

MEDIA MESSAGE

SUMMER, 1977

VOL. 6 NO. 4

VISUAL LITERACY

INSTRUCTIONAL DEVELOPMENTS

INDIVIDUAL LEARNING MODULES

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MEDIA MESSAGE

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COMMENT

by Lou Wise

SWAN SONG

I'm never quite sure if the speed with which the years slip away these days is a reflection of one's own age or of the age in which we live. In any case, the last two years have gone by quickly indeed. That's the length of time I've been the editor of Media Message. This is my last issue and it marks a time that will be a personal milestone for me. Have you ever noticed how much of our lives we measure and recall because of great chunks of time we commit to one task or another? Often, the chunks overlap or interweave, but they stand on their own as well.

At the Guelph conference, a friend asked how I felt about having spent two years as editor. I replied that I was pleased but not satisfied. As I thought about that later, it seemed we might all feel that way about AMTEC. I spoke of chunks of time. Many of us can define one chunk stretching back over six years to a 1971 conference in Edmonton. That really marked the beginnings of AMTEC. Only it wasn't called AMTEC then. An agreement had been reached to form the Canadian Educational Media Council (CEMC) comprised of EMAC, ETRAC, CSFA and CEA.* CEA agreed to provide an office and funds to pay a secretary for two years on the understanding that the other three organizations would work together to develop a comprehensive, national media association.

Following the two year period, CEA concluded its support and CSFA decided to continue as an independent organization. They felt there was not enough common ground. EMAC and ETRAC agreed to continue the national media association that had been planned three years earlier. Shortly after, AMTEC got it's name.

Edmonton, 1971 — Toronto, 1972 — Vancouver, 1973 — St. Catharines, 1974 — Calgary, 1975 — St. John's, 1976 — Guelph, 1977 — these are the milestones by which many mark their association with AMTEC. These have been the places where each national

conference in turn has been held.

Depending on how you count, AMTEC is seven years old or five years old. Media Message is somewhere between. Many will recall it was started as a modest newsletter by Judy Winestone when she was the secretary paid by CEA. It sprouted stronger wings in the hands of Fred Johnson at Queen's University in Kingston. Fred brought it a long way. I've tried to bring it a little further. In the next two years, I know Dave MacDougall will advance it another notch or two on its journey down the road as a respectable and respected educational media journal. The notches are milestones. Media Message has a few behind it. AMTEC has many. Perhaps that's part of the reason we might all be a little pleased with what has come out of AMTEC — but I hope none of us is yet truly satisfied.

Serendipity, (n. The gift of finding valuable or agreeable things not sought for; —)

About fifteen years ago, my son and I (he was eight then) went on a camping trip. Our last overnight stop was at Elora (north of Guelph) to see the Grand River Gorge, much heard about but not previously seen by us. We took pictures looking down into the gorge from the tourist paths along the upper edges. Not far from the park area with its paths, I noticed that a main street bridge across the river revealed simply an ordinary river between ordinary banks. It seemed the transition from common garden variety river to a gorge of great depth (about 200') must be very sudden and quite spectacular because the distance from the bridge to the full blown chasm was not very great.

Off the main street was a narrow dirt road that ended at an old limestone mill just a short distance away. We persisted and pushed through brush and debris around the back of the mill and discovered the transition we were looking for. There was a quite spectacular fall of water that turned the quiet river into a mini-cataract that crash-

ed to the bottom of the gorge. (No, Virginia, that's not the serendipity, we were actually looking for this!) I took some pictures.

Later, back at the Board of Education, I decided that the collection of slides might be useful as a sound/slide set related to the idea of kids and parents exploring the community and the countryside. To make it more useful, we printed a little folder including among other things, small sketch-maps showing the location of each photograph in the set. Anyone interested enough could then easily find their way to the same spots. In order to locate information on which to base the sketch-maps, I visited the local reference library. They had a book about the Grand River Valley and one chapter was about the Elora Gorge. The chapter heading was a pen and ink sketch and if you laid the slide I shot behind the mill over the sketch, it would have matched exactly. The photograph was taken in 1963. The sketch was dated 1899!

POSTSCRIPT

On the final evening of the conference at Guelph, about 15 or 20 of us drove to Elora for dinner. As it turned out, the restaurant is the old mill, cleaned up and nicely transformed. They've built a balcony at the back so the customers can view the cataract without scrambling around the narrow, tricky little paths of fifteen years ago. Pictures are much easier to take from the balcony, but I insisted on retracing the older steps to see if a picture in 1977 would match a picture from 1963 would match a sketch from 1899 would match — the real thing? Now that's not exactly educational media as we usually think of it. Or is it?

*For those unfamiliar with the contractions, EMAC = Educational Television and Radio Association of Canada; CSFA = Canadian Science Film Association and CEA = Canadian Education Association.

Note: Turn to page 22 for a look at the 1899 sketch and the 1963 and 1977 photos.

L. W.

REPORT FROM THE PRESIDENT

by Mal Binks

AMTEC '77, held at the University of Guelph from June 5 – 8 again hopefully provided information, inspiration and encouragement to all who attended. The wide variety of sessions were well filled, and many good comments were heard. To all those who were responsible for the planning, implementation and the myriad details that go into such a conference, our most sincere thanks for a job well done. I have personally attended every annual conference of AMTEC and our predecessors, CAVA and EMAC. Each has differed greatly, and each has set new standards and new goals for the next year. We are indeed fortunate that planning for AMTEC '78 in Regina, AMTEC '79 in Ottawa and AMTEC '80 in Edmonton is well under way. Suggestions for these events should be made without delay to the Regina Conference Committee, attention Jack Stead, or the Ottawa Conference Organizer, Ivan Barclay. (Consult your membership directory for addresses!)

Three Executive Board Meetings were held at Guelph during AMTEC '77, and much business was transacted. At this point perhaps some explanation of the Board's function is necessary. Your executive, because of the national nature of the organization and the few opportunities for meetings of the membership as a whole, must, of necessity, act as a legislative as well as a decision-making body, with reports presented to as many members as possible at an annual meeting held in conjunction with the annual conference. Throughout the year, reports of the other two regular Board meetings are carried in Media Message, and hopefully members will respond as necessary. Please do send us your comments, criticisms, and suggestions so that *your* organization can truly meet *your* needs and expectations. Members of the Board are elected by you from across Canada, and represent a broad spectrum of media and technology, and, we trust, are able to make decisions based on varied experience, interest and background.

One matter which occupied considerable time both in Board meetings

and in informal, small group discussions, was relations with our Quebec members. Our Winter 1977 issue carried a full report which indicated that a new Francophone national media organization had formed, separate from AMTEC, and with no wish to affiliate with us at the present. In spite of Gar Fizzard's very careful and complete explanation of our stand, some misconceptions were apparent at the Guelph conference, which we would like to remove.

- (1) No person is being excluded from AMTEC or AMTEC activities such as the annual conference because of language restrictions. From past experience it was found that translation services, which cost thousands of dollars, were used by only a handful of people who invariably understood English anyway.
- (2) While the working language of AMTEC will be English, members may communicate to the executive in French, but replies will usually be in English.
- (3) Submissions to Media Message or the Newsletter in French may be published in French, but no translation into English will be provided unless sent with the article.
- (4) At annual conferences, presentations may be made in French, but no translation into English will be officially provided. Any special interest group which may wish to hold French only sessions is welcome to do so, and the conference planners will be pleased to make facilities and programme time available.

In effect, the only change which has been made is the dropping of French translation of documents, notices, articles and conference sessions, since the expense did not seem warranted.

We trust that this explanation will clear the air somewhat, that our French speaking members will accept our apologies for any misunderstanding that may have occurred and that we may all work together in unity for the cause of educational media technol-

ogy and Canada. Your president welcomes your comments on the subject.

