada. A disability becomes often what someone who imagines himself in the helper part of a helper-client relationship wants it to be: a functional disability, a handicap[3], a vocational shortcoming, a diagnosis. Consequently, it is next to impossible -- and unnecessary -- to come up with a single definition of "disabled".

Most studies "of the disabled" utilize functional disability classification -- unable to X -- or diagnostic criteria -- neurological, visual, aural tests. When looking at communication, however, we were concerned that the only way to determine functional disability was to gather enough persons together and interview them. The key word was "enough". To avoid this problem, we utilized others' definitions of disabled and contacted persons through organizations.

The danger here is looking at the wrong population. However, except in the case of registration, one can never

know what the right population is. In their study of the
retired (termed R+R from the report titled Reaching the
Retired), Environics Research Group Limited used OHIP
registration lists for Toronto. No such list exists for
the disabled. There are (sometimes) jealously guarded
client lists for various organizations. National Health
and Welfare points out the existence of three restricted
registries.[4] Otherwise, the organizations concerned are
the only accessible proprietors of such information.

1.1.3 How Many Disabled Persons Are There?

Even so simple a question as "How Many?" is difficult
to answer and this is the second problem. Various organi-
zations have estimates as to the prevalence of their par-
ticular disability and statistics on the number and type
of their own clients. This information is not totally re-
liable and suffers from the potential for double-counting.
Furthermore, it leaves out just those who might profit most
from increased or more effective communication: those who
cannot be normally contacted and counted, who choose to
sequester themselves, or who are artificially isolated
by friends, family or institutions.

There are two sources of information on how many
persons there are with disabilities, general surveys and

agency estimates. Certain general studies in specific areas have produced estimates. Wilson (1974) estimates that about 3% of the under-65 population requires some degree of home living assistance.[5] She has applied this ratio in other circumstances and has found it general. De Leuw Cather (1974) estimated 6.75% of the population would experience some difficulty using transit systems, based on the returns from a 1973 study conducted in Ottawa.[6] This compares closely with an estimate of 6.5% to 7.5% of the over-16 age population in the US similarly "mobility-impaired".[7] CMHC estimates a "Handicapped" population at about 10% of the general population -- their concern is housing (CMHC, 1975). A recent British survey turned up about 5% handicapped in a total population study of a small town, but this estimate is not immediately transferrable to a Canadian or large urban setting.

A second source of data, albeit piecemeal, is from the agencies concerned with the disabled. The MS Society of Ottawa (Hamilton and Bennett, 1975) estimated MS prevalence at 0.067% in Ottawa-Carleton, about 1/3 of which experienced at least extreme restriction in mobility outside their dwelling. Phil Parker of the Canadian Hearing Society estimates that 10% of the population at

large has some hearing loss and that 0.1% are profoundly deaf, many from birth (which means an accompanying speech impairment). CARS (Canadian Arthritis and Rheumatism Society) estimates that 95,000 persons are confined to bed or wheelchair and about 428,000 are partially disabled due to arthritis alone (0.5% and 2.14% respectively). The Canadian Paraplegic Association recently estimated 9,000 (0.05%) of the population has spinal cord injury (paraplegic, quadraplegic). About 5,000 veterans receive disability benefits, according to DVA. According to various DNIB estimates, about 0.1% of the population is blind, although there are varying degrees of blindness. The Library of Congress in the U.S. uses a classification called "reading impaired" which includes the blind and some paralyzed persons. Obviously far more than 0.1% of the population experiences some difficulty in reading.

1.1.4 Locating the Disabled

The third problem is that even given that we could estimate how many persons are needed and of what description, contacting them is quite difficult. Being less mobile, less wealthy, less inclined to work full-time

than the general population, they tend also to be more
isolated and to be known to fewer persons. Again, the
organizations seem the best way to locate them. Mrs. Barbara
Stokes of CARS estimates, however, that of the 20,000
potential arthritics in Ottawa-Carleton, her organization
sees only 3,000. A recent study by the Regional Munici-
pality (reported by De Leuw Cather) turned up about 950
mobility-impaired individuals, but Mr. Wayne Bowes estimated
that it would cost $20,000 or more just to contact, not
even interview, the disabled of Ottawa-Carleton. A news-
paper advertisement for someone to work on the committee
for transportation and the disabled turned up a single
volunteer -- and he was non-disabled.

Most of those who are treated are un-registered and
as soon as they have been taken as far along in therapy
and rehabilitation as is possible, they lose contact
with agencies, specifically Provincial ones. No one knows
how many persons truly are disabled. Not only they, but
their families can be ignorant of services available to
them. For instance, Information Services for the Disabled
was recently called to give advice in obtaining diapers
for a 200-pound retarded adult who was going to camp. This
family obviously hadn't been contacted by appropriate
agencies yet.

Faced with these three methodological problems, we proceeded nonetheless. Our respondants are unrepresentative (they were all agency referrals, plus a few personal referrals) and probably not proportioned properly. Yet they represent the statistical best sample it is now possible to locate. There is no way to multiply our results to obtain numbers within 100% accuracy; only our proportions remain useful, but we think they are a guide to the next round of asking questions.

1.1.5 Our Classification of Disabilities

For the purposes of this study, we utilized the following classes of disability:[9]

1. MS -- diagnosed or otherwise

2. CP -- cerebral palsy

3. Para- or Quadra-plegia, including the effects of accident, birth, or disease on upper or lower extremities

4. Arthritis and rheumatism including rheumatoid arthritis

5. Lung diseases of various sorts

6. Blindness of varying degrees

7. Deafness of varying degrees

8. Speech impairments

9. Combinations of 6, 7, and 8

Since, in many ways, MS victims, lung disease patients, and arthritis and rheumatism victims experience a general slowing down and inability to articulate their body generally, they can be lumped together for certain purposes. This gives a five-fold distinction, useful when considering the possible aid that communication devices and systems can offer:

1. Mobility impaired -- access difficult[10]

2. Articulation impairment -- motion difficult, access possible[11]

3. Sensory impairment -- communication difficult[12]

4. CP -- motion and communication difficult

1.2 Communication: A Model

In speaking with disabled persons, it soon became apparent that communication was not seen as a separate activity in their daily lives. Communication was seen instead as a means to an end, part of other more salient activities. One watches TV to pass the time, makes phone calls to find out information about some activity, reads the newspaper to make contact with the business world, etc.

As with any other activity, communication is embedded in daily life and separating out communication events makes little sense. Do four phone calls count twice as much as two phone calls, even when three of them are busy signals? What is one hour of TV worth to a quadraplegic and is that value more than the same hour for someone with MS? Very quickly we decided that making hypotheses was premature and that we needed to look at how communication activities fit into daily life.

We've isolated several areas in which communication seems to play an important part and in which better communication might make a difference. These are as follows:

1. Education, socialization

2. Vocation

3. Homemaking

4. Entertainment (formal) and recreation

5. Therapy, rehabilitation

6. Socializing and home entertaining

7. Religious activities (excl. 1, 2, 4, 5 and 6)

In addition, communication contributes to the following:

1. Self-image

2. Social contact

3. Societal contact (socialization)

The diagram below indicates some of the ways that communication forms links for the non-handicapped. One informal hypothesis of our research was that there were some differences between disabled and non-disabled persons with respect to these links.

Electronic or "Mass" Media
TV Radio Magazines Newspapers Books

Society

Face-to-Face Interaction
Assemblies, small-group, familial, consultative

Individual

Other Individuals

Aided Personal Interaction
Telephone, Mail

Some of these links are one-way, such as TV or radio and others, such as telephone and mail are two-way. Combinations, such as open-line radio programs exist, too, allowing for simulated two-way, multi-media communication.

The links in this diagram represent information flow. Theorists, such as Ashby, would point out that such information flow also represents the direction of control. We assume that one is acquiring information to fill a need. One might therefore be giving up a certain degree of control in return for that information. When one is limited to a single source for information, one is in a very weak position, indeed.

Our assumption is that being handicapped restricts unimpeded usage of this set of links. This makes one more or less dependent upon certain of the links, raising new needs and reducing old ones, depending upon the needs in the areas outlined before. This is another formulation of the old "shut-in" designation. But rather than assume that one would be shut-in if one were disabled, we instead decided to assume a scale of limitation and wide scope for areas of limitation.

Consequently we asked questions about interpersonal contact in a variety of situations, got interviewees to

discuss hobbies, jobs, therapy, entertainment, education and their living situations so as to bring out areas in which communication restrictions might make a difference. This method, of course, tends to enhance the impact of communication vis-a-vis normal conversation; but we had little choice. No one, it seems, "communicates" as a daily activity.

Ultimately we wished to measure what kind of impact certain disabilities and their uncomitant living situations had on the use of various communication pathways, either restricting or enhancing.

In addition, we weren't blind to the possibility of turning the tables. One thing we looked for was the ability of the disabled to be a society themselves, i.e., to act as sources. We were interested in the degree of cohesion among the disabled and among agencies having them as clients. We asked about what became humourously known in our group as "Disabled Media", a catchterm for media efforts by the disabled. At all times we felt that the disabled person possesses the same potential skills to act as a message source as the non-disabled person.

1.3 Scope of the Study

Our study was extended in three directions. First, we interviewed persons and organizations in two distinct

geographic areas: Montreal and Ottawa. Second, we inter-
viewed persons who had a wide range of disabilities. Third,
we looked at certain media or situations of communication.
Thus, while the focus of our study was exploratory, we had
a good idea of some of the parameters which were necessary
to have vary over a range.

1.3.1 Geographic

We did not attempt to locate representative areas
of Canada for our study. This is probably impossible to
accomplish; but in any event, such a step is premature. We
just do not know enough about communication in general to
be able to say such and such a geographic area is typical
of situations in which the disabled might communicate. In-
stead we took the necessary step of limiting our study to
locations in which the interviewing machinery -- our staff --
was available. This boiled down to Ottawa and Montreal.

In a sense this expedient is defensible. Ottawa
is a large city, situated as a regional centre and is
essentially anglophone (disregarding Vanier and the Outouais
region surrounding Hull in Quebec). Owing to the proximity
of several hospitals, and the Royal Ottawa Hospital in
particular, there is a wide range of disability and degrees

of disability in Ottawa. In addition, the presence of governmental agencies and several layers of governmental authority makes for some interesting issues generally. Several, including housing and public transportation, directly affect the disabled.

Montreal is a large urban setting, ethnically and economically varied. With a large Francophone majority, it provides a counterpoint to essentially anglophone Ottawa. Montreal is also blessed with the presence in large numbers of governmental agencies and head offices of agencies for the disabled.

Obviously there are important ways in which these areas are **atypical.** Ottawa's major employer is the Federal Government, and residents are overly represented by white-collar civil servants of higher income, greater education and broader aspiration. Ottawa's small-townishness is mostly mythic; urban anonymity makes Ottawa more similar to Detroit than Carleton Place in terms of interpersonal contacts. Montreal is the hub of francophone cosmopolitanism, far more noticeable than even Toronto's. The city veritably throbs with humanity, causes, issues, and, with the Olympics come and gone, consciousness well above the family level. In these two types of milieux, the isolation

of the disabled, if it exists, would be far more complete than in smaller towns.

Nonetheless, it is to the urban centres that the disabled, who are expensive to maintain individually, are drawn, and in a certain sense, forced. Treatment centres, educational facilities and jobs are located in and around these centres. Add to this the existing pressures generally to leave the land (even small-town land) and head for the high-rises in the City, and the disabled person could see little recourse but to be where the action, -- however slight, inaccessible, and difficult to use -- is. So while Ottawa and Montreal aren't typical, they are probably the future of the disabled.

Paradoxically, such urban areas are also the probable future of communication aids, systems, and services for the disabled. While some media[13] are omnipresent, deviations in the form of "specials" become quite expensive when the economy of scale is lost. Cable TV is less expensive when cable runs are short. Shared facilities are less expensive than dedicated ones -- physical proximity eliminates "dead" time due to switchover. Until the country is remote-controlled via telephone or satillite, new services will be best accessed from cities and experiments will be

tried where the clients, experimenters, and funders are located, at least for the next 10 to 20 years. So we looked in the cities.

1.3.2 Persons

Owing to the difficulties described in section 1.1 we interviewed any disabled persons we could find through organizations. This introduces bias several ways.

Statistical bias is introduced -- in fact, statistics are only as reliable as the sampling scheme and proper stratification.

Participant bias is introduced because we interviewed only those who were known to an organization and who consented during a preliminary telephone conversation. The "disabled in the woodwork" and the non-closet handicapped without phones were never contacted. Very mistrustful persons, persons extremely cut off from social contact, and totally disabled persons could not be included in our "sample".

Handicap bias is introduced because we could not interview persons who were inarticulate. This included the mentally retarded, emotionally disturbed and the profoundly deaf. This latter problem is a serious one for our study. The deaf are far more cut off because of communication

problems than any other group. Even the quadraplegic can carry on a conversation if he is visited. Often the profoundly deaf and the deaf-before-speech cannot hold up their end of the conversation, even merely to respond to a request for a face-to-face meeting.

Personal bias results from selection of our respondants for us by organizations. They made the decisions as to who was articulate, well enough, interesting, available, or pleasant. Often the most articulate have a reason for being so.

Now the strengths of our survey arose, too, out of this method. We wanted to speak to articulate persons -- they had something to say and we were looking for leads. We wanted to go through organizations because we are concerned with their ability to act as information channels to and from their clients. We knew of no other way to obtain a wide variety of individuals without introducing still another variable -- participant fear -- into the equation. At least we knew that our respondants were somewhat willing; a random sampling technique, such as random phoning, might have turned up only the very, very willing. We supposed that if a person let an organization "talk him into" speaking with us, then that person was

typical of clients. After all, a client is a person who is convinced that the consultant is working for him.

The only serious drawback beyond the statistical is the inability to contact and interview deaf persons systematically -- especially the profoundly deaf. Future work directed towards them alone will be necessary. We were made aware (and warned) in any event of their difficulties. The technical side of deafness is well known; yet we regret not having had much experience with the human aspects of communication and the deaf.

1.4 Import of the Study

As a first attempt to ask disabled persons a wide range of questions concerning their communication needs and habits, the survey was a success. We discovered the difficulties in locating and contacting individuals having a variety of disabilities and were able to construct an interview schedule which illuminated our concerns.

The data collected from this study consist of two sorts. First, there is numerical data pertaining to the disabled and their communication habits. This data may be used, at some hazard, to infer the potential user group size and some characteristics for certain services, systems

and devices (SSDs). However, this data is far from useful
in determining the usefulness per se of certain SSDs. For
this, a deeper analysis must be performed to derive other
data.

This kind of data came from speaking with repre-
sentatives of organizations, from off-hand comments, from
the way in which questions were and weren't answered, from
the apparent grasp and lack of grasp on the part of the
disabled as to their interests vis-a-vis new SSDs and from
other, equally "soft" sources. This kind of data cannot
be tabled and, since we did not construct an attitude
survey, we cannot present any such data relating to what
the disabled "say" they want or need or would tolerate.

On the other hand, we have a pretty good idea where
not to look for answers to particular questions. We are
now aware of the impossibility of determining a numerical
number for "want" with respect to a new SSD. Owing to a
lessened chance for higher education, lack of vocational
contacts and general inability to do something about
becoming more aware, many of our interviewees simply cannot
be asked to give an accurate picture of the technical re-
quirements of what they want from the media. Nor should
we pressure them to do so.

Unlike the "Retired", whose attitudes and opinions were sampled and reported on in "Reaching the Retired" the disabled do not represent a slice of the general public. They are generally (with many exceptions) deprived of information relatively more early in life through lack of mobility (and thus education and jobs) and by the ever-present need to attend to body rather than mind. It is inconceivable that the disabled community would be able better to weigh the advantages of, for instance, two-way cable than the general populace. A significant proportion of our respondants had never heard of portable electronic calculators!

It simplifies to this paradigm:

a. The disabled <u>share</u> the common needs of humanity; but

b. They have <u>specific</u> needs beyond that, needs which

c. Detract from their abilities to evaluate new SSDs

d. As solutions to their needs.

Thus, while the exception (as in general society) can be called upon to make such a judgment, it is more likely that this particular group will be unable -- in the

mass -- to "vote" on particular solutions to particular problems through a survey.

What the survey method does elucidate is the particular set of forces acting upon the disabled which reduce certain capabilities -- both physical and social, including communication at both levels -- while simultaneously showing the enormous degree of similarity holding between the (imaginary) "typical" disabled person and the (imaginary) "typical" "normal" one. In fact, the survey shows that the variance among the disabled is as great, in almost all respects, as that of the population at large. There is little justification   beyond mere physical cataloguing in lumping disabled persons together. Situation rather than personality seems to be the ruling factor.

Hence the survey method, and our survey in particular, should be relied upon for the following:

1. Demographic data;

2. Situational factors; and

3. Manifest and verbalized needs.

This data, when augmented by observation and commentary from trained practitioners (i.e., those who have the disabled as clients) can lead to other, softer, data:

1. Life-happiness criteria;

2. Level-of-performance in certain tasks;

3. Expectations of and by the disabled; and

4. Disability-communication impact.

1.5 Conclusion

The disabled, a varied group of individuals, are labeled as such owing to physical "lack" yet it is unclear that there is a corresponding lack in terms of communication, especially a lack which can be filled by better or new communication systems, services and devices (SSDs). Our research attempted to see if there was reason to believe that the concept of disability could be extended into areas of communication and if disabilities thus located and named would be alleviated by certain SSDs. We took as a first step goal merely the definition of disability and its interaction with communication needs and habits.

In performing the research we discovered the difficulties of contacting, locating, and interviewing disabled persons. They appear to be groupable only by applying labels derived from rehabilitative medicine. That is, we discovered few consistent situations, approaches, and life-styles, even within a given category of disability.

Instead we found a diverse, undereducated, overstudied and, among the young, impatient group of individuals concerned with issues not labelled communication, issues such as housing, transportation, and jobs and access. Nonetheless, we formulated questions which tie communication to these issues and others. Our survey data can therefore be used to "calculate" the impact of better SSDs on situations dictating inferior positions with respect to these issues, when certain soft data areas are included in the equations. The next sections detail the survey and our results.

FOOTNOTES

1. Numerous functional disability definitions arise for
    different H&W needs; one overall definition is not
    available.

2. A recent study (Hamilton and Bennett, 1975) depended
    mainly upon neurologists' diagnoses for inclusion.

3. The controversy surrounding the choice between "dis-
    abled" and "handicapped" depends upon the negative
    weight of the term as a loss of deficiency. In this
    study the two terms are used interchangeably unless
    specifically restricted.

4. (1) NH&W surveillance of congenital anomalies, (2)
    Provincial registers of handicapped children, and (3)
    The B.C. Registry of Handicapped Children and Adults.

5. Her report concerns a Home Living Assistance project
    for New Brunswick and she needed to estimate homemaker
    needs.

6. This study was concerned with predicting potential
    load on a subsidized public transit service for the
    disabled.

7. This figure, quoted by De Leuw Cather, is from various
    sources. "Mobility Impaired" implies difficulty in
    obtaining, using, or finding suitable mass transit --
    except for the bedridden, almost anyone can be carted
    somewhere.

8. In the ERG study of the retired in Toronto, 22% of
    the sample (representing 7% of the total population
    by ratio) experience reading difficulties. Thus
    at least $1\frac{1}{2}$% of the population has reading difficulties
    due to age alone.