An important topic at any media conference is copyright, and one session on the subject was well presented at Guelph. The Federal Government will be sponsoring an invitational conference on the copyright revisions in the latter part of this year or early 1978. Should you have any concerns after reading the proposed copyright revisions and would like to assist a study group in preparing a submission to the government, please contact your president immediately.

Again this year AECT was well represented at AMTEC '77 by their president, William F. Grady, and Minaruth Galey, President of the International Division of AECT. During the coming year, your executive will be working closely with AECT to strengthen and broaden our affiliation. Many old-timers will remember that we had our beginnings at DAVI (later AECT) conferences in the United States.

Finally, may I add my personal thanks to those members of the AMTEC executive who are retiring this year. Fred Branscombe has served us long and faithfully, and assures us that he will be around to render assistance when necessary. Gord Jarrell has likewise given unstintingly of his time and energy over the years as well. After a short rest, I am sure that he will be ready for new AMTEC challenges. This is Lou Wise's final issue of Media Message as editor, but fortunately Lou is remaining as a Director of AMTEC. We are all much indebted to Lou for his untiring efforts to maintain such a high standard of excellence in the production of Media Message. He has indeed set a high standard for his successor, Dave MacDougall, to uphold.

A REPORT ON AMTEC '77

by Don McIntosh

Ideally a report on AMTEC '77 should be written by someone who attended the sessions and who can be objective about the conference. The committee members rarely get to attend as much of a conference as they would like. As co-convenor of the program committee, I still can't be sure that all of the planned concurrent sessions actually happened as scheduled. However, here goes.

For me, AMTEC '77 began a week before AMTEC '76 in St. John's when our offer to host the 1977 conference was accepted by the Board of Directors. After an almost aborted attempt to show a film about Guelph at the final banquet in Newfoundland, I had some long discussions with Gar Fizzard and others on the local committee about conference organization. The audio tapes I made of the interviews were subsequently lost on a Montreal Metro platform as an indirect result of an Air Canada strike. Not an auspicious beginning, I think. (Their reappearance six weeks later was a more hopeful sign).

In October, under Ab Moore's leadership, a large planning committee of educational media people from all over this area was convened. At this meeting the beginnings of a local committee were formed and an attempt was made to identify the diverse audiences at an AMTEC conference and to design a program that would be interesting, valuable, and sufficiently flexible to please everyone. Well, at least those were our goals — after Calgary and St. John's we had a high standard to shoot for. It was also decided to revive the Media Festival but as a showcase for materials rather than as a competition.

The committee chairmen were as follows: Ab Moore (general conference chairman), Pauline Weber and Don McIntosh (co-program convenors), Dick Ellis (registrar), Delia Blythe (treasurer), Leslie Richards (local arrangements), George Taylor and Tony Cooke (exhibits), Ron Eyre and Don Bates (tours), Sol Dworkin (Media Festival), Susan Richards (publicity), Fred Branscombe (hospitality).

Thanks to Les Richards and his committee the local arrangements planning went very smoothly. With the excellent facilities for conferences on campus it was largely a matter of coordinating the efforts of Food Services, the Conference Office and others on the campus who would be contributing to the conference.

The advance mailings for publicity and registration were another matter. Establishing the program well ahead of time so that specific information could be included with the registration form, getting the layouts to the printer three weeks ahead of time, and delays by the printers all contributed, but the most troublesome problem was the mailing list. Last year the St. John's committee made an excellent start with a computerized conference mailing list of over 2000. A glitch in the program resulted in only partial listings for a time and when we did get full lists they were very difficult to sort in relation to other lists we for Ontario and the updated AMTEC membership. Our recommendation is that a conference coordinator be on the Board of Directors with responsibility for continuity between conferences and the maintenance and updating of a conference mailing list. Once a list like that in St. John's has been established it would be unfortunate if it was not maintained.

We set our registration rates on the basis of estimates with a predicted registration of 250 as our break-even point. As the conference drew near we were a little nervous about whether we would make it but final registration pulled us through. The total registration was 338, of whom 208 were fulltime.

George Taylor and Tony Cooke and their committee arranged for exhibit space and facilities and 25 commercial exhibitors participated. The delegates found the exhibits well organized and useful and the exhibitors seemed very pleased with the arrangements made for them.

For the Media Festival, Sol Dworkin and his committee of teachers and media specialists in the Toronto area

judged 142 entries in the various categories. Awards of Merit were granted on a non-competitive basis. The criteria were how well the objectives were met and technical quality. Because only good programs were submitted a fairly high percentage (62) received Awards of Merit. Particularly outstanding ones received Awards of Excellence. Sol, who personally viewed all of the entries, felt that the standard of quality was extremely high. The number of entries showed a high level of interest in the Media Festival but the attendance at the showings on the Monday evenings was fairly light and many people did not seem to be willing to watch entire 30 minute programs. Perhaps for future Media Festivals a different presentation format could be considered.

I think I can safely say that there were no major hitches at the Conference. Almost everything went on as scheduled. The inevitable minor problems occurred but generally things went extremely smoothly. This is a credit to the cooperation and teamwork of everyone who participated. Of the 338 delegates there were over 100 who actively contributed by serving on a committee, giving a session, or chairing a session.

The Oktoberfest at the Concordia Club was the outstanding success of the social program. Everyone seemed to enjoy it including Fred C. Dobbs who kept us in stitches for 15 minutes longer than planned simply because he thought we were a great audience.

Evaluation of the conference was by word of mouth feedback from the participants as well as by Donald Gordon at the final luncheon. His observations were to the point and useful. It was gratifying to us that he personally enjoyed the conference.

For the most part the program was successful. Although there were a few genuinely low points, no session was cancelled and there were important highlights such as Dr. Russell Ackoff's keynote address, "Media Consciousness — Beyond Here and Now", Geoff Potter, Dr. Richard Clark and others.

I would like to add some personal observations concerning the program.

1. We attempted to run too many concurrent sessions which reduced attendance at each considerably.
2. Perhaps we are trying too hard to emulate a purely academic conference and we should look at a novel format as Donald Gordon suggested.
3. We should have identified the sessions more carefully so that people could have chosen among the meetings more wisely.
4. We initiated most of the presentations on the basis of the audiences we identified rather than issuing a general invitation for papers. The latter approach has decided advantages for selection.

5. A narrower theme for a conference might well be useful. Although we attempted to look at issues like the non-theatrical distribution of films in Canada and copyright, there was often too much else going on to attack these issues with any real hope of establishing some form of consensus or policy statement.

6. A widespread opinion seems to be that we should avoid a university setting for future conferences. Although there were few actual complaints about accommodation and facilities at Guelph, people seem to be willing to pay extra for the additional comfort and convenience of a hotel-conference centre. The latter location would also help to remove any feeling that the con-

ference is biased toward higher education.

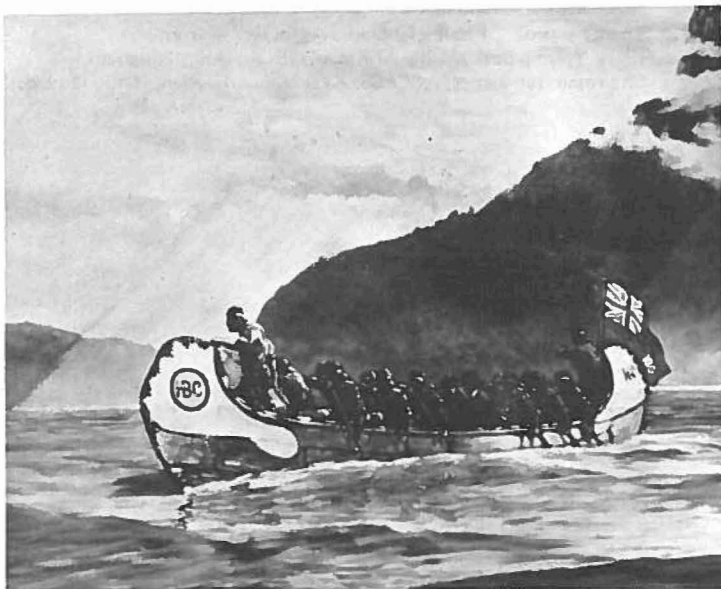
I would like to express my sincere personal thanks to everyone who worked so hard to make it a successful conference. The level of personal responsibility that people took above and beyond the call of duty was remarkable. Now that I have caught up on my sleep I can look forward to next year's conference.

Good luck, Reginal

Don McIntosh is Acting Director, Audio-Visual Services, University of Guelph, and was the Program Co-convenor for the AMTEC '77 Conference in Guelph.

(Photographs taken at AMTEC '77 follow on pages 6 and 7)

Search for the Western Sea



Immense trees, strong rains and permanent cedar villages told them that they were in country different from any they had seen before.

The Pacific with its warming Japan current must be close.

An unexpected obstacle! A range of snow covered mountains barred their way. Could they ever reach the sea?

But the Indian said the ocean could be seen from the summit-so they climbed once more.

But the Pacific Ocean could not be seen. On the other side of the mountains the wind was warmer. The trail led downwards-through heavy forest-to the Bella Coola Indians.

A young chief guided them in a canoe. The surrounding hills were shrouded in mist. Suddenly the wind rose-and the men could smell the sea!

The Pacific Ocean!

It was July 22nd, 1793: Latitude 52 degrees, 20 minutes, 48 seconds north!

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Gar Fizzard formally opens AMTEC '77 on Monday morning, June 6.



Before the conference got under way, the committee members prepared packages of materials for the delegates.



Dr. Russell Ackoff, University of Pennsylvania, delivers the keynote address, "Media Consciousness and the Design of the Future".



Theme session: "Provincial Media Agencies" — from left: Larry Young, Sask Media; Al Fasan, OECA; Doug Todgham, Chairman; Ian James, ACCESS; Kees Vanderheyden, Radio Quebec.



Les Richards, A/V Services, University of Guelph, introduces the multi-media presentation, "Media Consciousness Before Here and Now" at the Monday luncheon.



Tuesday morning: It's pancake breakfast time in the exhibit area.



The Exhibit Area: always a popular and useful place for conference delegates to spend some time.



Theme session: "Copyright" — from left: Claude Brunet, Dept. of Consumer and Corporate Affairs; Bernard Katz, Univ. of Guelph; Ab Moore, University of Guelph, Moderator; Les Modolo, Marlin Motion Pictures; David McQueen, York University (hidden).



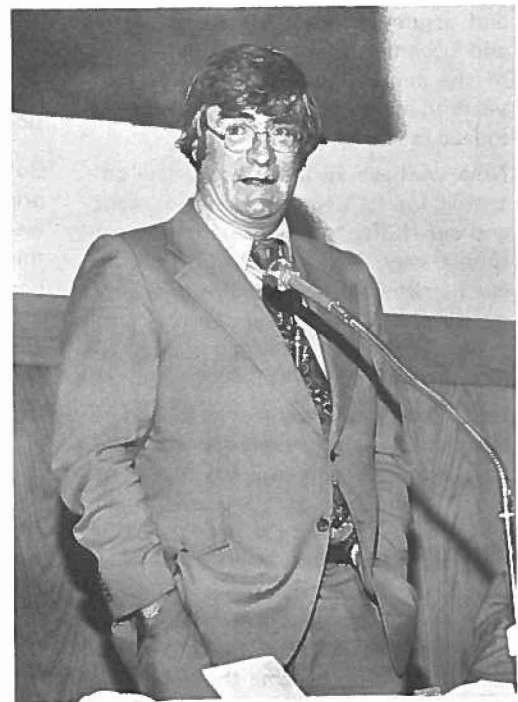
Michael Magee as Fred C. Dobbs entertaining the delegates at the "Oktoberfest in June" on Tuesday evening.



Gar Fizzard presents one of the first group of AMTEC Leadership Awards at the Annual Meeting.



Incoming President Mal Binks presides at the closing luncheon on Wednesday, June 8.



Communications consultant Donald Gordon was the Conference Reactor-Evaluator. His address at the closing luncheon — "Beyond Here and Now".

VISUAL LITERACY EXPLAINED

by Lon Nuell

WHY IT IS

Progress. Change. Innovation. Building. There are any number of reasons by which visual literacy can be explained. There are any number of reasons for it to have become such a viable force in recent times. Suffice to say that throughout history mankind has reached a time (in place and time) when it was mandated by the accumulation of effect, by events long since passed, that something new happen; then, too, it became apparent that the current way of doing was still alright, but that there were new directions which should be taken that tempted and teased the intellectual side of humankind, becoming more than could be ignored. And so, potential ways became real ways and humanity grew in knowledge. The human species in technological settings has a tendency to move to new thresholds. Knowledge begets knowledge and crossing a new threshold expands it even more. We are not idle in this process and it is through our activity that ways and means are provided for growth in the future.

Ideas are born. They are conceived in the minds of people and are given some unique form. They are nurtured and assume a more substantial form and become integrated into the ways of the people involved. But this takes years to achieve and in this patience is, indeed, a virtue.

Now we have visual literacy. The potential for its being is as old as sight and our ability to think in other than a simple way. It is the notion that we can be visually literate that is relatively new, not sight or seeing. We find ourselves on another threshold waiting to pass through or over it.

Long before we were able to understand why it was we were able to see, the ability to perceive was a part of the human package; and we survived and learned. The sensory system supplied all the data needed for, that was *basic to*, survival. Trial and error educated: The senses continued to pour information into the brain and somehow vision became the dominant sense.

For generations humankind operated on the notion of see and know. What they saw were images. Multitudes of different things and configurations all of which meant something to the individual, and this without words. Just images. Much later, words came to be and images were slowly put on a back burner. New ways replaced the old. Change: The rapidly of change was compounded. Technology improved upon itself and industrialization became the key feature of Western civilizations, and now, of course, others. Thus, we have grown from the printing press alphabet to a visual technology capable of generating information at a phenomenal rate, that has taken us back to images.

In North America we rely on visual media to entertain and inform. We are immersed in a vast pool of messages which derive from mixed visual modes (most of which, by the way, still employ print and words). Those times of basic ways of knowing and communicating are long past. Technology has us well in hand and continues to inundate us with the visual "word". We are a visually oriented culture, one that is more and more dominated by visual images. The notion that we will *go back to a visual print dominated system of knowing* should be considered far-fetched.

But back to my original point. Words, print, if you will, and mathematics were late comers on the scene. When the need developed and when we possessed the necessary basic skills and when the brain was programmed to handle such information, they happened. Whether we came to know more and have higher levels of intelligence because of the innate ability of the brain to do higher and higher things, or because we ever so slowly evolved to use in higher ways portions of the brain, I don't know. But the point is it did happen, and we are the more intelligent for it. We became literate. We had the capacity to know and, in time, to know more.

We know that information comes to us

in a multitude of ways and that communication happens as a result of confrontations with objects and events through the *senses*; and, that we then think about what was perceived to clarify the information and make sense of it. But the one sense that brings us most information is the visual one, and it has been this way since before paintings were done in Altamire and Lascaux. There has probably been little change in how we perceive, but more in how we process and deal with our perceptions because of our needs.