9. Such classifications by symptom are difficult to use
    as they classify persons as similar when, in fact, the
    within class variation is likely to be as large as
    that between classes. The classification by impairment
    offered below while containing individuals discussed
    as different is pertinent to our stated problem: re-
    lating (functional) disability to communication.

10. Includes (3) and extreme cases of (1), (4) and (5)
    as well as certain types of blindness or deafness.

11. Includes (1), (4) and (5).

12. Includes (6), (7), (8) and (9).

13. TV for example will shortly be available in 99% of
    the towns, cities, and villages of Canada and in the
    next 5 years the entire country will be able to dial
    not only among ourselves but to Aunt Sally in Britain.

2. METHODOLOGY

2.1 The Survey Questionnaire

The survey questionnaire/interview was designed in three phases. First, we created a lengthy list of questions derived from various sources and distributed this list among several individuals and organizations. We asked them to comment on the validity and usefulness of these questions. Ultimately the list of questions was pared to a far smaller number under the following criteria:

a. The interview was to take no more than 1 hour;

b. Questions should not have to be explained at length;

c. No technical questions could be asked as the disabled could not be expected to understand the import of them any better than the average "normal" person;

d. Questions relating to communication, except with regard to media diet, should be short-answer type, but open-ended.[1]

e. Where possible, questions from other sources, such as "Reaching the Retired" should be used intact for comparison purposes.

During this initial phase, we discovered many things about the disabled before we interviewed them. They are in general older and less likely to be college-educated. They welcome interaction, but, in Ottawa at least, the younger ones feel they are over-studied (and consequently under-aided by these studies). Finally, the disabled are hard to locate; word-of-mouth seems to be the best of a lot of inefficient ways to contact them.

During the actual survey we modified several questions because of either answering difficulties or apparent lack of power of questions to distinguish among our respondants. For instance, a question about spare-time activities soon seemed pointless when a respondant had only spare time. In addition, some questions were applicable only in Ottawa (where there is a cablevision program called "Disability") and there were some translation difficulties.

The final questionnaire contains about 100 questions, a mix of multiple-choice and open-ended questions. The questions relate to the following areas:

a. Demographic and social characteristics of re-
   spondants

b. Media habits (Radio, TV, telephone, newspaper,
   magazine, books)

c. Interpersonal communication habits

2.2 Obtaining Respondants

It quickly became apparent that mass-media attempts
to obtain respondants were doomed. An advertisement placed
in Newstand, a local newspaper for the disabled, issued
monthly on a LIP grant, attracted no respondants. It was
hoped that at least some **more** militant involved younger
disabled persons might respond to that advertisement but
these hopes were dashed. Conversations with individuals
working with disabled persons convinced us that only in-
dividual approach would elicit the kind of trust needed.
Finally we resorted to requesting organizations[2] to poll
their own clients and members. This resulted in several
lists of individuals. These individuals were then called
by phone and interviews scheduled. Much the same policy
was followed in both Ottawa and Montreal. However, few of
our Ottawa respondants were institutionalized, while many
of these in Montreal were -- thus the contact mechanism
worked differently.

Each organization supplied a list. In addition,
we had met several disabled persons during the preliminary
interviews and we asked these persons, many young and all
involved in various programs and projects, for interviews.
Overall, few persons refused to be interviewed. We attri-
buted this to two factors. First, many welcomed interaction
with us generally. We found most interviewees pleasant,
cordial and eager to talk; most interviews were enjoyable,
especially in the later weeks of the project when we were
more at ease. More important, however, we feel that the
trust inherited from organizations was important. Our
study gained credibility when the organization had previously
informed the interviewee of our aims and of the fact that
our aims were consistent with their aims. Although this
required several sessions with organizations and a con-
tinual repetition (with refinement) of statements of our
aims and methods with organizational people, this effort
ultimately paid off.

However, this netted only 104 respondants for a
summer's efforts. We compared our efforts with that of
others who had worked these fields before and discovered
that there are no easy answers. Jealously guarded lists
seem to be the lynchpin of this type of study. When the

Regional Municipality asked De Leuw Cather to include disabled persons in their study of regional transportation needs in Ottawa-Carleton, they utilized a pre-existing list of users of a transportation service for the disabled. From this list they got about 70% of their respondants. They literally flooded the rest of the city with advertisements to little avail. Probably far fewer than 100 persons responded to the media campaign, although records were not kept of the source of impetus to take part in the survey.

In a larger study, we would recommend the indirect approach again, with a mail/telephone survey using organization mailing lists for the bulk and a personal interview for those unable to respond. The community resources to "muster" the disabled exist, but they must be carefully utilized if the disabled are to be asked to make their "voice" heard.

2.3 Validity of Results

In addition to the problems previously mentioned relating to the non-random sample, there are questions of the validity of the questions themselves. These questions are of two types:

a. Do the questions actually bear upon what they purport to test? (Are we asking the right questions)

b. Do the answers admit of analysis and generali-

zation? (Are we getting the right answers?)

We feel that for most of the questions, the answers
are "yes". By carefully testing the questions beforehand
and by changing the wording as necessary, we built a set
of questions which illuminate certain areas of communi-
cation behaviour. While there are always problems with
self-report (such as occur when someone is asked to estimate
the number of hours spent watching TV each "typical" week-
day morning), we are not looking for subtle differences
but for major trends. These trends (such as would be in-
dicated by a large number of viewing hours per day) would
be apparent even to the respondant and although such esti-
mates might be harder than estimating "a lot", "some" and
"none" they are at least far less subjective in measurement
unit.

This relates closely to the ability of the re-
spondants to answer the questions. By and large, there
were few problems. While we did include questions with
answers such as "rarely" and "always", we did so knowing
that we were also measuring expectation rather than mere
frequency. Such soft measures are important because they,
not frequency, are what is important to the respondant.

In a sense, they correspond to the respondant's needs rather than ours.

Other questions utilized standard or easily-understood demographic categories. Respondants were asked to indicate income within broad[3] ranges and no one refused. Similarly the age categories were quite broad[4] and presented no problem. With some questions we had to make it clear that we were talking about absolute rather than relative scales, especially when we asked questions concerning skills: a "fair" meant "fair relative to the whole population" rather than "fair relative to what I expect of myself". In general, we found few difficulties in understanding these kinds of multiple-choice questions.

When it came to questions of a more open-ended nature, there were some difficulties. When asked what the single most important problem facing the disabled was, we often had to rephrase the question in a personal way: what is your single most important problem? On the other hand, others asked us to specify "other disabled persons", thereby de-personalizing the answer. While such answers cannot be fully trusted, we did not treat them as a poll, but merely as a list of concerns, listed in order of frequency of occurrence. Questions concerning

film got another kind of response -- almost totally neg-
ative. Without the necessity of coding we can unequivocally
state that film in theatres has no appeal to the disabled
in general. The catalogue of laments is personal and
endless, ranging from poor taste to poor quality, high
prices, lack of access, lack of transportation, etc. Film,
in fact, is a nexus of _all_ the problems facing the disabled!

In this study we present three kinds of data:
interval, ordinal and nominal. Nominal data is a list
with frequencies: number of respondants mentioning poverty
or mentioning access as a major problem. No assumptions
can be made about the comparability of nominal classifi-
cation elements: poverty and access are not comparable.
Ordinal data relates to classes which can be listed in
some order: "rarely" is _less often than_ "sometimes" which
is less often than "often" which is less often than "always".
Ordinal classes can be compared in neighbouring pairs, but
the differences between them are _not_ comparable. In con-
tent, interval data relates to classes which can be com-
pared with fixed differences. While the difference be-
tween "rarely" and "sometimes" is not the same as that
between "sometimes" and "often", the differences between
"1 hr. per day", "2 hrs. per day" and between "2 hrs. per

day" and "3 hrs. per day" are identical: there is a unit
of difference.

In comparing the results of separate groups on
questions of interval, ordinal and nominal data, three
different statistics are useful:

Nominal: mode -- the most frequently mentioned
class

Ordinal: median -- the class which has the same
number of mentions below in order as
above

Interval: mean -- the weighted "average" class value.

These three statistics are illustrated **below and follow-
ing** with sample data. Median and mode are referred to as
"non-parametric" statistics.

Q1: (Nominal). "What do you think of films?"

		%	
1.	Poor taste	25	* Mode
2.	Poor quality	11	
3.	Access	10	
4.	Transportation	8	
5.	Too expensive	5	
6.	OK	3	
7.	Other	14	
8.	DK/NA	24	
		100	

Q2: (Ordinal). "How important is access in seeing films?"

		%
1.	None	43 *Mode
2.	A little	17 ** Median
3.	Some	25
4.	A lot	11
5.	Totally	4
		100

Q3: (Interval). "How many films do you see in a year?"

1.	None	30 *Mode
2.	1	29 ** Median
3.	2	10 *** Mean (2.13)
4.	3	10
5.	4	5
6.	5	4
7.	More than 5	12
		100

For Q1, the only analysis is a list of the cata-
gories in order of frequency of response. "Poor Taste"
had the highest number of mentions: it is the mode.

For Q2, it is reasonable to ask for the response
which, when the responses are arranged in order by class of
"importance", has about the same number of less "important"
responses as more "important" responses. In this case
there are 43 responses less "important" than "a little" and
40 more "important". The mode is "none" which had the
most frequent response.

For Q3, the difference between each class of response
is constant, i.e., 1 film. It makes sense to find the
average response value. The mean is 2.13 films/year. The

median is about 1 film/year as 30 saw fewer and 41 saw
more. The mode, however, is still "none".

Synthesizing an inference from all three questions,
one might say that respondants say they "rarely" go to
films and in fact see on the average less than 3 per year.
the reason they give most often is "poor taste". A typical
respondant, in fact, sees none. Access is not a major
problem. Taste can be the only really important one.

2.4 Characteristics of the Respondants

Eight socio-economic and demographic scales are
presented in Table I to describe the characteristics of
our sample, broken down between the two cities, Montreal
(M) and Ottawa (O). Totals (T) for both cities are also
indicated.

Apparently the two populations differred signifi-
cantly. The Montreal population was significantly younger
(Median age of 32) than the Ottawa group (median of 45).
More Ottawa respondants lived with their families (over
half, while only about 1/5 of those from Montreal did so)
and thus reported family income. This family income is
usually obtained from a non-disabled parent (or child or
relative), thereby significantly boosting the median income
of our Ottawa group (about $8,500 as opposed to the Montreal

median "family" income of about $3,200). Reflecting the
civil-service nature of employment in Ottawa, a greater
percentage of those indicating past employment (over half
for Ottawa) indicated white-collar or professional employ-
ment in the past than for Montreal (about 2/5). Parallelling
this, and probably contributing to it, is the greater
amount of education for the Ottawa group (a median value
of better than a high-school degree) than for those from
Montreal (a median education of some high-school education).
These data stand in apparent contradiction (except as noted)
to the traditionally salutory position of men in employment:
the Montreal sample was about 2/3 male and the Ottawa sample
was about 3/5 female.

While it would be incorrect to characterize each
population in single phrase, a comparison is in order. It
is apparent that the Montreal population interviewed was
more male, younger, poorer, less likely to be supported by
family (parents, siblings or dependents), less well-educated
and less well-employed: this population knew French. The
group from Ottawa consisted of more older females, supported
by their families -- and supported well -- more well-educa-
ted and more likely to possess white-collar and professional
job skills; this population speaks English

Age	M	O	T
Below 15	-	-	-
15-24	24	1	25
25-39	26	11	37
40-64	10	21	31
65+	4	7	11
Total	64	40	104

Sex	M	O	T
Male	39	16	55
Female	25	24	49
Total	64	40	104

Employment	M	O	T
Full time	24	6	30
Part time	7	8	15
Irregular	2	2	4
None	29	22	51
Subtotal	62	38	100
DK/NA	2	2	4
Total	64	40	104

Income	M	O	T
Below 2K	38	-	38
2K-6K	11	16	27
6K-10K	5	6	11
10K-15K	7	9	16
15K+	1	6	7
Subtotal	62	37	99
DK/NA	2	3	5
Total	64	40	104

Housing	M	O	T
Alone	10	8	18
Spouse	13	3	16
Family	14	24	36
Shared	15	4	19
Institut.	12	3	15
Total	64	40	104

Education	M	O	T
None	5	-	5
Element.	16	5	21
Some HS	13	6	19
HS degr.	5	10	15
Some Col.	17	5	22
Degree	8	13	21
Subtotal	64	39	103
DK/NA	-	1	1
Total	64	40	104

Job Type	M	O	T
Clerical	5	5	10
Man-skill	1	1	2
Man-unskil	20	5	25
Profess.	10	9	19
White-Col	8	6	14
Other	-	-	-
Subtotal	44	26	70
DK/NA/none	20	14	34
Total	64	40	104

Language	M	O	T
English	7	21	28
French	28	2	30
Biling.	28	17	45
Eng+other	1	-	-
Total	64	40	104

Table I. Socio-Economic and Demographic Data
(Expressed as number of Respondants)
Expressed by City (Montreal, Ottawa,
and the Sample Total)

One reason for the apparently large differences between the two populations might be accounted for the lack of random sampling. In Ottawa, we interviewed two groups which are in fact more likely to be female and older, groups whose disability generally appears in middle-age and beyond: arthritics and multiple sclerosis victims. Over half our sample (24 of 40) came from this set. On the other hand, in Montreal over half (39 of 64) of our respondants had disabilities which are as likely to strike the youth: blindness and cerebral palsy. The fact that many persons in Montreal were interviewed at institutions for education and rehabilitation merely confirms this.

In addition, the bulk of the rest of the Montreal population consisted of spinal cord injured individuals, whose age distribution (and education and sex, too) should follow that of the population at large.

These data on disabilities, as well as five other scales relating to health and physical dexterity, are presented in Table II on the following page. These data are not broken out by city (except Disability, as noted) and none of the rest of the presentation of data is so broken out. All data, in addition, will be presented in percentages, which, for a population numbering 104, are practically the same as the raw figures.

Disability	Number M	O	T
Multiple Scler.	-	14	14
Cerebral Palsy	18	2	20
Paralysis	21	4	25
Arthritis	3	10	13
Lung	1	1	2
Blindness	22	7	29
Deafness	1	1	2
Speech Loss	-	2	2
Other	-	2	2
Total	66	43	109

(Note: Total exceeds 104 since 5 persons had more than one disability)

Physical	%
Excellent	13
Good	65
Adequate	10
Poor	8
Very Poor	2
Subtotal	98
DK/NA	3
Total	101

Low spirits	%
Never	-
Rarely	20
Sometimes	43
Frequently	38
Always	-
Total	101

Drive car?	%
Yes	16
No	79
Subtotal	95
DK/NA	6
Total	101

Sensory Difficulty (%)	Hearing	Sight
None	87	54
A little	8	11
Some	3	8
Extreme	3	27
Subtotal	101	100
DK/NA	-	1
Total	101	101

Manual Skills (%)	Read	Write	Type	Camera
Good	56	35	31	45
Fair	18	17	14	10
Poor	10	23	9	7
Unable	17	26	45	34
Subtot.	101	101	99	96
DK/NA	1	1	2	6
Total	102	102	101	102

Table II. Skills, Health, and Disability of Respondants

Our Ottawa respondants were asked to indicate the
state of their physical health and to estimate how often
they are in low spirits. As can be seen, they consider
their health overwhelmingly as good or better (probably
discounting the disability as "health"), while they freely
admit "low" spirits (only a fifth of the sample indicated
that low spirits were a rare occurrence). There isn't any
reason to believe that these figures differ much from the
general population, although when compared to the elderly
in Reaching the Retired our respondants are of marginally
better-judged health and somewhat lower spirits (only 11%
of their sample indicated that they were frequently in low
spirits, while fully a quarter stated that they were "never"
in low spirits). Noting the life of the typical disabled
person when compared to the rewards to the elderly in-
herent in seeing a past somewhat roseate in retrospect,
there is some reason to judge this response distribution
for emotional attitude to be fair.

In terms of sensory facility, our sample showed a
remarkable similarity to the elderly in terms of hearing
(87% of ours and about 86% overall of theirs noted some
hearing difficulties) while our sample was significantly
more troubled by eyesight difficulties (46% with trouble
as opposed to about 20% of the retired), allowing for the
fact that many of our sample were chosen precisely because

of their blindness, our sample seems otherwise quite similar.
The elderly seem a likely matching group in terms of sensory facility.

We asked our sample to rate their capabilities in
manual communication tasks, specifically reading, writing,
typing, use of a still camera and use of a portable tape
recorder. One quarter indicated difficulties in reading
(probably due to the blind subsample) but a whopping half
(49%) indicated difficulty writing; similarly 54% said
they would have a lot of difficulty in typing. These last
two figures indicate that the disabled would be far better
receivers rather than senders of printed information. Certainly MS, CP, blindness and arthritis do not aid penmanship. However, a slightly larger percentage indicated
that a camera was fairly usable, again reflecting the simplicity and stylized manner of use of this device. If the
disabled are to originate messages, they had better point
a camera or dictate into a tape recorder (4/5 indicated they
could use this device, although only 64 persons were asked
to rate their use of the tape recorder). Obviously "passive"
transmission is a better mode than active and gross movements of the body are easier than fine movements. This, in
turn, is reflected in the driving skills of our respondants:
only 16% indicated that they do or can drive a car.

In summary it should be pointed out that our demo-
graphic descriptors merely reflect the economic and phy-
sical well-being of our respondants; it is improper to
generalize to all disabled persons. Nonetheless the lack
of surprises seems to indicate that our intuitions con-
cerning economic and physical corelates of specific types
of disabilities in specific situations is correct. With
proper stratified sampling, we could predict most of the
demographics from a description of the spread of disabil-
ities and ages.

FOOTNOTES

1. As an example consider this: "How do you get the books you read?"

2. A list of organizations and contacts appears in the appendixes.

3. We were interested in knowing the spread rather than the mean.

4. Similar to income, the mean age is of little value.

3.   COMMUNICATION

The results of questions relating to communication habits are presented in this chapter. These results are divided into two sections and the related tables of summary frequencies are distributed as follows:

> 3.1   Mass Media Habits
>
> Tables III(TV), IV(Radio), V(News), VI(Books), VII(Special Services), XII(Misc.)
>
> 3.2   Interpersonal Communication Habits
>
> Tables VIII(Telephone), IX(Post), X(Inter-personal Contacts), XI(Interpersonal and Emotional Factors), XII(Misc.).

This distinction is rather arbitrary and depends upon descriptions of the media involved rather than the uses to which they are put by the disabled. Generally, mass media are considered those which involve large, anonymous and mutually anonymous receiver groups ("audiences") and a small number of professional communicators ("Sources") working with expensive origination equipment (such as TV

stations, printing presses, and so forth). Interpersonal

communication involves relatively small groups of mutually

perceivable (if not mutually well-known) sender-receivers

who shift these roles back and forth at will, rapidly. In

mass media "consumption", the receiver has little if any

content control and, most significantly, little control

of the pace of presentation; these two factors figure

most strongly in interpersonal communication (with notable

exceptions such as mail). It is this control aspect which

is most important to consider when a population which is

relatively physically weak and dispersed, as the disabled

are, is to be understood.