In our ability to think and act, we have changed markedly from the old days. Now we have great expectations, or should have. We should rightly expect to be *totally* educated and helped along to be *fully literate*, and these in the most complete sense. We have this as a birthright because of all that has gone before us; because of all that has been fed into the brain; because of its fantastic capacity to know. In fact some would say that this is already so, that we have attained literacy, and that our children have always been totally educated. After all, formal education has been in operation for quite a few years and we seem to have done alright. So, what's the problem?

Well, it is the studied opinion of some, and I must concur, that since the formalization of education we have been trained to learn in a way that denies an opportunity to know visually. We have purportedly become so skilled and well versed in the use of a few limited basic skills, that we have accepted them as *the way* to learn and we ignore the full potential of our sensory system, our visual system, and what it can add to our quest for literacy. We have been force-fed words and abstractions to the end that we develop our ability to think logically and analytically and become *literate*. But this is only part of the picture; in fact, it represents half of the total. A balance must be struck.

When you consider that our first real communication with the world, our ability to perceive an act or object and

react accordingly, was very quickly dominated by the visual sense, it should be fairly easy to determine that there would probably be an innate capacity on the part of the human being to develop the ability to use a visual language system as we learned to use a print language system. Our primary source of information was and continues to be from the visible world.

But we are taught to use print abstractions for communication to the complete neglect of images. But this is an oversimplification. My point is that even though vision is still a primary source for information, it no longer serves except as a receiver of print and very general, usually non-specific, information. There is no literacy here. No ability to see with skill. No ability to think about what is perceived.

In recent years, researchers have provided a wealth of information which explains a great deal about the brain and its specific functions, and suggests rather strongly that one whole hemisphere of the brain is not being used except in a most perfunctory way. Inherent in statements made by those researchers is the further suggestion that education has failed to educate the total child, and for the very simple reason that we have directed learning to only one hemisphere of the brain, not two.

Left hemisphere. Right hemisphere. Left brain. Right brain. The latter terms are preferable for they relate directly to the concept of *the* brain. The left brain performs logical, analytical and print oriented activities. The right brain involves itself with visual, spatial, movement and humanistic activities. One brain, two halves tied together by the corpus callosum. The brains, left and right, integrate and perform as a whole, yet they do possess independent, specific functions.

In education we have favored the left side over the right and have thus created a learning system that is biased and, unfortunately, self-perpetuating. We have created a sort of hemispheric discrimination.

We still profess an interest or concern with total education for our children, but do so in a most naive way. We do not understand that it cannot be achieved until learning is directed to both hemispheres and the child has

the freedom to select appropriate ways to learn. If the brain possesses the potential to permit learning to occur in both halves, it would seem reasonable to insist that education be directed to the whole. Half won't do. It is unacceptable.

WHY TODAY

Visuals have been with us for a long time. They were the means of communication to masses of unlearned folks, illiterates, for many, many years. Yet they managed to survive and allowed us to become what we have become. But the new twist in the visuals now directed to the masses is made immediate and sophisticated by technology. The tube has supplanted images painted on cave walls. Satellites transmit information faster than one can light a signal fire or raise an arm to flash a sign. Visuals are powerful and pervasive.

The scope of visual communication today is immense and includes everything from computer drawn and hand-painted images to photo-mechanical pictures, moving images on film and video, architecture and environment. All present visual information. They bombard us with it. The world and all that is in it is a *visible form* waiting to be "read" and understood, changed and appreciated or criticized. Visuals are powerful. They are pervasive. They are an ingrained part of our culture. They are the irritant, the seed around which the pearl might grow if

The whole world is the classroom, and the whole brain waits to be used to experience it. Yet, for the most part, we still deny access to the real world of images and information. All too often we supplant what is really there with print descriptions of it all and say, "see what I mean".

Children are born into a culture dominated by visual forms of communication. This orientation is more ingrained in them than in their parents, but that is rapidly changing. Kids have a visual base for learning and come to "formal" education ready to learn that way, as well as the other, and to develop those skills basic to "formal" visual learning.

If we in education would more seriously think about the ability of the learner to deal with the total realm of infor-

mation processing, we would open the door to a whole new world for them in which they could grow as more complete human beings. Not all of them would become super-intelligent, the majority wouldn't for that matter, but they will have more of an opportunity to learn and know. They will have the option to be more of what they can be. The visible world will come to be better understood: Sight will not be taken for granted.

You see, most of us use our eyes as if we had a blindfold on. We see and we really don't see. We don't understand. Our eyes function and tell us, but we have no skills and are, essentially, visually illiterate. We are wasting our most prized resource — the human brain.

WHAT IT IS

A lot has been said that hints at the meaning of visual literacy. It is a concept that has been formally defined but remains a bit elusive, and probably for the best.

Visual literacy as a concept has shattered the traditional meaning of literacy and has upset quite a few people. It is something that is manifested to some degree or another in people who have had the opportunity to develop and use visual skills, whether they be primitives or technologists. It is an end result. It is not a film, curriculum or particular image. It is an attribute, part of a total intellectual package that, once possessed, could change our relationship to the world in which we live ... for the better. And, it has been defined as follows:

"Visual literacy refers to a group of vision competencies a human-being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects and/or symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual commun-

ication."¹

Or, if you prefer: "Visual literacy means:

- 1) *competencies in visual languaging.*
- 2) *an ability to appreciate visible signs and symbols.*
- 3) *a process of developing competencies in visual languaging and appreciation.*
- 4) *a movement, formal or informal, fostering the development of competencies in visual languaging and appreciation.*"²

In each the key is skill development and thinking development. Visually literate is something we can become, to some degree, when directed learning experiences are available. Not just any experiences, mind you, but experiences directed to: Visual learning, visual thinking, and visual communication which include creative, aesthetic and critical thinking activities. Visual literacy is something which can be achieved by most people with a bit of guidance. It is something that all people, particularly those in technological societies have a right to.

Visual literacy is not a thing. It cannot be and must never be. It is an important quality now possessed by too few people, and is one that can lead to a humanistic feeling in, or for, the world in which we live.

Visual literacy floats. It is not attached to a particular discipline. There is a particular freedom here that is essential to the proper implementation of visual learning programs in our schools. The attainment of visual literacy, should be considered possible through any discipline if opportunities exist for one to explore content and concepts visually, and to create visual statements about what they have found. Each education discipline can own a piece of the pie. Perhaps media technology and art education have a slight edge, but at this time neither is dominant.

Visual literacy is a concept which gives cognizance to the fact that as visuals communicate individuals who would attain that goal must have more than a simple ability to understand the language used. This is an important part of the concept, for without language and the ability to give and take through it, literacy would not be possible.

WHAT IT MEANS NOW

Visual literacy means that we have acknowledged the importance of vision to the process of learning and realize its power. As Buckminster Fuller wrote:

*"Vision is an unlimited universal language; speech is local and limited. Though we have no sound name for an object, we can see and understand much of its behavioral pattern Sound travels at only 700 mph. We can see 70 sextillion miles, in any direction in the universe, and do so at 700 million mph Because of the speed of light the duration of a minute-long viewable sky event covers millions of years. Because light moves only at 700 million miles an hour and because of the stars' great distances from earth, we see the moon by light bounced off of it, which left the sun eight minutes ago The tiny, twinkling cluster of lights of Andromeda is a live show taking place a million years ago. We can see billions times billions of nonsimultaneous events at the same time. Television amplified humanity's information-acquiring and-correlating capability over a million-fold."*³

It will be through the implementation of visual education programs that we will come closer to the achievement of total education.