In one other aspect, these two types of communi-

cation differ dramatically. Distribution of the mass

media is more-or-less automatic once the receiver equip-

ment is installed.[1] TV programs produce themselves, radio

continues through the night, and the newspaper is delivered

each morning or afternoon. On the other hand, interpersonal

communication, because it is the result of two or more in-

dividuals' conscious decision to get together, is not auto-

matic. It requires some planning and, more importantly,

some skill. The skills range from making friends to finding

out phone numbers to arranging a meeting place, transportation

and cookies, whereas the radio is yours without a threat, other individuals might require coaxing, empathy, and not a little risk on your part. The radio never says "No, sorry, not tonight". One's friends say this often.

One thing to keep in mind, therefore, is the potential that the mass media -- and some assisted interpersonal media such as telephone or envisaged services such as stop-and-forward message sending -- have for putting skills on the back burner or even off the stove altogether. While McLuhan might maintain that media are extensions of man^2 it's not clear that the rest of man stays static while these extensions take over. When overall self-concept has suffered, what must the role of the media be: replacement, enhancement or removal?

3.1 Mass Media Habits

The specific mass media asked about are TV, radio, newspapers (and TV and radio news), magazines, and books. Naturally several, more specialized, mass media were ignored (billboards, skywriting, and leafletting). Each medium is discussed separately.

3.1.1 Television (Table III)

Only 7% of our respondants had no access to TV, most of these blind. Over a third of our respondants, in

# of TVs	%
None	7
One	56
Two	33
Three+	5
Total	101

Equipment	%Have
Cablevision	48
Remote Ctl.	10
Colour Set	41

Time watched	Morn	Aft.	Eve.	Total
0 hrs.	83%	62	8	} 7%
Up to 1 hr.	7	17	26	
1 to 2 hrs.	6	14	16	24
2 to 3 hrs.	2	4	47	41
3 to 4 hrs.	-	-	-	17
4 to 5 hrs.	-	-	-	9
5 to 6 hrs.	-	-	-	1
7 hrs. +	-	-	-	1
Subtotal	97	97	97	100
DK/NA, unavail.	4	5	5	2
Total	101	102	102	102

TABLE III. TV Data (% of Respondants)

# of Radios	%
None	-
One	64
Two	23
Three+	8
Subtotal	95
DK/NA	5
Total	100

Positive Eval. of Prog. Preference	
Interview	63%
Drama	33
Open-Line	36
Religious	27
News et al	82
Music	90

Time Listened	Morn	Aft.	Eve.	Total
0 hrs.	22	37	39	} 6
Up to 1 hr.	37	23	25	
1 to 2 hrs.	14	11	14	28
2 to 3 hrs.	16	14	13	21
3 to 4 hrs.	12	15	9	16
4 to 5 hrs.	-	-	-	11
5 to 6 hrs.	-	-	-	3
7 hrs. +	-	-	-	16
Subtotal	102	100	100	101
DK/NA, unavail.	2	4	2	2
	104	104	102	103

TABLE IV. Radio Data (% Respodants)

general Ottawans living with their families, had access to
a second television. Few (10%) had some sort of remote
control device on their TVs to enable them to switch
channels or correct the image or sound; however, 2/5
(again with our relatively more wealthy Ottawans over-
represented) had colour TVs. About half had access to
cablevision. In Ottawa, cablevision is generally available
to the population and is likewise generally available (over
75%) to our Ottawa respondants but not (less than 30%) to
those in Montreal.

In total, our respondants' median TV viewing over a
day amounts to a little more than $2\frac{1}{2}$ hours (almost $3\frac{1}{2}$ in
Ottawa), with viewing time increasing during the day from
morning to evening. About a quarter of our respondants say
they typically watch over 4 hours per day (that's more than
30 hours per week, considering extended viewing on the
weekend, if BBM statistics can be extrapolated).

Our figures compare remarkably well with those from
the RtR sample. Their median daily viewing time is about
$2\frac{1}{2}$ hours and the time distribution over the day matches
very closely: modal amounts of viewing in their sample
were little or no watching in the morning and afternoon (77%
and 50% respectively) and 3 hours or more (34% in the

evening). In terms of the number of TVs, access to cable, and time watched, the retired and the disabled appear similar.

3.1.2 <u>Radio</u> (Table IV)

All of our respondants had access to and listened to radio. One in three had access to several radios. However, unlike the retired, our respondants listened to a lot of radio. In fact, our respondants' median radio listening was about $3\frac{1}{2}$ hours. That is, half of our sample listened to less than $3\frac{1}{2}$ hours of radio per day and half listered to more. Almost a third of our sample listened to 5 hours or more of radio each day. Obviously radio affords our respondants far more involvement than it does the retired (Mean listening was 1.8 hours compared to our mean of 3.8 hours). Perhaps the relatively larger number of persons with eyesight problems contributed to this, although it was not generally the case that the blind, per se, listened to more radio.[3]

Radio listening is highest in the morning, falling slightly toward evening (the retired seemed to listen to radio slightly more in the evening than in the afternoon, possibly reflecting a superior ability to get around outside

during the peak shopping and business hours of the after-
noon).

Preferences for various programming offerings on
radio were remarkably similar to the retired. Radio is
obviously seen as a music and news medium. Almost 2/3 of
our respondants expressed interest in interview-discussion
type programming (of the "As it Happens" type) while a
similar proportion expressed dislike of open-line (audience
phone-in) interview type programs. In all categories except
news and music, our respondants were far more able to
express preference than the retired. (We had about 10%
DK/NA response as opposed to the retired DK/NA proportion
of 20-50%). This probably reflects the greater experience
with radio which the disabled have. Only the category of
religious programming elicited a different type of response
from the disabled than from the elderly. While only 23%
of the elderly expressed little enjoyment of such programming,
60% of ours did so. This is probably due to the relative
youth of our sample, as well as the non-religious trappings
of the survey backers. (The RtR survey was initiated by
the United Church of Canada).

Apparently radio is seen, and used, by the disabled
as a source of musical background and easily, instantly

accessed news of an impartial type. Non-musical entertainment is not a function of the radio for our disabled respondants.

3.1.3 <u>News</u> (Table V)

Several aspects of the news were looked at. In terms of newspapers, over 3/4 of our respondants indicated that they regularly receive newspapers, generally delivered to the door or purchased at a newsstand (the first the mode in Ottawa; the second, in Montreal). Our respondants spent about an hour daily reading their newspapers (about $1\frac{1}{4}$ hours when non-readers are excluded). But they have some problems physically manipulating the newspaper (holding and turning it, finding the energy to read) beyond the difficulties experienced by the blind and poorly-sighted. Because of this, our respondants generally use the newspaper less often and for less time than the retired. Possibly the effort doesn't justify the cost for many, especially when the radio is at hand.

In this regard, 2/3 of our respondants are heavy consumers of radio news and 5/8 of television news. It would be hard to estimate how much time is spent in these endeavours, but the 11 pm news shows would take up a half

# of Papers	%	How Obtained	%	Difficulties	%	Time Read	%
None	20	No access	11	None	54	None, don't	18
One	46	Delivered	47	Holding up	8	½ hr. or less	22
Two	23	Newsstand	23	Turning	11	½ to 1 hr.	26
Three+	7	Borrowed	3	Reading	-	1 to 1½ hrs.	12
Subtotal	96	Sent for	3	Physical	20	1½ to 2 hrs.	8
DK/NA	5	Subtotal	87	Visual	2	2 to 2½ hrs.	2
Total	101	DK/NA	13	Can't read	-	Subtotal	88
		Total	100	Subtotal	95	DK/NA	12
				DK/NA	9	Total	100
				Total	104		

TV News Freq.	%	TV News Time	%	Radio News	%
Don't watch	15	Don't	15	Don't list.	17
lt. weekly	2	Morning	3	lt. weekly	
weekly	1	Evening	9	weekly }	7
Sev./week	20	Night	38	Sev./week	11
Daily +	57	Sev./Day	43	Daily	34
Subtotal	95	Subtotal	98	Sev./day	32
DK/NA	7	DK/NA	4	Total	101
Total	102	Total	102		

# Magazines	%	Mag Read Freq	%
None	47	Never	35
One	13	lt. weekly	9
Two	18	Weekly	13
Three+	21	Sev./week	11
Subtotal	99	Daily	6
DK/NA	3	"Regular"	10
Total	102	Subtotal	84
		DK/NA	18
		Total	102

TABLE V. News (Newspapers, TV, Radio, Magazines) Data
(% of Respondants)

hour and radio news on the stations indicated range between 5 and 15 minutes per hour (Table XII indicates that CBO and CFRA top the popularity list in Ottawa -- both are heavy news stations). It would be a rough estimate that our respondants consume about 2 hours of news daily. News sources would include newspapers (an hour), radio ($\frac{1}{2}$ hour) and TV ($\frac{1}{2}$ hour), but not magazines. Respondants indicated little preference for magazines -- almost half regularly receive no magazines and over a third never read magazine articles. Only one in four indicate reading of articles more often than weekly. These figures compared very closely with the retired. Perhaps the expense of acquiring hard-copy news reduces the attractiveness of magazines. Perhaps, also, the reduction of interpersonal contact beyond a small circle of intimates or family along with the relative lack of vocational contact contributes to the lack of desire to consume the more specialized "news" found in magazines.

Our sample utilizes news media marginally less than the retired (67% of the RtR sample watched TV news daily or more often and 73% listened to radio news at a similar consumption level; newspaper reading times showed a mean of over 1$\frac{1}{4}$ hours over the week daily). I would estimate that the retired consume about 2$\frac{1}{2}$ hours of news daily and this difference might well be due to a higher interest in outside events owing to more social and vocational contacts, although the difference is small.

3.1.4 Books (Table VI)

Although 75% of our respondants indicated that they read books at least occasionally, almost half complete only one book or less per month. One in four consume three or more books each month, generally obtained from libraries and bookstores. Several use special services, especially those supplied by the CNIB through talking books or braille. Half of our respondants had some difficulties with books including holding and seeing them. They employed a variety of reading aids (book holders, electronic and optical magnifiers and page turners) -- these being supplied by therapists, friends, and in the case of blind respondants by the CNIB. The group in residence at the CNIB in Montreal has available a variety of electronic and optical aids. Books are quite important to younger persons in terms of their education, while the older ones, especially those who do not work or have never worked, will obviously utilize books more for entertainment.

3.1.5 Special Services (Table VII)

Few respondants make use of special services or programming of the mass media for their benefit. For instance, 40% of our respondants had not heard of mobile library services available to them (In Ottawa, a special

Books Monthly	%	Difficulties	%	How Obtained	%	Book Aids	%
None	31	None	50	No access	8	None	68
One	17	Holding	15	Library	31	Holder	7
Two	17	Turning	2	Bookstore	38	Large Print	–
Three	7	Seeing	24	Borrow	21	Page Turner	4
Four+	18	Physical	1	Bookmobile	1	Braille et al	7
Subtotal	90	Visual	7	Sent for	3	Electronic	6
DK/NA	13	Can't Read	3	Book Club	3	Magnifier	5
Total	103	Subtotal	102	Mail (CNIB)	7	Tape Cassette	1
		DK/NA	3	Other	1	Subtotal	98
		Total	105	Subtotal	113	DK/NA	6
				DK/NA	8	Total	104
				Total	121		

TABLE VI.   Book Usage Data (% Respondants)

Mobile Library	%	Newsstand(0)	%	Specials(M)	%	DISABILITY(0)	%
Yes, use it	4	Not heard of	13	Have read	38	Not heard of	18
Heard of it	50	Heard of	10	Haven't read	38	Heard of	20
Not heard of	40	Can't get	23	Subtotal	76	Can't get	33
Subtotal	94	Read one or	10	DK/NA	24	Seen a few	18
DK/NA	8	Read several	15	Total	100	See regularly	–
Total	102	Read all	13			Subtotal	89
		Subtotal	84			DK/NA	11
		DK/NA	16			Total	100
		Total	100				

TABLE VII.   Special Services Data
(% of Respondants)

section of the Ottawa Public Library is set up to provide
this service upon request in your home). Only about one
in three respondants in Ottawa had ever read an issue of
Newsstand, a newspaper published monthly by the disabled
for the disabled on a LIP grant and distributed through
organizations and by mail. In Montreal only 38% indicated
that they'd ever read any special publication or journal
for the disabled. Only 18% of our Ottawa respondants had
ever seen the cablevision show "Disability" -- and none
were regular watchers.

There are several possible reasons. Lack of
publicity is certainly one. Although the OPL has bro-
chures, it was a small effort on my part to get enough
information to satisfy myself about how to use the service.
"Disability" was not advertised and Newsstand was publicized
by word-of-mouth. Distribution of these offerings was
also ineffective. "Disability" was available only to cable-
vision subscribers and appeared at an awkward time, 5:45 pm,
during the evening dinner hour every other week. In addi-
tion, "Disability" lacked the corporate links[4] we found
necessary to lend an air of credibility to its content.
Newsstand was distributed through organizations which re-
ceived large bundles (3000 copies of each issue were bundled
up and delivered to offices each month) and had the responsibility

of seeing that their clients and members received copies.
There is no distribution to the general populace -- in
fact the commercial nature of the news media make it nearly
impossible to find a way to distribute a publication such
as Newsstand to the general public at a small enough cost.

Finally, there is a question of clientel. While
the activists and the concerned might subscribe, tune in
or participate, there is little more reason for the average
disabled person to consume these special services than the
average non-disabled person. Needs are personal and
immediate, mediated through the persons in one's immediate
environment. There is no sense of community generally
among the non-institutionalized disabled and no sense of
community information. Thus Newsstand and "Disability"
do not serve a cohesive group and, more to the point, they
don't serve a group maintaining mutual interests in issues
or each other.

This is not to say that such mutual interest might
not be created -- that is certainly one feasible goal for
these special media programs -- just that there is currently
no such community spirit. Perhaps there are not community
"issues" or community relationships. Perhaps the general
isolation resulting from lack of mobility and educational
and vocational interests reduces the formation of a community

of disabled as much as it reduces any participation in community. It is apparent, in any case, that extraordinary efforts -- and extraordinary support -- are necessary to create and foster this community. The alternative is specialized programming, with its attendant diversified audiences and advertising needs.

3.2 Interpersonal Communication Habits

We asked several questions about communication on an interpersonal level, both face-to-face and technology-assisted (mail and telephone). Each situation is discussed separately below.

3.2.1 Telephone

None of our respondants were denied phone access. Overall 2/5 had access to more than one phone, although the percentage having multiple access was far higher in Ottawa (62½%) than in Montreal (27%), perhaps reflected in a higher degree of sharing of family phones (and thus extensions). Overall, 79% of our respondants had a phone of their "own" (their own or their family's) while about a quarter had to use a shared phone or a common one with strangers.

Telephone difficulties generally revolved around dialing and using the directory. One important difficulty is that it takes longer for less-mobile individuals (those

with paraplegia, quadraplegia, arthritis, MS, and CP) to
answer the phone. One respondant estimated that 20, rather
than the usual 10, rings should be allowed when calling
someone you know is disabled. To relieve dialing diffi-
culties, the digitone (or "touchtone") key pad is available.
The directory problem is solved using directory assistance,
although an advance registration is required to avoid
charges for this service -- not everyone knows this. "High
technology" phone devices were not generally used; only
two had hands-free devices.

Our respondants seemed to make about a phone call
per day (around 5-6 per week). This seems to be a smaller
activity than that of the retired -- 52% of the RtR sample
made several calls per day while only 18% of ours did so.
This might be explained by two independent causes. First,
our respondants have less energy and more pain to make
calls; the motivation to use the phone is less positive.
Second, they have fewer contacts to start off with. Those
who live with their families need not call them. Those
who do not leave their dwellings have fewer places to call
about and fewer places at which to have made acquaintances
requiring subsequent calls. The verification of the second
explanation is discussed in the Contacts section later.

#Phones	%	Whose Phone?	%	Difficulties	%	Devices	%	Frequency	%
None	-	My own	38	None	71	None	80	Never	7
One	59	Family's	41	Answering	6	Digitone	12	Weekly	11
Two	33	Shared	9	Dialing	19	Amplifier	3	Sev./wk	23
Three+	8	Common	18	Directory	12	Speechaid	1	Daily	42
Total	100	Subtotal	106	Hearing	5	Hands free	2	Sev/day	18
		DK/NA	1	Total	113	Several	2	Subtotal	102
		Total	107			Subtotal	100	DK/NA	1
						DK/NA	1	Total	103
						Total	101		

TABLE VIII.   Telephone Data (% Respondants)

Use of Postal Services for...	%Y	%N	%DK/NA
Bank-by-mail	18	82	-
Correspondance Course(s)	20	81	-
Catalogue Ordering	43	57	-
Letters to editor, MP, etc.	26	73	1

TABLE IX.   Postal Data (% Respondants)

3.2.2 Mail

We asked only four questions concerning use of mail. The only service available by mail to replace in-person service was catalogue ordering. 43% of our respondants had placed catalogue orders. A quarter or less had at some time banked by mail, taken correspondance courses or written to editors, MPs, TV stations, etc. The mail seems to be a bill-payment and personal correspondance medium.

3.3.3 Interpersonal Contacts

We were interested in respondants' evaluations of frequency of contact with a variety of individuals representing several personal contact categories. In particular, we asked respondants to judge their frequency of contact on a person-to-person basis with the following:

a. Personal physician

b. Social worker

c. Rehabilitation counsellor

d. Family members

e. Members of social or church clubs

f. Personal friends

g. Teachers

h. Clergyman or church official

i. Agents of organizations for the disabled (or members)

These roles represent a range of personalization of contact.
For instance, contact with friends or family members is
quite intimate and certainly (in general) far less threatening
than the more professional contact represented by clergymen,
social workers or counsellors. These last represent
authority figures whose trust is acquired because of their
social role, while the first acquire trust from personal
involvement. Teachers, club members and others fall some-
where in between: their trust is acquired through a mixture
of personal contact and socially defined authority.

As expected, family members and friends are seen
most often (our respondants see them daily at a 50% and
25% proportion respectively). Most of our respondants see
the authority figures infrequently: over 3/4 of our re-
spondants see their physician, a social worker, a rehabil-
itation counsellor less often than monthly. In fact, over
half of our respondants never see a personal physician,
a social worker, a rehabilitation counsellor, any social
or church club members, a teacher or a clergyman. However --
probably owing to the nature of our sampling -- about 40%
have regular, at-least-monthly contact with an organization
for the disabled and one in five have some contact with
education.

Interpersonal Contact	Never	One/ Year	Sevl Year	Less Than 1/ Mo.	One/ Mo.	Sevl Mo.	Less Than 1/ Wk.	One/ Wk.	Sevl Wk.	One/ Day	One/ Wk or More	DK/ NA
Personal Physician	24	28	24	76	10	4	14	5	6	1	12	-
Social Worker	68	9	6	83	3	4	7	3	2	2	7	3
Rehab. counsellor	71	4	4	79	5	1	6	1	2	2	5	10
Family Members	7	1	8	16	6	10	16	11	8	50	69	-
Social/church clubs	59	-	2	61	8	6	17	8	8	3	19	5
Friends	29	-	1	20	2	6	8	18	16	25	59	4
Teachers/instructors	68	1	1	70	-	1	1	1	4	14	19	10
Clergy or Church	59	2	3	64	6	1	7	17	4	7	28	3
Disabled Organizations	46	5	5	56	11	9	20	10	4	6	20	7
Volunteer Work	56	--4--		60	5	8	13	6	4	5	15	14
Get out of Dwelling	2	--7--		9	2	9	11	7	25	50	82	-

TABLE X. Interpersonal Contact Data (% Respondants)

Table X compares the frequency of interpersonal contact with frequency of volunteer work and getting out of the house of apartment. Noting that 30% of our sample is employed full-time and 20% have some employment, it seems apparent that a large number of the 75% who get out of their dwellings several times a week do so for employment. Many of the other outside visits are for shopping. Probably no more than 20% of visits made by our respondants are intended for interpersonal contact solely. For the 20% of our sample which gets out less often than weekly, it seems reasonable to suspect that a large proportion of these visits are to professional type services; otherwise friends, relatives, and others come to them.