The acceptance of visual literacy as a major goal of the educational process would suggest a move away from the biased, discriminatory, one-sided education now foisted upon children to the development of more efficient learning systems for our kids. We have done well for ourselves during the hundreds of years we have relied on the left hemisphere for knowledge, but we have not come near our potential level of attainment. We cheat ourselves and our children because of our attachment to the printed word. But like Mother's apron strings, the time has long since passed when we should have broken away and struck out in new directions.

Visual literacy suggests that one would be able to come to grips with the spectrum of events which occur and are presented in our world and beyond. It means that we are able, each in some way, to do visual thinking, communicating and learning as well as employ-

ing the traditional means of learning and saying available to us. It means an active and purposeful integration of the two halves of the brain. It means the day of dull family albums, slides and movies is nearly past; that not only is the Nickleodeon a memory, but that television programming will be upgraded to suit the new levels of discrimination which will come to be; that the disasters of "franchise row" and uncontrolled, uneducated land use, inside of city boundaries and out, will soon be ended. It means that idealism is not dead and that from such dreams as these can come change that is essential to humanistic growth within citizens of the world.

It is so very important to educate our youngsters in ways that will bring them to the joys of learning and knowing; to make them feel good about themselves and others; to be able to communicate with intent and skill; to help them become more of what they can become.

Visual literacy is not a panacea for the ills of education or society, but it is a viable approach to a true total education and a meaningful one.

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This paper was presented at AMTEC '77 at the University of Guelph, June 1977, by Lon Nuell, Immediate Past President, The International Visual Literacy Association.

INSTRUCTIONAL DEVELOPMENT, ETC. LET'S LOOK AT THE BASICS!

by J.J. La Follette

WHAT IS THE "SYSTEMS APPROACH"?

A useful definition of the systems approach goes as follows: "a combination of people and things organized into an interacting flow of processes by which specific productive or other goals are reached." (Winfield, 1961) This implies that every aspect of the entire system, human or non-human, is to be examined, developed and fitted together into an efficient, easily operated whole. This approach was originally employed by industrial and military organizations throughout the world.

As adapted by education, the systems approach involves the careful designing and testing of a total system for the achievement of specific learning outcomes.

WHAT IS THE "SYSTEMS APPROACH" TO INSTRUCTION?

We may identify a systems approach to instruction in terms of the key components in an approach to organizing learning experiences:

- (a) Determine what the learner is expected to do following instruction;
- (b) Determine the entry requirements of the learner;
- (c) Consider all resources (man, machine, etc.) which will enable the learner to achieve the desired performance;
- (d) Organize an appropriate sequence of learning events and select media and methods which accompany the learning events to enable our learner to reach the selected learning objectives;
- (e) Evaluate the effectiveness of the instruction.

WHAT IMPORTANT CONSIDERATIONS SHOULD BE MET WHEN PLANNING A SYSTEMATIC APPROACH TO INSTRUCTION?

Let's consider three of the more important ones:

- A. *The systematic approach to instruction implies the optimum use of all available resources (human and non-human).*

This implies that specified roles should be outlined for the human resources (teachers, etc.) as well as for the non-human resources.

- B. *The system exists for only one purpose — the learner.*

The concept of a systematic approach to instruction is directly relevant to viewing instruction as essentially a learner-centered approach.

- C. *The systematic approach to instruction is characterized by a continuous cycle of trial and revision.*

You are aware of the importance of feedback in order to determine how effective your communication has been. Since the systematic approach to instruction attempts to discover the most appropriate combination of message, channel, practice, etc. which will enable a student to achieve specified instructional outcomes, a cyclical trial-revision pattern continues until it is apparent that the desired communication (instructional outcomes) has been attained.

WHAT IS THE INSTRUCTIONAL DESIGN PROCESS?

In order to initiate a systematic approach to instruction it is necessary to have an operational description of practical procedures to follow. The instructional design process fulfills this need. It is nothing more than the actual carrying out of a systematic approach. Operational procedures for engaging in the instructional design process may be found in most of the selected references on the Instructional Design Process listed below.

HOW IS THE INSTRUCTIONAL DESIGN PROCESS SIMILAR TO THE COMMUNICATION PROCESS?

The instructional design process may

be likened to analyzing a communication situation. The instructional designer (source) has in mind a specific intent (message and response to the message) which he wishes to communicate to a learner (receiver-interpreter). Therefore he must determine important characteristics of the learner (knowledge level, attitudes, previous experience, etc.) which will affect the fidelity of the communication. The designer must then make decisions relating to code, content, sequence, etc. (message design) and determine the media which will be used to present the message (channel selection).

A continuous cycle of trial and revision allows for feedback and accommodates refinement of the entire instructional procedure until it can be demonstrated that students are reaching a satisfactory level of proficiency.

WHAT IS INSTRUCTIONAL DEVELOPMENT?

A definition in current use reads as follows: *the application of an instructional systems approach of the analysis of and development of practical solutions to teaching and learning problems.* Wittich and Schuller (1973).

Thus it would appear that the term may be used interchangeably with instructional design. At least this seems to be happening in the literature. There is perhaps one factor which sets the two labels apart. People who speak of instructional development will nearly always refer to a team approach involving teachers, administrators, and specialists in subject, curriculum, instructional technology, and other areas. However, an individual teacher or communicator may quite properly apply these principles in his daily work and carry them out on individual topics.

WHAT IS AN INSTRUCTIONAL PRODUCT?

Many people have found it convenient to refer to the results of the instructional development process as an instructional product. This refers not only to the prepared instructional

media, containing the instructional message, but also includes a complete statement of anticipated outcomes and the procedures which it is necessary to initiate, in order to enable the learner to achieve those outcomes.

Media and resources with which the student actually comes into contact and which generate an essentially reproducible sequence of instructional events, are often called an Instructional Program. For a comprehensive review of instructional development activities associated with instructional products, see Baker (1973).

WHAT IS THE INSTRUCTIONAL PROTOTYPE?

This refers to an instructional product which is in an early stage of development. A prototype is complete enough to try out on an appropriate group of learners to determine how efficient it is in enabling the learners to achieve the objectives. It is then revised, based on feedback received, and undergoes more trial-revision cycles until the desired level of efficiency is reached.

WHAT ARE THE MAJOR ROLES OF EVALUATION?

Scriven (1967) first identified two broad areas as *formative* evaluation and *summative* evaluation. *Formative* evaluation refers to an ongoing collection of data in order to provide evidence as to whether the stated outcomes of instruction are being met. This information is then used to revise and improve the program. *Summative* evaluation is used to refer to evidence of the effectiveness of instructional products of systems, in order to make decisions relating to continuation and adoption.

WHAT IS EDUCATIONAL DEVELOPMENT?

Educational development has been described as a systematic process of creating new alternatives that contribute to the improvement of educational practices. (Hemphill, 1969). While "educational" is universally conceded to embrace a broader orientation than "instructional", this definition isn't really much different from the previous one for instructional development.

However, some authors have identified two major emphases within the process of educational development. Hemphill (1969); Schutz (1970). The *change support* or *change orientation* process stresses the improvement of the behavior of those who are engaged in educational practice (e.g. teachers). This popular emphasis on educational improvement through people, not product, has frequently been characterized by activities labelled "Professional Development."

The other emphasis, of course, is the instructional *product* development process, characterized by the instructional design or development process described above.

While arguing that a "pure" *instructional product* or a "pure" *change support* strategy is rarely reasonable, Schutz (1970) nonetheless expressed a philosophy embraced by developers who would adopt an instructional product development orientation: "*The availability of outcome-referenced methods and materials comprising a product constitutes a base for planning and managing human resources to enhance the attainment of specified outcomes.*" Schutz (1970, p. 51).