Table XI shows that 22% of our respondants indicated a great deal of interference in their mobility from their disability, while over one in three don't consider their disability disabling to their mobility. Comparing this data with the "Get out of Dwelling" data, it seems that there is a significant proportion of our sample which is "mobility isolated" with few interpersonal contacts and little chance to actively pursue new contacts because of their disabilities.

3.2.4 Isolation and Communication

A measure of this isolation is seen in the response
to questions concerning electronic pocket calculators.
These devices are seen everywhere. Over the past six or
seven years they have come from a curiosity costing several
hundred dollars to a Christmas stocking-stuffer of three
to ten dollars' value. Even six-year-olds know how to use
them. Yet only 17% of our respondants possess one and 18%
have never heard of them! Granting that our respondants
in general do not work, are not technically or mathematically
bent, and have fewer free dollars to purchase an otherwise
useless gadget, it's still astonishing that they would not
know about them through the media. When the 56% who either
owned or had heard about the device were asked where they
found out about them, few (less than 40%) mentioned the
media and most of those mentioned the newspaper. The per-
sonal communication channels represented by friends and
relatives accounted for almost half the influence, while
the work situation and shopping accounted for 18% more.
For those who do not read the newspaper, information about
innovation probably arrives by voice from friends and rel-
atives. If these friends and relatives are themselves ill-
informed, the disabled stay ignorant of innovation.

Two other types of data might illuminate the position
of the disabled. About one in four have difficulty reading
or writing personal correspondance. Almost one in ten have
difficulty requiring assistance in telephoning and a slightly
larger proportion have troubles with the newspaper. Over
a third cannot get their own books. This means that pro-
bably two in five of our respondants rely upon someone else
-- probably a friend or relative -- to interact with the
world for them as a medium of communication. When the aid
is not present, the disabled cannot utilize the media. A
passive medium such as radio or television requires little
help ever; these media are always available. But active
media like books, the post and newspapers and telephones
may require aids in the form of another human being. This
simultaneously makes these channels less available, more
threatening and yet more personal -- in the form of the
aiding person. On the other hand, this reduces privacy
and the freedom to choose.

The disabled were asked to indicate the most important
problem they face (several mentioned two and three). Three
strong concerns, no surprise to anyone familiar with the
disabled, emerged. Isolation, poverty, and self-image
seemed the nexuses of the problems. Isolation arises from

lack of mobility and the reaction of others to the disability, as well as a lowered self-image. Poverty occurs when individuals are cut off from careers or educational opportunities leading to careers. Self-image and the reaction of the normal population depend upon individual reaction to disability by the disabled themselves, their friends and relatives and the public at large. Only a few mentioned very concrete things such as access to specific services and buildings and difficulties in obtaining transportation. Obviously these three concepts are deeply intertwined into an abstract whole which affects all aspects of the life of the disabled.

Communication, of course, becomes a central unifying concept. Isolation is lack of communication, caused directly through lack of mobility and jobs (denial of active contact) and the reaction of the public and the disabled themselves (reinforcement of the passive reliance upon others' good will). While some political issues were raised (such as housing, integration with the normals and access to education), most complaints centered around the cage of lack of contact, money, and will.

Interference by Disability in Getting Out	%
None, never	35
Rarely	19
Sometimes	24
Frequently	14
Always, impossib.	8
Subtotal	100
DK/NA	2
	102

Pocket Calculator Information	%
Own? Have Access	17
Heard of if don't own or access	48
Definitely never heard of	18

Source of Information about Calculators	%
Friends	33
Relative	14
In store or elsewhere	11
Newspaper	22
At work	7
TV	4
Radio	7
Magazines	2
Total	100

Requiring Others to Help with Activity	%
Telephoning	8
Writing letters	23
Reading letters	23
Obtaining books	36
Reading Newspaper	13

Most Important Problems Facing the Disabled	%
Interaction, isolation, activity	20
Mobility, transportation	16
Poverty, lack of employment	14
Reaction, attitude of public	11
Integration with "normals"	9
Self-Image, emotional problems	13
Access to buildings and services	11
Dependence	9
Others, various	19
	122

TABLE XI.   Interpersonal and Emotional Factors
Data (% of Respondants)

71

Telecommunication Device Location	Phone	TV	Radio
Bedroom	52%	32	72
Kitchen	21	2	22
Living Room	33	35	18
Study, den, Fam.	5	4	3
In another's lodg.	10	3	-
Hallway	13	-	-
Other	4	12	3
DK/NA,weren't asked	1	20	2
Total	139	108	120

Total Mass Media	%
3 hrs. or less	20
3 to 4 hrs.	8
4 to 5 hrs.	8
5 to 6 hrs.	10
6 to 7 hrs.	8
7 to 8 hrs.	20
8 to 9 hrs.	10
9 to 10 or more	18
Subtotal	102
Can't estimate	2
Total	104

Ottawa Radio Station Poll	%
CBO	27
CFRA	23
CFMO	17
CKOY	17
CBO-FM	15
CFGO	10
CJRC	8
"FM" stations	8
Other	13
Total	128
DK/NA	13
Total	151

TABLE XII.   Mass Media Usage Factors Data (% Respondants)

FOOTNOTES

1. The Newspaper's "receiver equipment" is the daily delivery. Magazines are "received" in the mail. Books might be an exception, as one must usually actively seek them.

2. Understanding Media: The Extensions of Man.

3. Our sample was too small to make a statistically valid statement concerning this "substitution". Many blind persons stated that they "watch" TV by listening to it.

4. On the other hand, "Coming of Age", a cablevision show aimed at the retired is produced by the Ottawa Senior Citizens' Council.

4. RELATING HABITS TO NEEDS

4.1 Media Usage and Needs of the Disabled

Below are arrayed figures illustrating cumulative percentages of respondants engaging in certain activities.

Cumulative % of Respondants Engaged in

At most ...	Leaving Dwelling	Using Phone	Visiting Friends	Reading[1] Magazine	Seeing[1] TV News	Hearing RadNews
Never	2	7	29	42	16	17
Rarely......	9	.	.	.	.	.
Yearly......	.	.	.	.	.	.
Sev./yr.....	.	.	30	.	.	.
Monthly.....	11	.	32	.	.	.
Sev./mo.....	20	.	38	52	18	.
Weekly......	27	18	56	68	19	24
Sev./wk.....	52	41	72	81	40	35
Daily.......	100	82	100	100	100	69
Sev./day....	.	100	.	.	.	100

The figure 20 in the first column means that 20% of our respondants left their dwellings **at most** several times per month   Likewise the 27 means that 27% left **at most** weekly.

The outstanding observation of this table is that the more exerting the activity, and the more positive, active steps that must be taken to engage in that activity, the less frequently is that activity to be engaged in: leaving the dwelling, visiting friends and reading magazines occur by far less frequently than seeing TV news, hearing news on the radio or using the phone. The more passive the activity, the less likely our respondants are to resist use.

Most telling is the distribution of total mass media usage among our respondants, indicated in the chart below:

Time	%	At most Cum%	At least Cum%[2]
Up to 3 hrs.	20	20	102
3 to 4 hrs.	8	28	82
4 to 5 hrs.	8	36	74
5 to 6 hrs.	10	46	66
6 to 7 hrs.	8	54	56
7 to 8 hrs.	20	74	48
8 to 9 hrs.	10	84	28
10 hrs. and more	18	102	18

As can be seen, almost half our sample spend at least 2/5 of waking hours consuming the mass media and two out of three spend a third of their day in this way. For about a

third of the sample, (28%) mass media consumption ranks on a par with household chores (cooking, cleaning, running errands) which a normal person might engage in on a fairly busy day. True, much of radio listening (about 3 hours per day) is simultaneous with other activities. Nonetheless, it must be said that, in comparison to other activities and in light of the probability of reduced freedom of choice of activities, the use of the mass media plays the major role in the daily life of the typical disabled individual in our sample.

Hearkening back to Table XI, a reason for this high usage figure[3] would be the relative lack of choice that the more severely disabled have in outlets for their time: without jobs or mobility and having lower self-esteem, they are truly limited in what kinds of interactions they may choose to participate in. However, for the less severely disabled, especially those who are employed full-time, mass media usage probably does not differ from that of "normals".

On the other hand, there is a strong feeling among the disabled individuals we interviewed that isolation, dependence, and lack of mobility are constant problems which must be overcome, if not compensated for. We did not

poll our sample as to desired solutions to these problems,
however; thus it's not clear how best to remedy the problems
from a technical viewpoint.

A comparison with other minority groups might be
helpful. The Blacks in the U.S. share some of these problems,
to a lesser extent now, of course, than in the past. Iso-
lation (by law in some areas), economic dependence and lack
of mobility as well as lack of self-esteem (or more correctly,
limited self-esteem, as Blacks were usually welcome to excel
in certain areas, such as music) were their lot. Part,
though not all, of the change came about through the efforts
within the Black community. This certainly depended upon
the increased opportunity they found to shed their anonymity,
to come into the limelight and to communicate with each
other. Part of the repair came about through propaganda
work and education of the larger white community, especially
through positive experiences with more well-educated Blacks
and negative experiences with the fruits of black frustra-
tion. Alternating fear (of violence) and reassurance (by
assumption of middle-class values among upward-mobile Black
families) as depicted through the media by both Blacks and
Whites in news, documentary, and fiction gradually desensitized
whites to their fears and resensitized both Blacks and Whites
to the valid aspirations and rights of the Blacks. Finally,

legal repair, first through removal of negative legislation (such as repeal of the poll tax, U.S. Government supervision of local voting, reversal of the separate-but-equal doctrine, etc.) and then later through positive legislation (equal rights bills, affirmative action laws, open housing legislation) opened employment, education, and social (recreational, civic, and entertainment) arenas to Blacks.

Although the blot of 250 years of persecution hasn't been removed, these three activities (self-informing, propaganda, and legal activities) have shown their effectiveness. It could be proposed that the Disabled represent, as the Blacks do, a sizable discriminated-against minority and that similar tactics would be effective in removing that discrimination and the self-fulfilling prophesies engendered by it, without directly correcting the disability itself.

Specifically, we would propose that there are three ways in which increased communication opportunities might benefit the disabled.

> a. Through access to information about disabilities, the life of the disabled and an interchange of needed information concerning rehabilitation, legal statutes and daily life activities, the disabled can individually access each other -- if desired -- and thus begin to increase self-

awareness, self-respect, and self-esteem. These
traits are necessary for improving daily life
alone and for entering into the more profitable,
but threatening, interactions mentioned below.

b. By making information available to the general
public about disabilities and the abilities (i.e.,
the humanness) of specific disabled sub-popula-
tions through production of shows, materials,
and publications, the disabled can make them-
selves known to the general population. Per-
haps this will threaten the general population
or perhaps it will reassure them. In any event,
the disabled deserve the opportunity to try to
create messages: they need access as sources
to the media.

c. The disabled might utilize the media to augment
the organizational structure already existing,
but sadly lacking in direction in some areas.
For instance there are fund-raising, research,
self-help, medical, social, and therapeutic organ-
izations for the disabled. There are some
political groups, also. However, on a local
level the usual dynamic of organizations -- namely

a few do all the work and the bulk scarcely contribute -- is doubly debilitating to someone who is difficult to contact, interact with and involve. This benefit -- which is a choice among the general populace -- is denied many of the disabled because involvement is difficult and painful. When the few lead the able-bodied, they have a mandate. When the few lead the disabled, they don't necessarily have such a definite mandate. From a social and political point of view, governments in a democratic society have a responsibility to provide an organizational voice to groups which are denied the facility to speak organizationally. One way to do this is to encourage and foster in an active way media projects by the disabled for their own social and political ends, even when these ends are at variance with existing organizations. Otherwise these voices will never be heard.

While it is impossible to state the exact relationship between the media habits of the disabled and their needs, it should be apparent that they are skilled users, as receivers, of television and radio and that whatever needs

are being satisfied (be they time-filling, hedonism, information, vicarious social contact, etc.), the disabled attend these media. There is no question, however, that what they get from these media is directly relevant to their individual lives: we know TV is aimed at a common denominator and that radio, while serving more special interests, is valued mostly for music and news. It is quite likely that latent needs, beyond those normally found in the general population, are not being satisfied. In specific terms, the following are needed:

      a. Social contact of an appropriate nature, intensity and physical-emotional cost;

      b. Economic opportunity in vocation;

      c. Access to education;

      d. Physical comfort in diverse activities.

The mass media themselves are potentially isolating; they do not provide primary human interaction. Radio talk shows are not satisfying but interview-discussion programs are; the first depicts a high-conflict, threatening situation while the second more nearly corresponds to a situation involving mutual respect, interest, and purpose. This shows that even the isolating aspects might be reduced by proper programming.

On the other hand, the media can reduce distance and time through electronic-speed mediation. TV can provide an alternative form of education. Computers, mediated over telephone lines, can provide employment as well as educational opportunities. The telephone, with proper instruction, augmented with aids (audio-dial, hands-free dialing, recording devices, conference calling, etc.) can vastly increase one's sphere of interaction and can be used to plan for and smooth over future face-to-face interaction. Using the phone can reduce painful trips and exposure to threatening environments.

These opportunities exist already and it is merely a problem of training individuals who work with the disabled in their potential. Knowledge of how to use these media to further specific aims in education, vocation, homemaking, therapy and recreation -- even as mere planning tools -- might increase the "powers" of disabled individuals and the alternatives available to them.

However, it is in the realm of future offerings which a greater pay-off could be available -- however at a far higher cost. Individuals require individualized aids in particular circumstances. This tailoring will increase the cost and decrease the general usefulness -- in the areas

mentioned -- of new high-technology devices. In order to
evaluate the value of specific systems, services and devices
(SSDs), it will be necessary to include not only the size
of the potential population (and for this proper data must
be made available), but the skills and expectations of that
population. An SSD designed for a specific purpose, say a
Radio Talking Books for the Blind service, might benefit
only the blind (and only a specific few depending upon
programming), but as was shown by experience in the States,
a large number of non-blind reading-handicapped persons
require a similar service and could profit from it. Cap-
tioning for the deaf on TV could provide, through cable-
vision converters, the possibility of bilingual captions
depending upon the choice of channel -- in fact captions
could be a digital service not unlike stock reports, air-
craft schedules and other changing alphameric displays
currently offerred to far smaller populations than the
disabled.

Each SSD must therefore not be seen as a particular
service but as one potential influence in a network of in-
fluences is the daily life of the disabled, one in fact
which might draw the disabled closer to other populations
such as the retired, the young, foreigners, housewives and
others who for some non-physiological reason are denied

access to physical services. For that reason it is important to consider other aspects of the SSD than the population size. One should look at certain functional questions, which might make the SSD relevant to other populations or situations:

a. The skills necessary to use and then learn to use it.

b. The social utility of the SSD.

c. The potential of the SSD to disturb an otherwise well-ordered life.

d. The potential of the SSD to change its users' expectations.

e. The number of alternative situations that the new SSD opens up, including human interaction.

Two Federal departments seem crucial here. Health and Welfare and the Department of Communication need to trade information. Specifically, H&W should be made aware of the range of possibilities of SSDs which DOC can foster. DOC, on the other hand, should have available the services of someone familiar with disabilities and rehabilitation. Thus each new SSD could also be viewed in terms of the disabled. Examples of existing SSDs which should be looked at in this light are cablevision converters (and the possibility of subsidy), electronic pbx-type services for the

home phone, two-way cable television, facsimile devices, message-answering systems, and GSR radio services. Coming over the technological horizon are home computer systems (beyond electronic games), pay TV (or information-retrieval television), electronic mail, private publishing (through video storage and retrieval) and holographic transmission. Wherever these systems can be designed with the _abilities, needs, expectations, and living situations_ of the disabled in mind, the existence of _special_ services, systems and devices becomes a moot point.

In the area of specific replacement systems (systems which take over lost articulatory and sensory abilities) there is no question of usefulness, only cost. Where such systems can be coupled with existing general systems (such as the coupling of the "visual ear" with telephone systems) the isolating aspects of the media are overcome and the device becomes a valid extension rather than a mere replacement.

4.2 DOC and the Handicapped

In light of the evidence of specific and general needs and abilities of the disabled, what are the possibilities of the DOC's contributing efforts in this area? We feel that the DOC has a mandate and skills in three functions: technical, advisory, and policy-making.

In terms of technical expertise, the DOC may act as a supplier and broker of information. Certainly little that is new in communication hardware will escape the attension of the Department. In addition, as a broker of information and expertise, the DOC can match seeker with supplier. In practical terms relating to the Disabled, a group of disabled individuals -- or a group operating for the benefit of the Disabled -- might look to the DOC as a source of technical expertise or sound referral to such a source. In addition, the DOC can refer Federal and provincial administrative units to appropriate sources of information.

As a policy-making organization, DOC has a responsibility to see that future telecommunication advances are utilized not only for worthwhile purposes but also for the potential benefit of specific populations. Such policies must be based on as good data as is available. With re-

spect to the Disabled, DOC can and should create policies
promoting satisfactory access to telecommunication facili-
ties for this specific group as much as it does for others.
Where new SSDs are to be developed, the impact upon that
part of the general population which cannot use or cannot
fully benefit from it must be known. In addition, the
DOC should consider that the Disabled have no smaller
degree of right to act as sources than the general popu-
lace. The question of enhancement of that right is, of
course, a proper matter for policy development.

Finally, in its role as advisor to other Federal de-
partments, the DOC should attain and maintain expertise
in areas relating to telecommunication SSDs for the popu-
lation at large. By extension, the DOC should be able to
advise other departments on SSD development for specific
populations. It's not inconceivable that as the increased
power of telecommunications to provide service to special-
ized populations and activities that advice on the pos-
sibility of development of specific-target-population of-
ferings may have to be given. This research, and the re-
port, is a step in the direction of building up a body of
knowledge in the areas of communication needs and activi-
ties of a specific population in preparation for policy
advisement.

We see the DOC as playing these roles and have some

specific recommendations concerning the extension of DOC's activities to embrace this particular specific population.

4.2.1 Information Source and Broker

DOC can act as a source of information to other Federal departments and provincial agencies through publicity of potential new SSDs that might benefit the Disabled. We see this as a natural function growing from the Information Services Branch. While not feasible at present, a computer-based "New Developments" service to other agencies can be envisaged to augment the more formal channel of In Search (En Quete). Possibly an occasional newsletter of a technical nature, concentrating on just-over-the-horizon technology as well as new SSDs, might be circulated among Federal and provincial agencies charged with health, welfare, recreation, social services and the like.

In addition, the DOC could sponsor technology updates for therapists, organization leaders, scholars and the Disabled themselves through seminars in order to disseminate information to individuals who might not normally be aware of such technical advances.