WHAT DOES ALL THIS HAVE TO DO WITH "INSTRUCTIONAL TECHNOLOGY"?

Here's a definition of instructional technology with which you may be familiar.

"..... *instructional technology goes beyond any particular medium or device. In this sense, instructional technology is more than the sum of its parts. It is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based upon research in human learning and communication, and employing a combination of human and non-human resources to bring about more effective instruction*" Commission on Instructional Technology (1970).

Sounds familiar doesn't it? So if you were to consider instructional technology to mean the same thing as a systematic approach to instruction you would not be far off. And of course the instructional design or development process is the practical

means for using instructional technology in instruction.

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This paper was presented at AMTEC '77 at the University of Guelph, June, 1977, by J.J. La Follette, Associate Professor, Faculty of Education, The University of Alberta, Edmonton.

DEVELOPING INDIVIDUAL LEARNING MODULES: SOME PROCESS CONSIDERATIONS

by J.J. La Follette

A JOINT PROJECT

"The Joint Project for Developing Individual Learning Modules in Mathematics, Science, and Audiovisual Education" was an outgrowth of a desire to incorporate a degree of individualization into courses in those areas of teacher preparation, as well as to capitalize on the availability of new instructional facilities in the Faculty of Education at the University of Alberta.

A grant from ALBERTA—Advanced Education and Manpower (Innovative Projects Fund) has provided funding, permitting project development activities to be ongoing for the past two years.

The final proposal approved by Advanced Education represented a consolidation of four initial individual proposals. A few basic commonalities from all the proposals were identified. These are stated below, along with a discussion of developmental activity presently accomplished.

The development process in each involves careful pre-planning by members of the Faculty and entails the use of practising professionals in the actual writing of materials and package developing.

The package development governed by pre-set objectives entails the use of technical personnel.

In practice, several informal arrangements were employed in order to achieve production of the individual learning modules. These involved in various ways: The Principal Developers, Contract Author-Designers, Student

Developers, Contract Assistant Developers and production personnel. These patterns for achieving development are discussed in greater detail below, in the section: *Instructional Development Considerations.*

The packages are to enable students to use a variety of learning styles in meeting the objectives of the packages.

There is still no provision of alternate media for meeting the objectives, in order to accommodate a variety of learning styles or student preferences. Formative development to the present has concentrated on one medium or combination of media to assist the student in meeting the objectives for a given topic. It is intended that continued formative development will result in providing alternate media routes to the same objectives.

In the audiovisual education area we have discovered a vocal minority which prefers to acquire all knowledge by reading. We plan to accommodate this group up to a point. However we feel that an audiovisual education course has a mandate to provide students with a wide range of experiences in interacting with many different media, so we expect to retain some instructional components which do not provide alternate media.

A learner using the packages should be able to do so at a time optimal for him or her.

The facility for individual study in the Faculty of Education, the Carrel Area, was open for very limited hours prior to the project grant. Obviously learn-

ers cannot use study materials at times optimal to themselves unless the facility providing the materials and delivery capability is open. The grant provided for additional personnel, which enabled the Carrel Area to stay open approximately 60 hours per week. Following termination of project funding, allocations within the Faculty of Education budget have been provided, which for the coming year, at least, will enable the facility to operate close to 70 hours weekly.

Packages should be designed so that the actual packages and the concept can be used in a wide variety of teacher education settings on campus and throughout the province.

Some of the components developed for all three subject areas are already in demand for use in other settings. No system for dissemination and distribution has been established, and it is probable that each group will develop its own approach. Many of these instructional products will be more suitable for dissemination following further stages of formative evaluation and development.

INSTRUCTIONAL DEVELOPMENT CONSIDERATIONS

Expediency, as opposed to following ideal practices, resulted in the variety of patterns for accomplishing the pre-planning, writing and production of packages:

- (1) *Contract and honorarium*

This approach was used by both

Science and Mathematics. Specialists were contracted to produce a "module" for individual study on a topic in which they possessed expertise. Frequently this consisted of refining materials already under development. Production was either by the authors, or by media centre production staff. Advantages: Expert knowledge at a relatively nominal expense. Capitalizes on previous development. Bound by agreement to produce, therefore puts product "on the shelf".

Limitations: Danger of limited interaction between author and developer. Inappropriate selection of media and mode more likely to occur. Lack of quality control. Author not involved in field testing.

(2) *Assistant Developer (term appointment)*

Used by audiovisual education. The assistant developer was close to completing an M. Ed. with a concentration in Instructional Technology.

Advantages: The assistant is theoretically "available" on a full-time basis over a stated period of time. Should allow for some formative development activity.

Limitations: The assistant developer is not bound to produce a specified product. Unless activities are tightly programmed, there may be no evidence of progress at conclusion of term appointment.

(3) *Informal Task Force: Student Developer(s), Principal Developer, and Production Staff*

When this approach was used by audiovisual education, the specifications were well developed before the production personnel became involved. In some cases a final product has not been completed, due to limitations indicated below.

Advantages: Free slave labor (graduate students). Knowledge and interest level may be high. Committed to some kind of goal in order to achieve a mark in a course. Usually results in detailed, usable specifications.

Limitations: Time — students taking other courses, etc. Product may not be developed to a point

where it can be used with classes by the end of a term. Requires continuous interaction to assure content and mode uniformity.

(4) *Principal Developer and Production Staff*

Advantages: Principal Developer has direct contact with produc-

tion source. Principal Developer is able to produce own specifications. Should assure a quality product.

Limitations: Principal Developer may have other duties and may not find time to carry out required tasks.

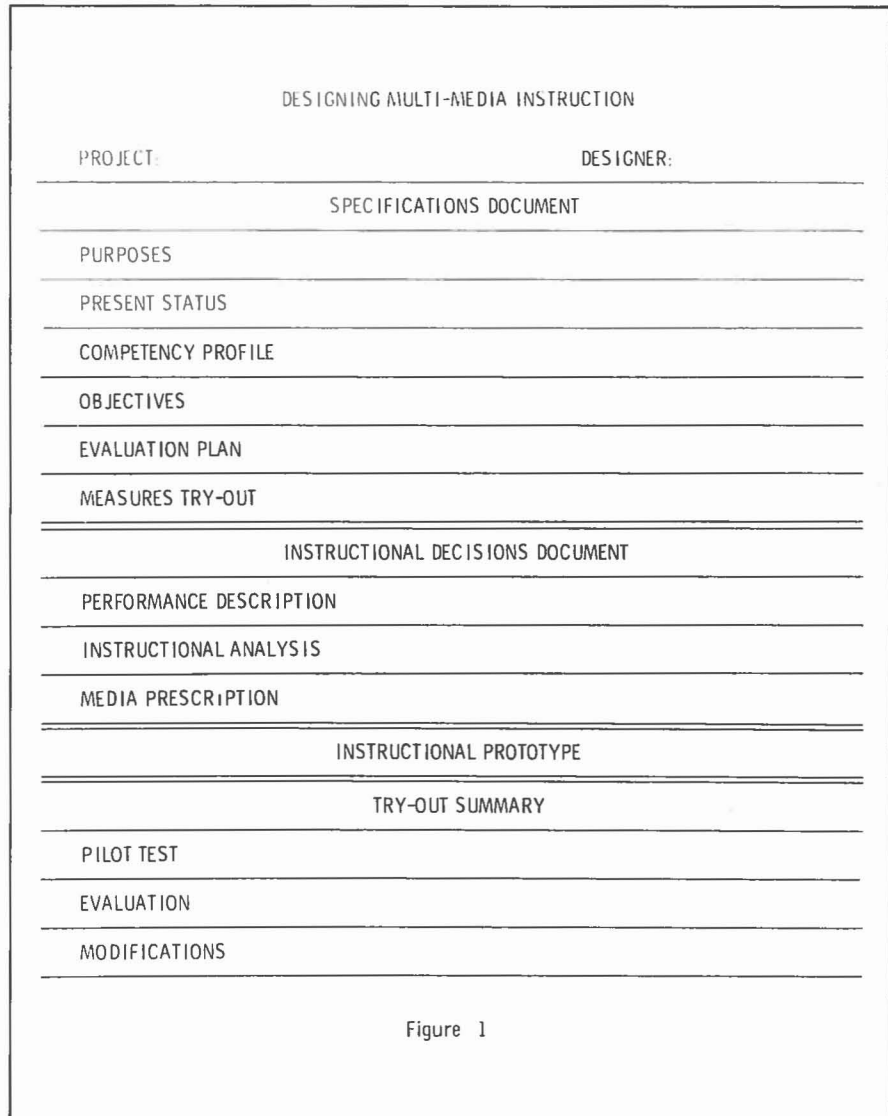


Figure 1

All of the above approaches assume relating development to a paradigm or model for the instructional design process. The nature of the paradigm and how it is operationally carried out is bound to effect the end result.