To create a "community" of individuals with shared interests, we propose that the DOC sponsor and fund a small conference to bring together individuals and organizations

who are concerned with the Disabled and with communication.
These might include the following:

- Therapists: physiotherapists and social workers

- Services: information, transportation, education

- Scholars: rehabilitation, communication, technology

- Manufacturers: telecommunication equipment, rehabili-
    tation aids, vocational and training devices

- Government agencies: Federal, provincial, municipal

- Disability agencies: social, political, charitable

The conference will serve two purposes. First, since
experiences among these individuals of communication plus
disability are diverse, a series of comments and discus-
sions will create a shared body of experience, fact, and
opinion, thus strengthening the concepts in the area.
Second, as an animation device, the conference will bring
together individuals with needs and those with skills and
resources. It will unite problems and potential solutions.
It will uncover potential problems.

Working from and extending beyond this report, the con-
ference will create new concepts beyond our limited view as
well as provide more concrete focus for our ideas and hy-
potheses. In particular, we expect that thinking of com-
munication as an aspect of the lives of the disabled will
give birth to new ways of thinking about disability and new,

more valuable, criteria with which to evaluate new SSDs
intended for this and related specific populations. We
expect, in other words, to create a discipline by bring-
ing together concepts which up until now have been di-
verse, diffuse, and scattered among individuals not in
contact with one another.

4.2.2 Advisor and Animator

Because individuals in the DOC possess expertise in
telecommunication, it is valuable for other departments
in the Federal government to have access to it. In par-
ticular, those agencies charged with functions relating
to the Disabled should have access to DOC's expertise.
Beyond this, DOC expertise is of interest to organizations
which might attempt to utilize new SSDs to benefit the Dis-
abled. We see several advisory functions that the DOC might
perform.

First, DOC can and should establish a permanent link
to the National Health and Welfare to have a mutual ex-
change of information and talent concerning SSDs that might
affect specific populations in areas that H&W might have
responsibility or interest--in particular rehabilitation
and information dissemination. This can easily be accom-
plished by temporarily placing an employee of H&W at the
Social Policy Planning Branch of the DOC in order to learn
the relevant communication terminology and technical data.

The advantages of this scheme are manifold. DOC will acquire expertise in accommodating specific populations-- not merely with the Disabled--and H&W will have an ear to the telecommunication future. Since it is H&W, rather than DOC, which has more primary responsibility vis-a-vis the Disabled, it makes better sense for DOC to channel information and advise through H&W than the other direction.

This individual, which I'll term the H&W Liason, can take on responsibilities for the Department which DOC would not normally be expected to have. For instance, he (or she) can advise provincial agencies, technologists, and entrepreneurs of both the technical and medical/social impact of SSDs for the Disabled. He can advise the Disabled themselves on technical advances they should be taking advantage of and arrange interviews with appropriate personnel in either department. An example is recent need for development of the "Visual Ear" which required coordination of DOC, a private R&D agency, an organization for the Disabled and interested other parties. Such ad hoc liasons are often effective (as in this case), but more well-defined guidelines for such coordination are probably needed. The H&W liason could act as a focus for all such coordination.

4.2.3 Policy Maker

Finally, DOC has a mandate to create policy for com-
munication technology usage. Inherent in the creation of
policy is the determination of criteria, and it is here
that DOC must pay special attention to the problems of
special populations, such as the Disabled. It is pos-
sible that some policies might discourage use of new SSDs
by the Disabled where, with some more pertinent criteria
operating, small changes in policy would foster usage.

Measurement of conformance to criteria requires data.
We propose that DOC commission and fund research to con-
tinue the work performed on a small scale in 1976. This
research will consist of a statistically valid sample
survey based upon the 1976 questionnaire/interview. Ques-
tions asked will concentrate upon skills, needs, and the
relationship between these and usage levels and situations.
We are particularly interested in these hypotheses:

1. That the electronic mass media are seen as
   general information sources, but not as ways
   to obtain information about disabilities;

2. That social isolation is unrelated to disability
   per se (except in extreme cases involving bed-rid-
   den individuals) but depends upon self-perception,
   education level, and the reaction of close friends

and relatives;

3. That the Disabled <u>relative to socio-economic situation</u> possess the same aspirations, although not necessarily to the same degree, as other individuals in society and therefore require the same access to new SSDs as others to meet these goals;

4. That in addition to <u>new</u> SSDs, there are <u>existing</u> SSDs which the Disabled are not using to fullest benefit and that through proper training of these individuals (therapists, for instance, could be the trainers), many benefits would arise that are now just out of their grasp;

5. That the electronic mass media are not direct isolating forces in the lives of the Disabled but rather fill time which is made available because of lack of vocational opportunity, transport, access and interpersonal support of a psychological nature;

6. That the Disabled are not aware of the activities of agencies ostensibly working for their benefit and that this lack of awareness is due both to lack of publicity by the agencies and lack of resources to attempt access on the part of the Disabled;

7. That there is a well-developed personal concept of an information service to disabled individuals which could be manifested in telecommunication SSDs.

This research will also provide some data concerning the relative frequencies of certain communication-function disabilities prevalent in the general populace segment labeled "Disabled." Based on these figures and taking into account the skills and expectations of the individuals concerned -- as well as measures of social utility and disutility of certain SSDs with regard to social isolation and freedom of choice among alternatives -- the DOC may then develop sets of criteria for evaluation of new SSDs for the Disabled to be included in policy statements.

In addition, the DOC should commence looking at the concept of specialized information services to be disseminated by telecommunication. The first group to profit from a point-to-point information delivery service would be those who cannot easily or comfortably leave their dwellings. There are numerous information services for the disabled operating in Canada, mostly by telephone. In Ottawa the service is underutilized and potentially duplicates similar community information services. The DOC, as a centre of communication activity, should examine the question of the priority of specialized information services in order to develop guidelines for "space" on future SSDs for such services (for instance, the availability of channels on cable tv systems through converters for such services as captioning, information retrieval, and interactive

up-stream services). Whereas economy might limit the general availability of such services, the possibility of using existing equipment, perhaps through subsidy, for a small, specialized target population might make such experiments attractive and deserving of priority in planning.

4.2.4 Summary

We have proposed activities in three areas: information exchange, advisement, and policy. Our particular recommendations are given below schematically in review:

4.2.4.1 Newsletter of new SSDs for the Disabled;

4.2.4.2 Technology updates

4.2.4.3 Communications and Disability conference

4.2.4.4 H&W Liason

4.2.4.5 Sample Survey

4.2.4.6 Information Service Policy project

It is likely that the H&W Liason person could take responsibility for several areas, such as 4.2.4.1, 4.2.4.2 and 4.2.4.6 and work with St. Paul University in conjunction with the conference (4.2.4.3). These activities form the administrative counterpart of the research ongoing at St. Paul University and the two sets of efforts involved will form the basis of a new "community" of enquiry and action.

FOOTNOTES

1. Owing to a significant percentage of DK/NA responses, these cumulative percentages are based upon the number of responses actually given.

2. The cumulation is done from the greater category (10 hrs. and more) down to the smallest one (Up to 3 hrs.) in the reverse order from the other cumulative column. Thus in the rightmost column, 56% of our respondants used the mass media for at least 6 hrs. daily, while 54% utilized them for at most 7 hrs. daily.

3. The RtR sample utilized the mass media at a rate of about 6 hrs. daily (TV = 3 hrs., radio = 1.8 hrs., newspaper = 1.2 hrs.) assuming independent usage. Probably the total is nearer 5 hrs. On the other hand, our sample has a median of about 7 hours.

5. COMMUNICATIONS, ATTITUDES, AND PHYSICAL DISABILITY

5.1 Introduction

Throughout recorded history people have been intrigued with the idea that physique is a meaningful indicator of personality. It is not hard to find examples from everyday life where physical cues form the basis of our judgements about inner qualities such as intelligence, honesty, kindness, motivation or even political leanings. Obvious examples of such external cues are hairstyle, clothing, body gestures, facial features, skin colour. A missing leg, a spastic gait or a wheelchair are also external signs which can elicit powerful associations in the observer giving him the impression that he knows quite a lot about the person observed.

In certain cases, the practice of using outward appearance as indicators of inner realities seems justified, having been confirmed by past experience and even supported by scientific research. Psychiatry, for example, has shown

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an intimate connection between emotional states, even un-
conscious ones, and physical conditions of the body such
as in hysterical paralysis. Further, there are instances
where physical signs, such as the features of mongolism,
are correlated with deficits of mental functioning. Thus
it is not surprising that people leap quite effortlessly
from perceiving physical abnormality to making judgements
about abnormality of personality, intelligence or even
honesty.

In the case of physical disability, however, such
leaps of judgement are often unwarranted. There may indeed
be a lawful connection between physical disability and per-
sonality but the connection is anything but straightforward.
Wright (1960) points out that the major findings of research
into the relation between disability and personality are
negative findings; that is, there is no scientific support
for a direct cause and effect link between having a dis-
ability and other factors such as intelligence, optimism,
kindness, motivation, adjustment, etc.. The same point
is driven home by Miller (1958) who found that among a
group of children with emotional disturbances, those with
cerebral palsy were indistinguishable from the other chil-
dren if only test data were made available with no identifying

data as to physical handicap. These tests included intelligence and personality factors.

Not surprisingly our exploratory study showed that although there may be a connection between physical disability and communication patterns, it is not a simple one. The results of our interviews (see Chapter 4) underscore the need for a more sophisticated model of communication and its relation to disability -- what is the web of underlying factors that lead to a particular set of communication needs? Knowing a person is in a wheelchair does not predict how many hours of television he watches or why he watches three hours less than his able-bodied neighbour. We need to understand how being in a wheelchair interacts with other factors of daily life such as level of education, family situation, age, etc., in order to generate a particular pattern of communication needs.

In addition to social and economic variables, another less-tangible but important factor concerns our attitudes and beliefs about disability and how these can be shaped by communication. The importance of attitudes was revealed by the disabled themselves during our interviews. For these people, communication was not just how many telephones they owned but had to do with people relating

to people. Communications for them had to do with feelings
of joy, frustration, shame and attitudes such as acceptance
and understanding. Communications also meant how the media
portrayed disability and the effects of these portrayals on
attitudes. Further, it was seen that negative or unrealistic
attitudes toward disability, engendered by communications,
could be more damaging than the actual physical limitations
of the disability itself in such practical areas as finding
housing, getting jobs, education, rehabilitation.

In light of the importance placed on these somewhat
intangible, difficult-to-measure connections among disability,
communications and attitudes, we felt we should devote at
least one chapter to discussing the issues they raised and
their implications for communications planning. The dis-
cussion is structured around the following questions:

1. How does physical disability behave as a symbolic
   code? From where does it derive its power as a
   "stigma" -- a sign meant to warn the observer
   about unseen but negative aspects of the bearer?

2. How might our implicit beliefs, both positive
   and negative, about the nature of disability,
   influence planning decisions concerning communi-
   cations hardware and content?

3. Given an understanding of the dynamics of stigma-
   tization, what communications strategies could
   be mounted in order to remove the stigma? What
   kinds of knowledge should flow through what
   kinds of channels in order to "contain" its neg-
   ative effects?

Our discussion of these questions will be based on
past research dealing with the psychological aspects of
disability as well as on our own interview results.

5.1.1 The Sources of our Attitudes Toward Physical Disability

What are the roots of our attitudes towards persons
with a physical disability? Are our beliefs and fears
about the nature of disability and its effects based on
accurate information or convenient myths? This section ex-
amines some of the most commonly held beliefs and fears
concerning physical disability and traces their origins
within three contexts: (1) the behaviour of animals toward
atypical members of the species; (2) the treatment of the
disabled within primitive societies and (3) the perception
of atypical physique as both a sign of past sins as well as
a cause for evil behaviour. Finally, we discuss the role
which communication may play in filling the knowledge gap
about disability.

5.1.2 Are Negative Attitudes Toward Physical Disability Instinctual?

Is there an innate antipathy toward persons with unusual physical features? Because the "innateness" hypothesis is often advanced to explain some of our more negative attitudes and prejudices toward anomolous physique, it is important to examine this claim. Has nature really endowed all animals with innate mechanisms for detecting and eliminating deviance for the survival of the species?

That so-called lower animals automatically persecute the physically deviate of their species is a claim which has not been substantiated by scientific research. On the contrary, one finds a wide range of responses to physical deviation in the animal world. Maisel (1953) cites some examples:

- Goldfish with amputated fins live "happily" amongst their fellows.

- Sharks will converge on a wounded shark and eat it.

- Some ants will kill their old and enfeebled. Higher ant forms do not.

- Termites eat their injured but notably where there is a shortage of nitrogenous food.

- An albino penguin was observed to be loved by his family but received with hostility by strangers.

- Among fish, unusual colouring is of no importance.

- Baboons are ruthless toward their physical inferiors.

- The wolf does not attack or avoid physically atypical wolves.

What should be noted here, in addition to the wide variety of reaction to disability that one finds in the animal kingdom, is the fact that people choose to ignore those cases which do not support already existing attitudes about how one should react to physical atypicality.

Consider, for example, the common folklore that hens will peck to death another bird who has a raw wound showing. This fact has been picked up and stored within cultural knowledge because it fits in with the preconceived idea that physical difference and injury are naturally dangerous to the health and welfare of the species. However, the fact that hens do not react this way to other kinds of irregularities is hardly ever mentioned. A hen that is paralyzed, for example, will maintain her position in the pecking order. Other examples could be cited from animal behaviour to show that the so-called "law of the deep" does not hold universally for animals, never mind humans.

5.1.3 How Do "Primitive" Societies Deal With Physical Anomaly?

Another common belief is that so-called primitive
societies, who are closer to the natural order of the uni-
verse, deal harshly with physical disability for the good
of the tribe. Again, Maisel cites examples which point
out the diversity, not the universality, of the treatment
of the disabled by primitive peoples. Here are a few ex-
amples:

- In the Azandi tribe, infantacide is not practiced.
  Abnormal children are never killed, nor do they
  lack the love of their parents.

- Among the Sironio Indians, sickness not infre-
  quently leads to abandonnement and death.

- Among the Masai, misshapen and especially weakly
  children, are killed immediately after birth.

- Among the Creek Indians, where old age is revered
  to excess, the aged and the infirm were killed
  only out of humanitarian reasons, such as when
  they might fall into enemy hands.

- Among the Wogeo, a New Guinea tribe, children
  with obvious deformities are buried alive at
  birth, but children crippled later in life are
  looked after with loving care.

Although the variety of response to physical atypi-
cality is very great across primitive cultures, certain
common patterns do emerge. All societies distinguish be-
tween the helpless or weakened states caused by old age
versus the same conditions caused by other factors such as
birth defects or accidents. (Simons, 1952). All societies
place aesthetic and social value on having a "whole" body
although definitions of what can be considered beautiful
vary greatly. One need only cite the artificially pro-
truding lips of the Ubangi or the dueling scars of Prussian
soldiers to see across cultural differences in attitudes
toward physical beauty. There do not seem to be, however,
cultures where the absence of body parts are valued as a
sign of beauty.

In summary, there are no hard and fast conclusions
about the treatment of the disabled by different cultures.
At least there is a need for more research in order to un-
cover underlying processes which could account for common
attitudes, across cultures, toward atypical physique.

5.1.4 A Twisted Body, A Twisted Mind?

The Old Testament strictly commands that "the blind
and the lame shall not come into the house". There is little
doubt that for many, even in today's secular society, phy-
sical disability is associated with punishment for past

sins. Hentig (1948) says that the most societies have had the idea that physical defect may be the punishment for acts committed even by one's ancestors.

Moreover, disability is not only often regarded as punishment for past sins but may also be considered as the source for future evil. This is captured in such dicta as, "A twisted mind in a twisted body".

Patients with facial disfigurements often express fear of being judged negatively in terms of character because of their facial deformities. (Macgregor, et al, 1953). A patient with a severe facial disfigurement resulting from war injuries gives the following account:

> "When I parked my car in front of a jewelry store, two cops came up and asked me for my identification card. They thought I was a gangster".

The mass media must assume some responsibility for sustaining the belief that outward appearance is a good indicator of character. One need only look at Saturday morning cartoon shows, comic books or films for confirming evidence of the use of stereotypes in terms of physical anomaly. It is usually a snap to pick out the heroes from the villians on the basis of looks alone. (See a recent study by Gerbner, et al on the use of ethnic stereotypes in the media).

How does it happen that physical anomaly is so
easily accepted as a sign for character anomaly? Wright
(1960) suggests that to some extent our attitudes toward
disability are shaped by basic processes of perception and
cognition, especially the way in which the mind seeks to
impose a causal order on events and to endow these events
with value.

This is easier to understand within the general
context of attitudes toward health. How are our attitudes
toward health shaped? Health as an objective state of
physical being is neutral, but in a social environment it
is positively value-laden. This is reflected in advertise-
ments for toothpaste, deodorant, mouthwash, etc., which
stress that health is the royal road to success in love
and in life.

Thus not only does health become a highly valued
goal in itself, but the very conditions which make it
possible, i.e. its causes, become highly valued and endowed
with moral qualities. Brushing one's teeth, getting a good
night's rest, taking a bath,are all activities invested
with moral value. "Cleanliness is next to godliness". If
this sequence of events is true, that is that virtue leads
to good health, then, one could reason, the reverse sequence
must also hold true. Illness and disability are disagreeable

states, negative effects whose causes must also be negative
or immoral. Furthermore, illness is the price one pays
for breaking moral rules -- catching a cold by not wearing
one's hat, tooth decay from eating too much candy. Thus
it is quite natural for children and adults to learn that
evil acts are punished by loss of health (state of grace)
whose results are pain, illness and suffering.

Once the causal link is made between evil acts and
suffering, the conditions exist for the reverse mental opera-
tion. Upon seeing signs of disability or suffering, one
searches for its evil causes. Seeing disability as the
result of wrongdoing, means also that someone has to be
blamed as its originator. This is brought out in a study
of the attitudes of parents of blind children (Sommers, 1944),
two samples of which are the following:

- Blindness as a symbol of punishment: "What have
  we done that God should wish this on us"?
- Fear of being suspected of having a social disease:
  "I am sure the neighbours say this about me be-
  cause they have mentioned it in reference to other
  handicapped children in the vicinity".

One should not overgeneralize the case, however.
Sometimes suffering and disability are associated with
positive human values such as gaining deeper insight into

human nature, seeing truth and meaning in life beyond the
material and the physical, acts of courage in the face of
severe difficulties, etc.. The portrayal of disability in
the arts such as The Hunchback of Notre Dame, The Phantom
of the Opera or even Frankenstein testifies to the com-
plex set of associations of good and evil elicited by dis-
ability as a sign system.

5.1.5 Fear of the Different and the Strange

Does having a disability set up a natural barrier
between the disabled and the able-bodied? There is some
evidence that people exhibit spontaneous fears toward the
different and the strange. Schilder (1935) for example,
says that perception of atypical physique may bring about
physiological discomfort because it does not fit with a
well-ordered "body image". (We will discuss this notion
in more detail in section 5.2.2). The explanation given
is that people have an internalised model or "ideal" of
what the normal body should be like and therefore have a
good idea of how their own bodies conform to this ideal.
The appearance therefore of a person with a missing part
or deformity touches off a type of mismatch signal in terms
of the body image which causes psychological anxiety to
the extent that the perceiver identifies with the perceived.

Hebb (1946) has suggested that fear of the different
and the strange may be bound up with the neurophysiological
bases of perception and thought. His theory is drawn from
observations of humans and chimpanzees who show spontaneous
fear of mutilated or unresponding (dead) bodies. Hebb
argues that the "fear occurs when an object is seen which
is like familiar objects in enough respects to arouse
habitual processes of perception, but in other respects
arouses incompatible processes". (p. 268).