One consideration involved in using the Informal Task Force approach was to provide graduate students with experience relating to instructional design and development procedures. A relatively detailed paradigm was used with these groups. The steps involved are identified in Figure 1, which was

used as a check-list during design and development activity.

The procedures incorporated into this model are adapted from several sources. The overall process shows promise of ultimately evolving as a basic approach for designing multimedia instruction for a wide range of applications.

This paper was presented at AMTEC '77 at the University of Guelph in June, 1977 by J.J. La Follette, Associate Professor, Faculty of Education, The University of Alberta, Edmonton.

A DEMOCRATIC COMMUNICATION MODEL FOR INTERACTIVE TELECOMMUNICATION LEARNING

by René Lortie

1. SUMMARY

Is a *democratic* type of learning situation for *adult learners* possible using

- an audio-video
- multiple group
- completely interactive
- satellite mediated telecommunication system?

A theoretical study of the problem suggests that this type of learning situation can be achieved using such a system, given

- a communication model appropriate for a democratic group,
- the characteristics of the system,
- provisions designed to make maximum use of the potential of the system and reduce its possible disadvantages.

2. INTRODUCTION

This paper is taken from a theoretical study that was carried out as a preliminary stage to experimental research in teletraining.

Since to our knowledge the learning situation we wanted to set up was unique it was decided that we should first draft a theoretical learning model that met the initial requirements, namely:

- a democratic learning experience centered on the adult learner;
- a satellite-mediated, audio-video, multiple-group, completely interactive learning experience.

This paper deals particularly with the second aspect of the theoretical learning model, that is, how the characteristics of the telecommunication system used can influence a democratic learning process centered on the adult learner.

3. INITIAL DATA

The following are the conditions governing the experimental research that will be carried out following our theoretical study:

3.1 *Telecommunication system*

Five learning centres, one in a build-

ing in downtown Ottawa and four in the Education Building at Memorial University in St. John's, Newfoundland, will be linked in the following manner.

The signal will be relayed by microwave from downtown Ottawa to the ground station at Shirley's Bay, twenty miles to the west. From there, the audio-visual signal will be forwarded to the satellite (CTS), which will retransmit it to the portable ground station at Memorial University. From there it will be transmitted by cable to the four learning centres in the Education Building. Signals from Newfoundland will take the same route in the opposite direction.

The four learning centres in Newfoundland are connected directly by coaxial cable.

The system is completely interactive and there is two-way communication between each point.

It will be possible to use a facsimile system between the various points.

Each of the five learning centres will contain the following, among other things:

- TV monitors providing video feed of each of the other four leading centres;
- TV camera sending a picture of the participants in each centre to the other four locations;
- microphones;
- a crescent-shaped table in front of the participants' chairs.

To prevent feedback from the loudspeakers, participants will wear light headphones enabling them to hear clearly what is going on about them.

3.2 *Participants*

A total of twenty-five people will participate in the project: twenty-four learners and one educator. All the learners will be federal public servants from middle management positions. Twenty of the learners will be public servants working in St. John's. They will be divided into four groups of five; each group

will occupy one of the learning centres on the Memorial University campus. Four other public service employees working in the National Capital Region together with the educator will occupy the learning centre in Ottawa.

3.3 *Time and duration*

The experiment will be conducted from April to June 1977. Individual satellite-mediated sessions will be held every two days for two hours each day, for a total of forty-four hours of training via this telecommunication system.

3.4 *Methodology*

The approach will be democratic and learner-centered. This means that:

- Learners will be responsible for the content and form of the learning activity.
- The primary role of the educator will be that of a resource-person and animator.
- Each learner has access to learning that meets his own needs.
- All participants (learners and educators) are on an equal footing.
- The roles of educator and learner are interchangeable.
- Each participant contributes (through his knowledge, ability, experience and personal work) to the learning experience of his fellow participants.

4. COMMUNICATION MODEL

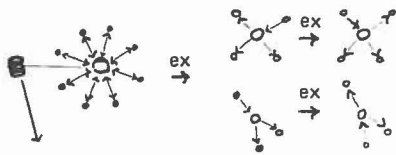
Research has shown that there is a type of network that meets the requirements of a democratic group: "Hopefully, the democratic group has an "all-channel" network in which all participants are free to comment on a 1-1 basis with all others, and to the group as a whole." (Brilhard, P. 26)

The characteristics of an "all-channel" network are as follows:

- all participants are on an equal footing;
- the group can split up simultaneously into as many subgroups

as mathematically possible;

- the formation of new subgroups goes on continually on the basis of interests, conversations and discussions; this gives the network maximum flexibility;
- everyone can communicate rapidly without having to obtain authorization from a moderator;
- everyone can express his opinion provided it is still relevant;
- question-answer exchanges are favoured;
- the high morale of participants is ensured;
- better performance in complex problem-solving. (Tubbs, Moss, p. 216)

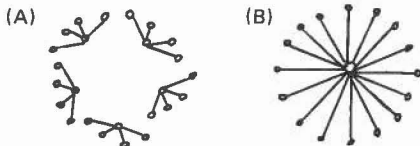


all communication channels, determined by the number of interactions possible for a given number of participants

The democratic communication model avoids the situations created by (A) *branching networks*, such as those made up of one spokesman for each subgroup, which would restrict twenty people to communicating with only one other person, and (B) *wheel networks*, in which a leader can communicate with everyone, but in which all the other participants can communicate with him only. Research on this (Tubb, Moss, p. 216) tends to show that the effect of this type of network would be:

- to lower the cohesiveness of a group;
- to reduce its creativity;
- to make it too dependent on its leader.

We would like to avoid all these consequences.



5. APPLICATION OF THE TELE-COMMUNICATION SYSTEM TO THE COMMUNICATION MODEL

The system we will use, which we have

already described briefly, includes a three-meter antenna at each end of the network; thus two-way *audio-video* communication is possible between the Ottawa terminal and the four terminals in St. John's. In addition, each of the four learning centres in the Education Building at Memorial University is connected directly to the other three by cable, thus providing a two-way audio-video link. A multiplex system will make it possible to transmit simultaneously on a single channel the four images produced in St. John's to Shirley's Bay. Hence the telecommunication mode we have selected will be multi-point and completely *interactive* in all directions, between each point.

Use of a medium of this type entails certain consequences that will doubtless have an impact on the communication situation.

5.1 Use of an interactive medium

The telecommunication system we will use is interactive in that it allows for two-way communication between two points in a network. Considered as a whole, the system would be more accurately described as multi-directional, since any point can establish contact with any other point.