What is critical to note is that it is not the
physical difference alone which is fear-producing but the
interpretation assigned to the feelings of strangeness en-
gendered by the difference.

5.1.6 Conclusion

In concluding this section on the roots of dis-
ability as a sign system, we would like to suggest two
areas where communications planning could play a useful
role.

5.1.6.1 Knowledge About the Causes of Disability

We have seen that people seek to make sense out
of the course of events. And when actual knowledge is
lacking about how two events are related, people must depend
on prior knowledge to interprete their meaning. Thus it is

not surprising that lacking knowledge, people may categorize
physical disability as both a symbol of punishment for past
transgressions and as a sign stigmatising the bearer as a
source of future evil. (See Goffman(1963) for discussion of
the nature of stigma).

Clearly communications can play an important role .
in filling the knowledge gap in terms of disability: doc-
umentary films, television programs, books, newspaper
articles, ads which highlight not so much the superfeats
of the rare disabled who is a one-legged ski champion, but
rather disemmenate a view of disability as a physical
fact which is natural and does not imply evil and retri-
bution for past sins.   we will have more to say about
this in Section 5.3.

5.1.6.2 Integration and the Importance of Face/Face Contact

One way of educating the general public, including
the handicapped themselves, about the nature of disability,
is through the media as suggested above. Another way is
to encourage the creation of healthy communication on an
interpersonal basis. This implies that where it is possible,

disabled children should be integrated into the normal
school system rather than placed in special segregated
schools. This would encourage learning about the nature
of disability at an early age in familiar settings and
could help contain the spread of stigma from physical
anomoly to negative judgements about intelligence, char-
acter. To quote from Wright:

> "All one knows about a person with a disability
> is that: he has the disability. Until one knows
> more about him, one can hardly say more. Once
> spread has been held in check, physical dissimil-
> arity has become a relatively minor feature
> among the welter of other characteristics that
> unite people. In short, rather than as a dis-
> abled person, he can be perceived as a person
> with a disability... After all, the person with
> a disability is first of all a person, and as
> such already bears essential samenesses with the
> person observing or interacting with him. This
> point is one of the crucial elements of what is
> referred to as the "brotherhood of man". (p. 265)

5.2 Disability and the Dynamics of Stigmatization

It is a fact that a physical disability can limit
the range of a person's activities. A blind person may be
restricted in his enjoyment of the movies. A paraplegic
may not be able to go ice-skating. These are objective
physical constraints. But the limitations imposed by
one's mental evaluation of disability may be far more
serious than the physical or sensory impairments themselves.

In other words, a physical disability can have properties of a "stigma"[1] -- it can behave as a sign which warns the perceiver (including the disabled person himself) of negative qualities of the bearer. Such negative aspects may spread to all phases of person's life influencing his feelings about himself, his worth as a human being and his communication with others.

This first part of this section will consider this process of stigmatization and its effects on values and attitudes. The second part is concerned with changing negative values through proper management of information about disability, i.e., removing the stigma from differencing through dissemination of knowledge.

5.2.1 Are the Disabled a Minority Group?

It has been suggested that in many respects the disabled are in the same position as an underprivileged minority group (Barker, 1948). In light of the increasing awareness and sophistication on the part of ethnic minorities of the power of the media bringing about changes of attitude and public policy, it is important to examine the adequacy of this analogy.

Clearly there is a pattern of discrimination against the disabled in such areas as housing, employment, trans-

port, recreation, social relations. One study from the
area of social relations (Rusk and Taylor, 1946) found
that of 50 college students, 65% said they would not marry
someone with an amputated leg; 85% said they would not marry
and 72% said they would not date a deaf person. This type
of ostracism is familiar to ethnic minorities.

Another similarity between minority grop status
and disability is that the majority feel threatened by the
upward mobility of the minority group member; that is, it
threatens his own status as a superior being. This is nicely
captured in an anecdote by Chevigny (1946) who, recently
blinded, was told by a friend, "You're a blind man now, you'll
be expected to act like one." The friend was convinced that
Chevigny would upset the social order of things if he refused
to act the role of the blind man.

As often happens with members of discriminated-against
minorities, a person with a disability may find himself in
situations with overlapping goals. Bateson (1972) has called
these schizophrenic situations the "double-bind." On the
one hand, a person with a stigma and often those surrounding
him insist that he be treated "just like everyone else." This
creates a pressure for pretense at "normal" behavior patterns

although constant and often failed attempts at concealment
are a guaranteed reminder of one's stigma. This conflict
between "normal" and "disabled" roles may lead to a type
of split personality as evidenced by the blind person who
finds it necessary to walk slowly and cautiously when
climbing stairs while at the same time he may wish to hide
his impairment in order to be one of the crowd.

As with members of minority groups, a person with
a disability may be subject to group stereotypes. To the
extent that the stereotype of someone with a disability
is that of a constantly suffering, tragic figure whose life
and personality must be disturbed, all his actions will
be interpreted to fit this framework. Wright notes some
common negative misinterpretations:

> A person with a disability is often considered to
> be compensating when he is merely interested; he
> is assumed to be feeling inferior when he may
> merely be holding back because of realistic inter-
> pretation of his limitations; he is regarded
> as being suspicious when he may merely be wondering
> -- all because he is seen as part of a larger group
> with certain presumed personality characteristics.

While there are similarities in the dynamics of
stigmatization between persons with a disability and members
of minorities, there are also important differences. The
most important, perhaps, is that physical disability, while
setting one apart from the majority, does not provide an

alternative positive group membership.[2] Physical deviation
is not a sign which is usually transmitted from father to
son as are other minority group traits and values. Usually
a person with a disability is the only one of his family
so affected and thus may lack the automatic identification
and support of other members of the group.

As we point out in our recommendations, one of the
most difficult problems to overcome, and one in which
communications can play a crucial role, is in the creating
of useful information links among the disabled. Creating
a sense of community amongst the disabled, however, can
have the effects of a double-edged sword. Because dis-
ability may already be negatively loaded in value, there is
often great resistance to organization. Identity with other
disabled may be feared as a kind of auto-stigmatization
whose results are opposite to goal of "passing" -- being
like everybody else.

5.2.2 The Tyranny of Normal Standards

We now come to the major and probably the most com-
plex factor in the dynamics of stigmatization. This is the
problem of what could be called "the idolizing of normal
standards". Because the idolizing of normal standards

is such a pervasive aspect of living, it almost passes
unnoticed and unanalyzed. Yet such internalized, invisible
norms form the context not only for the goals, expectations
and feelings of the disabled and society in general, but affect
also the way in which organizations and individuals, such
as the funders of the present study, formulate policy and
programs which can influence their lives.

By idolizing normal standards we mean that certain
values are placed on behaviour patterns which are considered
as the "ideal" or proper way of behaving. Such ideals pervade a
person's self-concept and influence his interactions
with others.

As a model of behaviour, the notion of "normal per-
formance" can have both positive and negative effects on
someone with a disability. Let's consider some negative
effects first. If a person with a disability clings to
the standards of the majority, even in matters of such
basics as walking, talking and eating, then he may become
ensnared into repeated failures if normal performance is
unattainable. Moreover, performance that shows genuine
progress in a particular skill may elicit only derision
and disappointment if it still does not meet with the ideal
way of performing. Hence, even if a person with a disability

should match or even surpass the standards of normal per-
formance, this does not guarantee healthy adjustment. As
long as he views his disability as a stigma, he can only
think of himself as an imperfect imitation of the normal
ideal of the nondisabled person.

In terms of the perception of behaviour, idolizing
the standard would prevent someone from seeing beauty and
courage in the labouring movements of a polio victim
straining to master walking, or viewing the hook prosthesis
of an amputee as "working hands" rather than as "claws".
(Wright, p. 25).

This can be seen in the case of Raymond Goldman,
a polio victim at the age of 4, who, against all odds,
laboriously taught himself to walk by the time he was
seventeen. Despite his tremendous accomplishment, his
feeling of achievement could quickly turn to dismay in
situations where normal standards remained predominant.

> At the beach he swam early in the morning to avoid
> people who would see his legs. 'The very sight of
> my own uncovered legs stabbed me to the heart'
> (p. 86). In the afternoons he sat on the beach,
> in trousers and shoes. 'I even made friends with
> a group of fellows and girls of my own age who
> came down every afternoon, my self-consciousness
> subsiding as I got to know them better; subsiding
> that is, to a certain point beyond which it could
> not go. When the girls were present I didn't walk'.
> (p. 89, italics added). What had been true accom-
> plishment in terms of progress was now seen as de-
> feat and failure because in this situation the
> normal standards of walking were glorified into
> how one should walk. (Wright, p. 26).

Further, idolizing normal standards not only en-
courages feelings of inferiority but also guilt. We men-
tioned in section 5.1.3 the mental operation in which the
cause of disability is associated with evil. Since emulating
normal performance can heighten the severity or a disability
by emphasizing a person's shortcomings, the feelings of
guilt attached to the disability can also worsen.

One of the major challenges in rehabilitation is
the exorcising of the tendency to impute moral qualities
to normal standards. Raymond Goldman tells of his feelings
of shame and guilt at being below standard as if he had
broken some basic moral code:

> "It is hard to believe that I am describing the
> emotions of a youth who is guiltless of crime
> against society. His frantic fear of human eyes
> could not be more terrible if he had robbed a bank,
> committed murder, or escaped from a penitentiary.
> He is lame, that is all; and his soul is fevered
> with a burning shame". (Wright, 1960, pg. 27)

We have exaggerated the negative aspects of
idolizing normal performance in order to alert communi-
cations planners to its seductiveness as a policy objective.
Because we have all been conditioned to glorify standards
of beauty and physical strength, it is all too easy, when
considering how communications might help the disabled, to
search for ways in which new communications devices could
make the disabled "like everyone else".

Surely, a device which has been proven to help the blind to see or the deaf to hear, and is economically viable, should be publicized and utilized. Similarly, it is important to find ways to give the disabled access to media and to information which equal the opportunities of their able-bodied neighbour. These objectives are beyond dispute.

The dangers, however, for communications policy, are as follows. In terms of the technology itself, financing research on futuristic communications devices to help the disabled may, under certain circumstances, be justified. Too often, however, the underlying assumption of these projects is to use technology to replace or substitute for a missing organ or damaged sensory or motor function in a way that permits the disabled person to behave just like normal people. The problem here is that, realistically, technical breakthroughs which can restore "normal" vision to the blind or "perfect" hearing to the deaf are just not honest claims for the near or foreseeable future.

Furthermore, exaggerated newspaper accounts of breakthroughs such as highly-touted computer-aided sensing devices for restoring vision to the blind or magic typewriters for helping the cerebral palsied communicate may

only serve to raise false hopes. False expectations for technological cures can also hinder the realistic appraisal of one's disability and thus therefore slow down the search for alternative methods of walking, communicating, eating, which, while not matching the standards of normal performance, can be quite effective.

Myerson, working in the area of educational planning for the deaf, gives a discussion of the dangers of emulating the normal performance worth quoting verbatim:

> Everyone will agree that speech and lip-reading are useful tools for the deaf child. In their finest development they enlarge the life space of the child tremendously, permit increasingly finer differentiations or growth, and reduce the communications barriers between the child, his family, and the world. For reasons that are presently unknown, however, not every deaf child learns to speak and lip-read. For reasons we can only conjecture, many who do learn, after 12 to 15 years of continuous drill, later do not use their hard-won skills. Perhaps they discover the deceit of the implicit promises held out to them that "if only you learn these skills and behave like other people, society will accept you". Perhaps many discover that their speech and lip-reading are good only in a limited circle of family and friends. Outside of it they may experience great difficulty in understanding or being understood. They may discover that others are amused or annoyed at their voices.
>
> Is a child necessarily a less valuable child if he uses other modalities and communicates by finger-spelling or pad and pencil? Is nothing else so important as speech and lip-reading? It

is true that in some schools there is a tendency
to establish a status hierarchy of "good" oral
pupils and "poorer" manual pupils, but there is no
psychological justification for this. Perhaps
parents should evaluate a school by determining
whether its students have anything worthwhile to
communicate beyond being able to say "a top, a ball,
a fish". Perhaps they should ask if the children
have learned to solve problems by themselves,
whether they have learned to take turns and respect
the rights of others, and whether they have "good"
adult power figures with whom they can easily
identify (Meyerson, 1955a:163-164).

In sum, we have tried to issue an important, if
somewhat abstract, warning, that the usefulness of a
communications device is not uniquely determined on how
closely it moves the disabled person along some imaginary
scale of "normalcy". Rather, we have suggested that each
individual with a disability has a range of potential com-
petence in communication skills which needs to be uncovered
and analyzed. The decision about whether or not to utilize
a particular communications hardware should be made in the
context of the individual's potential growth in a skill --
not compared with how closely it brings him toward the goal
of "behaving like everybody else".

Just as the myth of standard performance can dominate
research and applications of hardware, so idolizing normal
or even superior performance can dominate the portrayal
of the handicapped in the mass media. One often finds the
that the portrayal of the disabled in the media is that of

a "super-handicap" who, despite a terrible affliction, has managed to overcome great odds in order to be <u>just like a normal person</u>. Individuals who have become outstanding sports figures despite missing limbs are often held as symbols for other disabled as well as to the general public.

A recent made-for-television film showed a paraplegic veteran's attempt to travel from San Francisco to Los Angeles in his wheel chair. This was obviously a well-meaning attempt at inspiration, but consider how it could backfire. Was it really necessary to focus on such a spectacular stunt to portray the courage of some disabled people? The film could have had two negative effects. First it could have engendered false expectations on the part of the general public as to what people in wheel chairs should be capable of doing. Second, how many people actually confined to wheel chairs may have felt discouraged and depressed after comparing their own meager accomplishments with the spectacular achievement showed on film?

Surely another kind of film treatment of disability could be useful -- one which emphasizes in a realistic way, the competences and the physical limitations of a person with a disability. One could imagine, for example, a character who has a disability being part of a weekly series

or even a soap opera. If done accurately, such a treatment could serve two purposes. First, it could give the general public an opportunity to see how someone with a disability does manage. Second, it could show that having a disability is not necessarily the predominating, defining characteristic of a human being. One would hypothese that the disability aspect of such a character could fade into the background as people become aware of other aspects of the character; his sense of humour, his kindness; or even his sense of evil.

We have stressed how idolizing normal performance can influence communications policy both in terms of hardware as well as in terms of communications content. In the next section we will develop in more detail some ideas concerning what we consider to be a major challenge to future research on communication and disability -- that is, the changing of perceptions and values in the understanding and acceptance of disability. Before turning to this question, however, we should balance the scale somewhat on the issue of normal standards by mentioning some of their potential benefits.

5.2.3 Positive Effects of Emulating Normal Standards

Although one should be aware of the tyranny of normal standards, striving toward normal performance may,

at times, have positive effects. First, it may force the person into undertaking activities that he might have thought were not within his capacities. In so doing, he may discover that indeed he can accomplish certain tasks formerly believed to be unreachable or he may discover alternative ways of performing them. Second, clinging to normal ideals may be an unavoidable part of the rehabilitation process. One might have to try to act like everyone else before one can discover the value in being oneself. Finally, adhering to certain standards may be useful when they can be met without trauma and when a natural way of performing a skill is counter to socially approved methods. An example would be the social benefit of teaching table manners to the blind child -- although putting his nose to the food would be more natural in finding out what is on his plate.

5.3 Removing the Stigma from Difference: Communication Strategies

We have seen that physique is often regarded as a sign for a wide range of feelings and impressions about a person. In fact, we said that atypicality of physique may be interpreted as the key to a person's behaviour and

personality. Thus the effects of disability as a sign can
"spread" to all facets of a person's existence. It is even
possible that physical disability in one area may be per-
ceived as spreading to other physical capacities. This
is seen in the case of the mother of a deaf child who said
that she would rather have her child deaf than blind be-
cause "a blind child has blindness to face as well as
deafness". (Wright, 1960).

Clearly, a challenge to communications research would
be to develop strategies geared to "containing" the psycholo-
gical spread of disability. The goal would be, through
information management, to change the perception of physique
as the central, dominating factor in a person's life to a
view in which physique is regarded as but one among an
array of factors determining existence.

Based on a review of pertinant literature on value
changes in the acceptance of disability, mostly from Wright,
as well as research in mass media and attitude change, this
section will discuss briefly the type of value-shifts con-
cerning disability that an effective media strategy would
have to develop. These are: (1) enlarging the scope of
values while subordinating physique, (2) shifting from
comparative values to asset values and (3) focusing on the
coping aspects of disability versus the succumbing aspects.

5.3.1 Enlarging the Scope of Values

One way to bring about a shift in values concerning disability is to move physique into a subordinate position with respect to other values; that is encouraging the realization that disability is not the only thing that matters in existence. At times, this shift will only occur if the person's system of values is widened. In many cases, especially after the loss of a limb or capacity due to accident, this shift may be a natural result of mastering the daily tasks of living such as learning to sit up, or brush one's teeth.

More often, however, widening the scope of values in a significant way may demand planned efforts in terms of education or vocational training where the emphasis is on accomplishing or learning does not depend solely on having a perfect body. Thus, through finding the satisfactions of work, be it creative or functional, changes can occur in one's value system subordinating physique to a secondary role. Communication, in a broad sense, can play a role here to the extent that more efficient access to information concerning the world of life and ideas can lead to expanded values. Wright states that the desired result of increased exposure to information and values result should be the following:

> The person with a disability must be encouraged
> to pinpoint the values now lost to him so that
> they become but dots in the large map of the
> world, in which vast areas remain relatively in-
> tact and accessible. He will then realize that
> he is not a disabled person but a person with a
> disability, that life has a multitude of meanings,
> opportunities and frustrations, only some of which
> are disability connected. (p. 128).

5.3.2 From Comparing to Appreciating

Closely related to the problem of idolizing normal standards (p.116), comparing vs. appreciating is the difference between judging something on its own merits or in terms of how well it compares to some standard. An example would be enjoying the musical performance of a group of amateur musicians for their good qualities as opposed to displeasure through constant comparison with professional musicians. Because the competitive nature of society where almost all phases of activity and rewards are subject to measurement and evaluation according to some standard, shifts along this dimension are extremely difficult. The prize is given to the student with the best grades, not to the one who works the hardest or makes the most progress.

Thus, any educational material be it documentary films or radio programs which is able to focus on physique in terms of its inherent or essential characteristics, can be of potential benefit psychologically.

Such aims are admittedly idealistic. But are they impossible? Surely human beings are not miserable because they cannot jump as far as kangaroos or run as fast as deer. Furthermore, parents can thrill at the first few wobbly steps of their 3-year-old child although his walking is surely inferior to an adult's. Bringing about such changing values is closely related to the problem of perceiving disability in terms of its coping versus its succumbing aspects. This will be taken up next.

5.3.3 Shifting the Focus From Succumbing to Coping

During our interviews with the disabled, we could not help but be struck by the following fact: two people interpret the meaning of their disability in vastly different ways. For one, the disability could mean tragedy and despair, while for the other, it signified solutions and adjustments. Such polar reactions to the same physical sign are not only true of the disabled themselves, but also those with whom they come in contact: family, friends, teachers, employers. We will call these two kinds of reactions, one focusing on the problems and difficulties, the other on the positive aspects, the "coping" versus the "succumbing" interpretations of disability (after Wright, 1960).

What leads one person to perceive physical disability in terms of coping while another sees only its succumbing or gloomy aspects? Identifying the conditions which give focus to these two different interpretations of disability may give us some important clues for the role of communications in the rehabilitation or adjustment process.

Let us consider first the reactions of the non-disabled. One reason why someone might perceive disability in terms of succumbing is simply because there is no need for him to focus on the coping aspects. This is typically the case with strangers outside the family or medical personnel who have no chance to see the daily struggle of someone with a handicap and who do not have a vested interest in his success.

Perceiving from this "outside" position would lead one to assume that a person with a disability is automatically excluded from certain kinds of skills, interests and activities. The outsider may, for example, be astonished to learn that a blind person enjoys going to the movies although he himself may like listening to the radio without the benefit of visual stimulation. Thus any information about the actual interests and skills of the handicapped, whether diseminated via newspaper, films or radio, or TV,

could be beneficial in moving someone from the vantage point of an "outsider" to one of "insider" who tends to perceive the coping aspects of disability.

A more serious situation is where there is actually a need on the part of outsider to perceive the succumbing aspects of disability. For example, someone who feels his own superior status as being closely linked to physique, will feel a need to focus on the negative aspects of disability. Such a person may even insist on pitying the person with a disability and even demand that the disabled person pity himself. This situation is more complex than the one discussed in the previous paragraph and consequently an effective media strategy would have to go beyond the mere presenting of accurate facts about the interests and skills of the disabled. The media challenge here may involve nothing less than a wholesale attack on the person's (and perhaps the society's) system of values concerning physique.

We have already discussed at some length one factor which would lead a disabled person to focus on the succumbing aspects of disability: i.e., the idolizing of normal performance. Another factor prevalent in situations of sudden disability due to disease or accident, is what has been

called the "requirement of mourning" (Wright, p. 72). Here the person, being in a comparative state of mind, tends to exaggerate the value of having a perfect physique and tends to see only the negative side of the disability. Shifting his perceptions from seeing the succumbing to the coping aspects usually occur here through the small efforts of daily living such as sitting up or learning to write again where the focus is only the problem-solving aspects of the activity. Clearly, any film or article which shows how others with similar handicaps cope with the everyday problems of living may help bring about these changes in perceptions.

In general, focusing on the difficulties of having a disability in terms of coping and of succumbing gives one a strong guide for evaluating media projects intended to develop a more favourable attitude toward disability both on the part of the public and in terms of the disabled themselves.

> "If the project portrays predominantly suffering or succumbing, and minimizes the coping possibilities, the dominant emotions it arouses will be devaluating pity and/or fear. Unfortunately there are many instances where the emphasis is on the wrecked lives of paraplegics, on the horror of cancer, on the devastating effects of blindness and so on. To be sure, many projects, primarily

designed for fund-raising, have been based on the
assumption that giving is most effectively stimu-
lated by pity. This assumption is in itself
questionable and should be subjected to experi-
mental test. In any case, because emphasis on the
catastrophic effects of disability ill prepares the
public for the eventuality of coping with disability
problems themselves or for satisfactory interpersonal
relations with others who have disabilities, such
propoganda is of questionable value". (Wright p. 67)

The media project whose goal is to change attitudes
towards physical disability faces a stiff challenge. Its
goals may be somewhat contradictory. On the one hand it
must arouse and maintain the receiver's interest in the
problem. This is often accomplished through focusing on the
more tragic, spectacular aspects of having a disability. On
the other hand, it should inform the viewer through accurate
information about the nature of the disability and how people
cope with it. Thus, the producer must try to keep himself
in check by treading a find line between propagandizing,
entertaining, and informing.

In this context, the documentary films of Quebec
cineast Michel Moreau deserve mention. He has recently
completed a series of films collectively entitled "Les
Exclus", which tries to sensitize and educate the public to
a range of social, emotional, physical and mental "disabili-
ties." These include mental retardation, cerebral palsy,
deafness, epilepsy and others. Several aspects of Moreau's

films are worth examining for they give us some insight into the variables one must consider if a media project is to have a significant impact in the area of disability.

First, each disability is carefully researched before scenarios are developed. Opinions and suggestions are solicited from experts as well as from the people having the disability in question. This process of critique and suggestion continues through the writing of the scenario to the final editing.

Second, his films are neither sugar-coated nor maudlin treatments of disability. Through extremely sensitive camera-work, Moreau is able to defuse our initial repulsions or prejudices to physical anomaly. His camera directs our eyes to the essential humanity, warmth, struggle -- even humour -- which physical disability shares with all human condition, thus helping remove the stigma from being different.

Third, Moreau does not hesitate to provide the viewer factual and even theoretical information about disability. This is done by integrating theory with scenes of concrete action. A good example comes from one of his early films, "La Lecon des Mongoliens." Part of the film presents a theory about how certain mental deficits of mongolism are the result of a lack of central coordination among sensory

systems of touch, vision, hearing, etc. The theoretical
part, while necessarily vulgarized for a general audience,
is treated effectively by showing a mechanical model whose
interlocking gears represent the various sensory-motor cir-
cuits of touch, vision, and hearing and how they function
together in various tasks. The explanation of this model
is interspersed with images of the differences between mon-
goloid and normal infants during feeding.

Finally, and perhaps most important, Moreau's films
are part of a total educational process which does not end
once the film is over. Where possible, Moreau or a member
of his team are present during the presentation of his film
to discuss its meaning with a particular audience. Such
discussions can revolve around the attitudes portrayed in
the film as well as its implications for political action.

5.4 Summary and Implications for Research

5.4.1 Shaping Attitudes

Communications policy concerning persons with a
physical disability should not be restricted to problems of
accessing information and using communications hardware.
Negative or unrealistic beliefs about disability, engendered
by interpersonal and mass communication, can be more damaging
than the actual physical limitations of a disability in such

practical matters as getting jobs, finding housing, rehabili-
tation and education. Further research is thus needed on
the role of the mass media and other forms of communication
in shaping attitudes and values concerning disability.

5.4.2 Media Projects

Some rough guidelines are mentioned for evaluating
media projects whose goals are to change attitudes about dis-
ability: de-emphasizing comparisons with ideal or normal per-
formance, subordinating physique through enlarging the scope
of values, focusing on the coping rather than the succumbing
aspects of having a disability.

5.4.3 Organization

The disabled to a certain extent face similar prob-
lems and prejudices to ethnic minorities. It does not fol-
low, however, that the disabled can adopt the same kinds of
tactics in the media for overcoming prejudice and obtaining
poolitical objectives. A main problem is resistance to or-
ganization into a cohesive group because of the fear of auto-
stigmatization -- the identification with the disabled as a
community is perceived as militating against the goal of be-
ing like everyone else.

5.4.4 Criteria for SSDs

Evaluating the potential utility of a new communication service, system or device should not be based on the assumption that there is one standard, correct way of speaking, seeing, hearing or writing. Rather, assessing the utility of an SSD should occur in the context of the individual's range of potential growth within a particular communication skill.

5.4.5 Technology Research

Premature publicizing through the media of so-called "breakthroughs" in communication technology claiming to restore lost eyesight or impaired hearing to normal conditions may actually hinder rehabilitation through raising of false hopes. Moreover, such claims may slow down useful research into alternative ways of accessing and generating information which, while not conforming to normal performance, can be equally as effective.

FOOTNOTES

1. "... the term 'stigma' was used by the Greeks to refer to bodily signs designed to expose something unusual or bad about the moral status of the signifier. The signs were cut or burnt into the body and advertised that the bearer was a slave, a criminal, or a traitor -- a blemished person, ritually polluted, to be avoided, especially in public places". (Goffman, E. Op. Cit. p. 1).

2. This discussion should be compared with that of pp. 77 ff. The media do have a role in identity formation which may be used to advantage.

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APPENDIX I

Survey Interview Codebook

General Notes:

    1. Percentages are rounded to whole numbers.
       Roundoff errors will introduce a high sum-
       mation (between 101% and 104%).

    2. Certain questions (6,10, 12, 13, 21, 22, 23,
       27, 32, 58, 60, 61, and 62) were of a mul-
       tiple answer quality. Consequently summa-
       tions are quite a lot over 100%.

    3. Footnotes are given on each page, indicated
       by the * column.

    4. Although in the interview the actual wording
       used in questions varied, there should have
       been little effect on the response.

    5. Not all respondants were asked all questions.
       This is explained in footnotes.

    6. Four items (63-66) are derived data from other
       questions.

Ques- tion	See Page *	Content	%
1	49	HOW MANY WORKING TELEVISION SETS DO YOU HAVE ACCESS TO?	

1- None 7
2- One 56
3- Two 33
4- More than Two 5
X- DK/NA —

| 2 | 51 | ARE YOU ON CABLE TV? | |

1- Yes 48
2- No 51
X- DK/NA 2

| 3 | 51 | IS YOUR TV EQUIPPED WITH REMOTE CONTROL? | |

1- Yes 10
2- No 85
X- DK/NA 6

| 4 | 51 | IS AT LEAST ONE OF YOUR TVS A COLOR ONE? | |

1- Yes 41
2- No 54
X- DK/NA 6

| 5 | 51 | ON AN AVERAGE WEEKDAY, HOW MUCH TIME DO
YOU SPEND WATCHING TV... | |

	Morning	Afternoon	Evening
1- Don't	83	62	8
2- L.t. $\frac{1}{2}$ hr.	5	2	12
3- $\frac{1}{2}$ to 1 hr.	2	15	14
4- 1 to 1$\frac{1}{2}$ hr.	3	7	4
5- 1$\frac{1}{2}$ to 2 hr.	3	7	12
6- 2 to 2$\frac{1}{2}$ hr.	1	1	11
7- 3 hr.	1	3	36

| 6 | v | WHERE IS (ARE) YOUR TV SET(S) LOCATED? | |

1- Bedroom 32
2- Kitchen 2
3- Living Room 35
4- Study, den, family room 4
5- In another's lodgings 3
6- Other 12
X- DK/NA/Weren't asked 20

Ques-tion	See Page *	Content	%
7	54	FREQUENCYOF TV NEWS VIEWING	
		1- Don't	15
		2- Less than once a week	2
		3- Once a week	1
		4- Several times a week	20
		5- Daily or more often	57
		X- DK/NA	7
8	54	TIME OF VIEWING TV NEWS	
		1- Don't	15
		2- Morning	3
		3- Evening (6 pm)	9
		4- Night (11 pm)	38
		5- More than once a day	43
		X- DK/NA	6
9	61	HOW MANY TELEPHONES DO YOU HAVE ACCESS TO (IN YOUR DWELLING, HOUSE, BUILDING)?	
		1- None	0
		2- One	59
		3- Two	33
		4- Three or more	8
		X- DK/NA	–
10	v	WHERE IS (ARE) YOUR TELEPHONE(S) LOCATED?	
		1- Bedroom	52
		2- Kitchen	21
		3- Living room	33
		4- Study, den, family room	5
		5- In another's lodgings	10
		6- Hallway	13
		7- Other	4
		X- DK/NA	1
11	61	WHOSE TELEPHONE DO YOU USE?	
		1- My (our) own	38
		2- Share with family	41
		3- Share with roommate	9
		4- Share with many others (Common)	18
		X DK/NA	1

Question	See Page	*	Content	%
12	61		WHAT DIFFICULTIES DO YOU HAVE IN USING THE TELEPHONE?	
			1- None	71
			2- Answering (lifting receiver, going to the phone)	6
			3- Dialing	19
			4- Using the directory	12
			5- Hearing	5
			X- DK/NA	-
13	62		WHAT SPECIAL DEVICES ARE ON YOUR PHONE?	
			1- None	80
			2- Push-button dialing (Digitone)	12
			3- Hearing or amplifying devices	3
			4- Speech aids	1
			5- Hands-free phone	2
			6- Several of above	2
			X- DK/NA	1
14	69	1	DO YOU PHONE YOURSELF OR DOES SOMEONE ELSE PLACE THE CALLS FOR YOU?	
			1- Myself	92
			2- Others	8
			X- DK/NA	-
15	62	2	HOW OFTEN DO YOU PLACE OR RECEIVE NON-BUSINESS TELEPHONE CALLS?	
			1- Never	7
			2- Weekly or less often	11
			3- Several times weekly	23
			4- Daily	42
			5- Several times daily	18
			X- DK/NA	1
16	69		DO YOU WRITE YOUR OWN CORRESPONDANCE OR DOES SOMEONE ELSE DO IT FOR YOU?	
			1- Myself	73
			2- Someone else	23
			X- DK/NA	5

---

1. This question was asked only in Montreal. Percentages are expressed as percentage of the Montreal population.

2. Category #5 (Several times daily) was used only in Montreal. Therefore, it's best to consider that about 60% of the respondants called or received calls at least daily.

Ques- tion	See Page	*	Content	%

17   **69**   DO YOU READ YOUR OWN CORRESPONDANCE OR DOES SOMEONE ELSE DO IT FOR YOU?

1- Myself	73
2- Someone else	23
X- DK/NA	5

18   **64**   HAVE YOU EVER USED THE POSTAL SERVICE FOR ANY OF THE FOLLOWING?

	Yes	No	DK/NA
a) Bank-by-mail	18	82	-
b) Correspondance Courses	20	81	-
c) Catalogue Ordering	43	57	-
d) Letters to the Editor,etc.	26	73	1

19   **57**   HOW MUCH OF A READER OF BOOKS WOULD YOU SAY YOU ARE?

1- Never read	18
2- Rarely read	8
3- Occasional Reader	18
4- Regular reader	57
X - DK/NA	-

20   **57**   HOW MANY BOOKS WOULD YOU SAY YOU READ EACH MONTH?

1- None	31
2- One	17
3- Two	17
4- Three	7
5- Four or more	18
X- DK/NA	13

21   **57**   WHAT DIFFICULTIES DO YOU EXPERIENCE IN TRYING TO READ BOOKS?

1- None	50
2- Holding books up	15
3- Turning pages	2
4- Seeing the words	24
5- Several physical problems	1
6- Several visual problems	7
7- Unable to read at all	3
X- DK/NA	3

Ques- tion	See Page	*	Content	%
22	57		DO YOU USE ANY SPECIAL AIDS OR DEVICES TO HELP YOU READ?	

1- None   68
2- Book holder   7
3- Large-print books   -
4- Page turners   4
5- Braille books (or other system)   7
6- Electronic aid   6
7- Magnifying aid   5
8- Cassettes (tape)   1
X- DK/NA   6

| 23 | 57 | | HOW DO YOU OBTAIN YOUR BOOKS? | |

1- No access/don't get any   8
2- Go to library   31
3- Purchase at bookstore   38
4- Borrow from friends   21
5- Bookmobile, visiting librarian   1
6- Have someone get them for me   3
7- Book club   3
8- By mail (CNIB)   7
9- Other   1
X- DK/NA   8

| 24 | 57 | 1 | DO YOU KNOW OF, OR USE, AN AVAILABLE
LIBRARY MOBILE SERVICE? | |

1- Yes, I use it, or have used it   4
2- No, but I've heard of it   50
3- No, and I've never heard of it   40
X- DK/NA   8

| 25 | 52 | 2 | ON AN AVERAGE WEEKDAY, HOW MUCH TIME DO
YOU SPEND LISTENING TO THE RADIO... | |

	Morning	Afternoon	Evening
1- Don't listen	22	37	39
2- Less than ½ hr.	14	7	17
3- ½ to 1 hr.	23	16	8
4- 1 hr. to 1½ hrs.	6	5	4
5- 1½ to 2 hrs.	8	6	10
6- 2 to 2½ hrs.	3	-	2
7- 2½ to 3 hrs.	13	14	11
8- Continuously	12	15	9
X- DK/NA	2	4	2

1. Each city has a different sort of mobile service.

2. Category 8 ("Continuously") was used only in Montreal.
Therefore it's best to consider that about 25%, 29%,
and 20% listened to radio almost all morning, afternoon,
and evening, respectively.

Question	See Page *	Content	%
26	54	HOW OFTEN DO YOU LISTEN TO THE NEWS ON THE RADIO?	

			%
		1- Never, don't listen	17
		2- Once a week or less often	7
		3- Several times a week	11
		4- Daily	34
		5- Several times a day	32
		X- Don't Know/ NA	-

27	v	WHERE IS (ARE) YOUR RADIO(S) LOCATED?	
		1- Bedroom	72
		2- Kitchen	22
		3- Living room	18
		4- Study, den, family room	3
		5- In another's lodgings	-
		6- Other	3
		X- DK/NA	2

28　53　1　WOULD YOU SAY YOU LIKE OR DISLIKE THE FOLLOWING KINDS OF RADIO PROGRAMS?

	Like	Dislike	DK/NA
a) Interview/Discussion	63	29	9
b) Dramas	33	51	17
c) Open-line/phone-in	36	57	8
d) Religious	27	60	14
e) News and public af-fairs	82	11	8
f) Music	90	5	6

29　54　2　HOW MANY NEWSPAPERS DO YOU READ EACH DAY?

1- None		20
2- One		46
3- Two or more		29
X- DK/NA		5

30　54　HOW DO YOU OBTAIN YOUR NEWSPAPERS?

1- No access, don't read them		11
2- Delivered to door (subscription)		47
3- Buy at newsstand		23
4- Read someone else's copy		3
5- Send someone to buy it for me		3
X- DK/NA		13

---

1. Since there are very, very few dramatic programs on radio today, preferences for them may reflect something other than actual listening frequency.

2. This question was asked with different words: "Which newspapers do you read regularly?"

Question	See Page *	Content	%
31	59 1	DO YOU READ SPECIFIC PUBLICATIONS FOR HANDICAPPED PERSONS?	

a) Ottawa: <u>Newsstand</u>

1- No, never heard of it	13
2- No, heard of it, though	10
3- No, can't get issues	23
4- I've read an issue or two	10
5- I've read several issues	15
6- I read every issue	13
X- Don't know, NA	16

b) Montreal: Any newspaper or magazine aimed at the Disabled?

1- Yes	38
2- No	38
X- DK/NA	24

Question	See Page	Content	%
32	54	WHAT DIFFICULTIES DO YOU HAVE IN READING THE NEWSPAPER?	

1- None	54
2- Holding it up to read	8
3- Turning the pages	11
4- Reading the words	-
5- Several physical problems	20
6- Several visual problems	2
7- Cannot read at all	-
X- DK/NA	9

Question	See Page	Content	%
33	69	DO YOU READ THE NEWSPAPER OR DOES SOMEONE ELSE READ IT TO YOU?	

1- Myself	56
2- Someone else	13
3- Electronic (tape) reader	2
4- Never read, anyway	8
X- DK/NA	5

Question	See Page	Content	%
34	54	ABOUT HOW MANY HOURS A DAY DO YOU SPEND READING THE NEWSPAPER?	

1- None, dont read it	18
2- ½ hr. or less	22
3- ½ to 1 hr.	26
4- 1 to 1½ hrs.	12
5- 1½ to 2 hrs.	8
6- 2 to 2½ hrs.	2
X- DK/NA	12

[1.] In Ottawa, respondents were asked specifically about <u>Newsstand</u>, a monthly newspaper published for disabled individuals by disabled individuals. In Montreal the question was more vaguely worded, referring to any regular publication for the disabled.

Ques-tion	See Page	*	Content	%
35	59	1	HAVE YOU WATCHED THE PROGRAM CALLED "DISABILITY" ON CABLE TV?	
			1- No, never heard of it	18
			2- No, heard of it, though	20
			3- No, can't get or watch	33
			4- Yes, have watched a few times	18
			5- Yes, I watch it regularly	-
			X- DK/NA	11
36	56		HOW MANY MAGAZINES WOULD YOU READ IN A TYPICAL MONTH?	
			1- None	47
			2- One	13
			3- Two	18
			4- Three or more	21
			X- DK/NA	3
37	56	2	ABOUT HOW OFTEN WOULD YOU PICK UP A MAGAZINE AND READ AN ARTICLE IN IT?	
			1- Never	35
			2- Less often than weekly	9
			3- Weekly	13
			4- Several times a week	11
			5- Daily	6
			6- "Regular"	10
			X- DK/NA	18
38	38		LIVING AND FAMILY STATUS	
			1- Dependent child	2
			2- Dependent adult	12
			3- Independent adult, in institution	25
			4- Head of household	23
			5- Spouse of head of household	14
			6- Institutionalized	10
			7- Independent, sharing accommodation	11
			X- DK/NA	5

1. The program "Disability" is broadcast on Skyline Cable-vision in Ottawa only. Percentages are of the 40 Ottawa respondants. "Disability" is no longer produced.

2. Many respondants volunteers a category they called "regular" when they were unable to estimate their frequency of usage. These persons probably read an article at least weekly.

| Ques-tion | See Page | * | Content | | | | | | | | | | % |

Ques- tion	See Page	*	Content	%

39 65 1

DEGREE OF PERSONAL (FACE-TO-FACE OR BY TELEPHONE) INTERACTION WITH THESE INDI-VIDUALS:

	1	2	3	4	5	6	7	8	9	X
a) Personal Physician	-	24	28	24	10	4	5	6	1	-
b) Social Worker	23	47	9	6	3	4	3	2	2	3
c) Rehab counsellor or Worker	27	44	4	4	5	1	1	2	2	10
d) Family members	1	6	1	8	6	10	11	8	50	-
e) Social or Church Clubs	15	44	-	2	8	6	8	8	3	5
f) Friends	3	26	-	1	2	6	18	16	25	4
g) Teachers/instructors	25	43	1	1	-	1	1	4	14	10
h) Clergy or Church	20	39	2	3	6	1	17	4	7	3
i) Organizations for the Disabled	17	29	5	5	11	9	10	4	6	7

40 44 2

HOW WOULD YOU CHARACTERIZE YOUR SKILLS AT EACH OF THE FOLLOWING?

	Good	Fair	Poor	Unable	DK/NA
a) Reading	56	18	10	17	1
b) Writing(Hand)	35	17	23	26	1
c) Typing	31	14	9	45	2
d) Use of Camera	45	10	7	34	6
e) Tape Recorder(portable)	43	9	2	10	38

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1. For these frequencies, the categories are as follows:
   1=no longer
   2=never
   3=Yearly or less
   4=Several times yearly
   5=Monthly
   6=Several times monthly
   7=Weekly
   8=Several times weekly
   9=Daily or more often
   X=DK/NA

2. For many respondants, the use of camera, typewriter or portable tape recorder was hypothetical: they neither owned nor had access to one. In these cases, their responses represent guesses rather than evaluations. The tape recorder question was introduced late in the study; thus only about 70 respondents were asked this part.

Ques-tion	See Page	*	Content	%
41	39	1	WHICH LANGUAGE(S) DO YOU SPEAK OR UNDERSTAND?	

1- English 27
2- English and French 44
3- French 29
4- English and another 1

| 42 | 38 | 2 | WHICH AGE CATEGORY DO YOU FIT INTO? | |

1- Under 15 years -
2- 15-24 years 24
3- 25-39 years 36
4- 40-64 years 30
5- 65 years and over 11

| 43 | 43 | 3 | HOW WOULD YOU RATE YOUR PHYSICAL HEALTH (APART FROM PHYSICAL DISABILITY)? | |

1- Excellent 13
2- Good 65
3- Adequate 10
4- Poor 8
5- Very poor -
X- DK/NA 3

| 44 | 43 | 3 | HOW WOULD YOU RATE YOUR GENERAL EMO-TIONAL ATTITUDE IN TERMS OF HOW FRE-QUENTLY YOU FEEL LOW IN SPIRITS? | |

1- Never in low spirits -
2- Rarely dispirited 20
3- Sometimes 43
4- Frequently 38
5- Always -
X- DK/NA -

| 45 | 43 | | HOW MUCH DIFFICULTY WOULD YOU SAY YOU HAVE HEARING AND SEEING IN COMMON SITU-ATIONS SUCH AS RADIO, TV, CONVERSATION, TELEPHONE, AND READING? | |

	Hearing	Seeing
1- No difficulty	87	54
2- A little difficulty	8	11
3- Some difficulty	3	8
4- Extreme difficulty,unable	3	27
X- DK/NA	-	1

1. Ottawa had only 2 uniligual francophones; Montreal had only 7 unlingual anglophones.
2. 96% of the 15-24 years category live in Montreal.
3. This question, from Reaching the Retired, was asked only of the Ottawa respondants.

Ques- tion	See Page	*	Content	%
46	67		HOW MUCH DIFFICULTY DOES YOUR DISABILITY CREATE FOR YOU IN TERMS OF GETTING OUT AND ABOUT?	
			1- No difficulty	35
			2- Rarely any difficulty	19
			3- Sometimes difficult	24
			4- Frequently difficult	14
			5- Always difficult or impossible	8
			X- DK/NA	2
47	67		HOW FREQUENTLY DO YOU GET OUT OF YOUR DWELLING (HOUSE, INSTITUTION) ?	
			1- Never	2
			2- Rarely	7
			3- Monthly	2
			4- Several times a month	9
			5- Weekly	7
			6- Several times a week	25
			7- Daily	50
			X- DK/NA	-
48	44		DO YOU OR CAN YOU DRIVE A CAR NOW?	
			1- Yes	16
			2- No	79
			X- DK/NA	6
49	68		DO YOU OWN A POCKET CALCULATOR OR HAVE READY ACCESS TO ONE?	
			1- Yes	17
			2- No	74
			X- DK/NA	10
50	68	1	HAVE YOU HEARD OF ELECTRONIC POCKET CAL-CULATORS?	
			1- Yes	48
			2- No	18
			X- DK/NA	36

---

1. Only the 54 individuals in Montreal who said they did not have such devices were asked this question. Strictly speaking, about 1 of 7 respondants in Montreal had never heard of electronic pocket calculators, about 14%.

Ques- tion	See Page	*	Content	%
51	39	1	WHAT WAS THE LAST LEVEL (YEAR) OF EDUCATION YOU HAVE OBTAINED?	

1- No formal education ... 5
2- Elementary or less ... 21
3- Some High School ... 19
4- Completed high school ... 15
5- Some post-secondary(or currently ... 21
   enrolled)
6- Technical/vocational degree ... 6
7- University degree ... 14
8- Post-graduate degree or work ... 1
X- DK/NA ... 1

| 52 | 38 | | WHAT ARE YOUR LIVING ARRANGEMENTS? | |

1- Live alone ... 18
2- Live with spouse and dependents ... 16
3- Live with family or relatives (exc. ... 36
   as described in 2 above)
4- Shared accommodation ... 19
5- Institutionalized ... 15
X- DK/NA ... -

| 53 | 39 | | CURRENT EMPLOYMENT FREQUENCY | |

1- Full-time ... 29
2- Part-time, regular ... 15
3- Occasional or irregular ... 4
4- Never, no employment ... 49
X- DK/NA ... 4

| 54 | 39 | | TYPE OF EMPLOYMENT(WHEN EMPLOYED) | |

1- Clerical ... 10
2- Manual-skilled (artisan) ... 2
3- Manual-unskilled ... 24
4- Professional ... 19
5- White collar ... 14
6- Other ... -
X- DK/NA, never worked, no skills ... 18

| 55 | 67 | | HOW FREQUENTLY DO YOU DO VOLUNTEER
WORK? | |

1- Daily ... 5
2- Several times weekly ... 4
3- Weekly ... 6
4- Several times monthly ... 8
5- Monthly ... 5
6- Rarely ... 4
7- Never ... 56
X- DK/NA ... 14

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1. The educational systems differ between Ottawa and
   Montreal. Consequently the categories differed in
   wording. They have been matched in this table.

Question	See Page	*	Content	%
56	38	1	INTO WHICH OF THE FOLLOWING CATEGORIES WOULD YOU PUT YOUR (FAMILY) INCOME?	
			1- Less than $2,000 annually	37
			2- Between $2,001 and $6,000	25
			3- Between $6,001 and $10,000	11
			4- Between $10,001 and $15,000	16
			5- Greater than $15,000 annually	7
			X- DK/NA	5
57	39		SEX	
			1- Female	48
			2- Male	53
58	44	2	DISABILITY	
			1- Multiple Sclerosis	14
			2- Cerebral Palsy	20
			3- Paralysis (para-, quadra-,hemi-ple-gia)	24
			4- Arthritis	13
			5- Lung	2
			6- Blindness	29
			7- Deafness	2
			8- Speech loss	2
			9- Sensory combination, other	2
59	--		CITY OF RESIDENCE	
			1- Ottawa	39
			2- Montreal	62

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1. Respondants were asked to indicate the range only. We have no way to verify the accuracy of their estimates. Individuals were asked to include family income when they lived with, were supported by, or supported a family. All the category #1 (Less than $2,000 annually) individuals lived in Montreal. The Ottawa sample is overly represented by families; when this fact is used in conjunction with the generally higher incomes in Ottawa, it can be seen that the income distribution is highly skewed because of our sampling procedure.

2. These disabilities represent a medical-physiological nosology rather than functional disability. However, we are unable to evaluate physical disability in terms of physical functional impairment from a short interview and hence have resorted to this classification.

Ques-tion	See Page	*	Content	%

| 60 | 68 | 1 | SOURCE OF INFORMATION ABOUT EXISTENCE OF PORTABLE ELECTRONIC CALCULATORS | |

1- Friends 33
2- Relatives 14
3- On exhibit in store or elsewhere 11
4- Newspaper 22
5- At work 7
6- TV 4
7- Radio 7
8- Magazines 2

| 61 | 69 | 2 | THE MOST IMPORTANT PROBLEM(S) FACING THE DISABLED. | |

1- Interaction, isolation, activity 20
2- Mobility, transportation 16
3- Poverty, lack of employment 14
4- Reaction, attitude of public 11
5- Integration with society of "normals" 9
6- Self-image, emotional problems 13
7- Access to buildings and services 11
8- Dependence 9
9- Other 19
Illness, communication, energy, housekeeping, housing, government, shopping, reading, information, education, aids, ageing

| 62 | 56 | 3 | WHICH RADIO STATIONS DO YOU LISTEN TO? | |

1- CBO 27
2- CFRA 23
3- CFMO 17
4- CKOY 17
5- CBO-FM 15
6- CFGO 10
7- CJRC 8
8- FM Stations 8
9- Other (CKBY, CKCH, CHOM) 13
X- DK/NA 13

1. Only 45 individuals expressed any idea where they had first heard of these devices. Consequently, the percentages are only of these 45 individuals. Remember that 48 individuals said they had heard of them, but 37 were not asked this question.

2. Many volunteered several. The total percentages add to far greater than 100%.

3. This data is for Ottawa only. Several individuals mentioned several stations. One listens to "FM" all day without knowing what. Percentages are of the 40 Ottawa respondants.

DERIVED VALUES (Not directly tested)

Item	See Page	*	Content	%
63	74	1	TOTAL TV VIEWING TIME	
			1-Up to 1 hr. daily	7
			2- 1 to 2 hrs.	24
			3- 2 to 3 hrs.	41
			4- 3 to 4 hrs.	17
			5- 4 to 5 hrs.	9
			6- 5 to 6 hrs.	1
			7- 7 hrs. and more	1
			X- Can't determine	2
64	74	2	TOTAL RADIO LISTENING TIME	
			1- Up to 1 hr. daily	6
			2- 1 to 2 hrs.	28
			3- 2 to 3 hrs.	21
			4- 3 to 4 hrs.	16
			5- 4 to 5 hrs.	11
			6- 5 to 6 hrs.	3
			7- 7 hrs. and more daily	16
			X- Can't determine	2

[1.] This distribution was derived by adding the three tv viewing times together. For two individuals, the number of DK/NA entries was too great to estimate the total viewing.

[2.] This distribution was obtained by adding the three radio listening times together. When the code indicated "continuous listening" (Montreal respondants only), the number 4 hrs. was used in the computation. As with tv, estimation of total radio listening for two respondants was impossible.

DERIVED VALUES (Not directly tested)

Item	See Page	*	Content	%
65	75	1	TOTAL MASS MEDIA USAGE TIME	
			1- 3 Hrs. or less	20
			2- 3 to 4 hrs.	8
			3- 4 to 5 hrs.	8
			4- 5 to 6 hrs.	10
			5- 6 to 7 hrs.	8
			6- 7 to 8 hrs.	20
			7- 8 to 9 hrs.	10
			8- 10 hrs. or more	18
			X- DK/NA, can't estimate	2
66	52		NUMBER OF RADIOS	
			1- None	-
			2- One	64
			3- Two	23
			4- Three or More	8
			X- DK/NA	5

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1. This distribution was derived by adding, for each individual respondent, the three tv viewing times, the three radio listening times, and the newspaper reading time estimate. Not included are book and magazine times. For two individuals, it was impossible to make estimates because they had a large number of DK and NA entries among these seven addends.

APPENDIX II

Organizations Contacted

A. Ottawa

Ability Centre (March of Dimes): Mervin Sabey[1]
Bell-Northern Research: Horst Arndt
Citizen Advocacy: Em Bradette
Canadian Arthritis and Rheumatism Society: Barbara
        Stokes
Canadian Broadcasting Corporation (Research Dept.):
        Irwin Schulman
Canadian Council of the Blind
Canadian Cancer Society: Helen Fischer
Canadian Haemophilia Society: Rita Hill
Canadian Hearing Society: Phil Parker
Canadian National Institute for the Blind: Gordon
        Sheppard
Canadian Nurse's Association
Canadian Red Cross Society: Mrs. Honeywell
Central Mortgage and Housing Corporation: Mrs.
        Goldblatt
Central Volunteer Bureau
Centre de Service Sociaux (Municipality of Hull):
        Lise Lacoste
Community Information Centre: Huguette Petruk
Council on Aging (The): Margery Boyce
De Liuw Cather: Wayne Bowes
Department of Veterans Affairs: A. Mainville

A. Ottawa (Continued)

      Good Companions' Day Centre (The): Margo Borenstein
      Hard of Hearing Club: Muriel Allen
      Health and Welfare Canada: Monique Houle, Suzann
           Paquette, Lola Wilson
      Information Service for the Disabled
      Muscular Dystrophy Association of Canada (The)
      Meals on Wheels: Mrs. Sparks
      Multiple Sclerosis Society of Canada: Bev Gray
      National Capital Association of the Deaf: John Kidd
      National Library: Ross Hotson
      Newsstand: Joan Black
      Ontario Ministry of Community and Social Services:
           David Vincent
      Ottawa Arthritis Association: Miss Morin
      O C Transpo: Ernie Payne
      Ottawa-Carleton Tuberculosis and Respiratory Dis-
           eases Association: Marlene Miles
      Ottawa Civic Hospital (Speech Clinic): Mrs. Sinn
      Ottawa Crippled Children's Parents Association: Ruth
           Swedlove
      Ottawa Distress Centre: Dorethy Starr
      Ottawa Handicapped Association: Mary Sayons
      Ottawa Public Library (Books for the Housebound):
           Miss Arcand
      Ottawa Senior Citizens Council: Sally Billing ("Coming
           of Age")
      Regional Municipality of Ottawa Carleton: Rick Huband
           (Assistant to the Chairman), Mrs. Yllo (Social
           Services Department)
      Rehabilitation Institute of Ottawa: Jacqueline Holzman
      Royal Ottawa Hospital
      Skyline Cablevision, Ltd.
      Social Planning Council: Mrs. Tarasoff, Bill Zimmerman,
           Imelba Chenard
      STAND: Charles Sheppey
      United Handicapped Groups of Ontario: Mary Sayons
      Victorian Order of Nurses: Mrs. Caloren
      Visiting Homemakers Association of Ottawa: Daisy
           Zimmerman
      *-Individuals: Heather Pigden, Bob Lane, Mary Sue
           Devereaux, Claire Hystek, Diane Jemus

B. Montreal

Association Canadienne des Aveugles
Association Canadienne des Paraplegiques: Gaetan
    Bourgoin
Association des Centres des Services Sociaux du
    Quebec
Bell Canada: Mark de Lanux
Canadian National Institute for the Blind: Michel
    Jeffe, Fernand Huneault
Centre de Depannage et Assistance pour Vieillards
    Defavorises et Handicapes: Mme Couillard
Centre de Readaptation Sociale
Centre des Services Sociaux Ville Marie
EDUCFILM: Michel Moreau
Federation des Loisirs et des Sports pour les
    Handicapes du Quebec
Golden Age Association
McGill University: Daniel Ling
MacKay Center for Deaf and Crippled Children
Maison Lucie Bruneau (La): Jacques-Gilles Laberge,
    Micheline Roy
Mayor's Commission on the Handicapped: Yvon Lamar
Montreal Association for the Blind and Lethbridge
    Readaptation Centre: Dorethy Allen, Irene Macagy
    Bill Rutkin, Mrs. Palmer
Parade des Dix Sous pour les Handicapes Physiques
Quebec Society for Crippled Children
Rehabilitation Institute of Montreal: Bernard Primeau
Societe d'Aide aux Enfants Dyslexiques
Tel-Aide

C. Other Locations[3.]

American Foundation for the Blind, 15 W. 16th St.,
    New York, New York 10011, U. S. A.
Bell Canada, Toronto: Steve Zigany
Canadian Association of the Deaf, P. O. Box 546,
    Richmond Hill, Ontario L4C 4Y8 (National Com-
    municative Skills Program)
Canadian Paraplegic Association, 520 Sutherland Dr.,
    Toronto, Ontario M4G 3V9: G. K. Langford, Manag-
    ing Director
National Fund for Research into Crippling Diseases,
    Vincent House, Springfield Road, Horsham, West
    Sussex RH12 2PN, England: Jean Bray

C. Other Locations (Continued)

Ontario Association of Professional Social Workers,
    696 Yonge Street, Suite 801, Toronto, Ontario
    M4Y 2B1: Paul Dodd
Service Center for Visually Impaired, Inc., Flint
    Michigan, U. S. A.: Rev. W. C. Jenkins, Execu-
    tive Director
Transportation Systems and Software, 2249 Yonge St.,
    Suite 303, Toronto, Ontario M4S 2B1: Ben Barkow
University of Pennsylvania (Student Committee for
    the Disabled), 4043 Baltimore Avenue, Apt. A-5,
    Philadelphia, Pennsylvania 19104, U. S. A.:
    Steve Cohen

Notes:

1. The name given following the association title is
that of the person contacted and may not be the president,
executive director, or public relations chief. These in-
dividuals were interviewed as was appropriate concerning
communication and the disabled.

2. These individuals were contacted without reference
to a formal organization. Heather Pigden is active in recre-
ational activities for the Disabled. Bob Lane chairs the
Committee on Transportation for the Disabled. Mary Sue
Devereaux wrote an Honors thesis at Carleton University con-
cerning communication and the retired. Claire Hystek was
the producer of"DisAbility"; Diane Jemus is taking over her
responsibilities for the production as of the spring of 1977.

3. Full addresses are given for these organizations
not in either Montreal or Ottawa. In most cases the indi-
vidual cited is noted with an organizational title.