According to Edmund Nuttall (pp. 23-25), who studied the system in an audio communication situation,

the two-way feature offers the following advantages:

- Immediate feedback and correction (p. 23).
- It allows easy exploratory behaviour of a cumulative nature (p. 25).
- More adequate flow of information (p. 25).

With regard to the *quantity* and *accuracy* of the feedback, Anna Casey-Stahmer (p. 40) places the interactive medium on the same level as interpersonal contact.

5.2 Use of an audio-video medium

We will be using an interactive *audio-video* model. According to Casey-Stahmer and Havron, the following are the characteristics of an audio-video system:

- Concurrent visual feedback (p. 32).
- Unburdening (p. 33).
- Instantaneous transmission of visual information (p. 53).
- Reduction of polarization (p. 58).

If audio-video is placed between audio and face-to-face communications, it can be inferred, on the basis of Nuttall's conclusions (p. 24) in his study of an audio system, that interactive, audio-video communication would also provide the following to a certain extent:

Please look after this bear!

PADDINGTON BEAR

HAS ARRIVED ON FILM AND IS
MAKING HIS HEADQUARTERS AT:



**INTERNATIONAL TELE-FILM
ENTERPRISES LTD.**
47 Densley Avenue,
Toronto, Ontario M6M 5A8
(416) 241-4483

- Toronto • Montreal
- Vancouver
- Winnipeg



FREE BEAR with every preview to Qualified Purchasers!
—LIMITED TIME OFFER

- Reduction of oral flow regulators.
- Increase in the percentage of information content in the message combined with a reduction in oral flow regulators, which are estimated at over thirty per cent of the messages in an audio situation.

In the opinion of Weston and Kristen (p. 130), an audio-video system would undeniably offer advantages greater than those of an audio-only system, with respect to all the important parameters in a teleconference situation which they studied.

5.3 Use of a medium: positive effects on a communication model

- Saves time.

Casey-Stahmer and Havron (p. 72) found that the same task takes less time in satellite-mediated meetings than in face-to-face meetings.

- Improves concentration and comprehension.

Weston and Kristen (p. 130) found that the audio-visual medium improves concentration and comprehension.

We can also add that compared to a face-to-face situation, particularly where a medium-sized group is involved, the audio-visual medium removes the physical distance disparities between the various members of a group. In other words, the audio-visual medium makes it possible to arrange participants in a more equitable and convenient way, so that at any given time each participant has an equivalent "visual presence" with regard to each of his fellow participants.

5.4 Use of a medium: negative effects on the communication model

Satellite mediation of the "all-channel" model adopted restricts the communication process in the following ways:

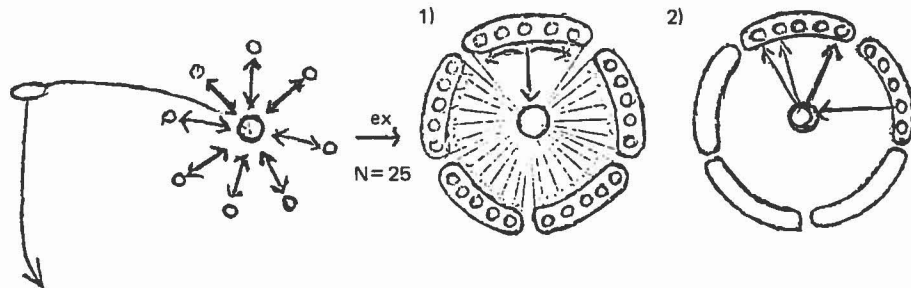
- by using a single channel, we lose the possibility of holding simultaneous conversations; this feature is an important attribute of the "all-channel" model in face-to-face situations;
- since only one conversation or discussion can be carried on at a time, satellite mediation causes the model to lose a great deal of

its flexibility for allowing participants to break into smaller groups;

- the non-verbal aspect of communication, which in the opinion of some researchers (R.L. Birdwhistle, in Brillhart, p. 48) accounts for up to sixty-five per cent of the information communicated, also suffers consid-

erably because of the size, resolution and partiality of the image transmitted, among other things;

- complex mechanisms, which are used unconsciously (such as turn-taking in a discussion) and which govern communication in face-to-face situations, will very likely be disturbed.



a single communication channel for all participants

6. ACTION TO BE TAKEN TO OPTIMIZE USE OF THE SATELLITE-MEDIATED COMMUNICATION MODEL

There are various ways of overcoming the difficulties caused by the use of the medium, while making the most of its advantages, thus obtaining maximum profit from the model.

6.1 We should be aware of the fact that the system imposes the restrictions we have mentioned and of the consequences of these on the educational process.

6.2 We should make a more in-depth study of interaction phenomena within medium-sized groups, particularly groups in satellite-mediated communication situations.

Experiments on this are being carried out at present under the direction of Nicole Mendenhall at the Carleton Place Development Centre, outside Ottawa.

The purpose of the research is to reproduce an interactive, audio-video, multiple-group communication situation to collect data in the form of

- questionnaire,
- interaction analyses, and
- observations

that can be applied to the phenomena likely to occur in a satellite-mediated learning experience.

6.3 We should develop a procedure to enable participants to benefit as much as possible from the satellite-mediated learning experience. This procedure should be suggested to the participants but not imposed upon them.

6.3.1 Necessity of developing a procedure

- The need is greater than in the case of face-to-face meetings. (Casey-Stahmer, p. 35)
- The need is not as great as in the case of audio-only situations. (Casey-Stahmer and Havron, p. 64)

6.3.2 Purpose of a procedure

To ensure the best possible use of the medium.

"Basically, operational guides perform the following three functions:

- Securing and maximizing feedback between terminals.
- Fully exploiting system signal transmission capability.
- Assuring adequate feedback." (Casey-Stahmer and Havron, p. 63)

6.3.3 Consequences of the use of a special procedure

- Better group attitude. (Casey-Stahmer and Havron, p. 64)
- Better performance sooner.

"There are two pieces of evidence

which strongly support the major hypothesis that, as groups have achieved a satisfactory operational procedure or organization, there will be no difference among the nets in times required to solve the problem. First, the differences between the All-Channel and Wheel groups disappeared at the end of 20 trials. "These findings hint that the Wheel groups, with the least difficult organizational problems, organized earliest; and that the All-Channel groups, with the more difficult job, *organized* more slowly, but were eventually *performing as well* as the Wheel groups." (Collins & Ravan, p. 151)

– Does not bother participants. (Casey-Stahmer and Havron, p. 63)

6.3.4 *Provide learners with the information available on the characteristics of the system used (advantages and disadvantages)* (Daniel, Turok, p. 137)

6.3.5 *Agree on a procedure capable of minimizing the interference to the Communication process caused by the limitations of the system (e.g., agree on how to take the floor, length of remarks, and so on).*

"Meetings will ordinarily go more smoothly if there is consensus as to what the rules are". (Casey-Stahmer and Havron, p. 35)

This procedure should be arrived at by and for all participants after sharing in common all the available relevant information.

This information will be obtained from:

- 1) use of the system for a certain length of time;
- 2) documentary research related to the subject;
- 3) observation of simulation sessions;
- 4) analysis of data obtained from the sessions.

6.4 Make an extra effort to prepare for satellite-mediated sessions so as to avoid misunderstanding regarding the content of the sessions.

6.5 Reduce dissatisfaction caused by the medium.

- *The medium must remain as unobtrusive as possible.* (Daniel, Turok, p. 138)

- *Provide a visual link that meets the needs of the participants.*

"It is the general agreement among a/v users that the overview picture does not allow them to detect facial expressions because the size of the images on the screen is too small

Many said that they would sacrifice resolution for larger images of conferees at the other terminal." (Casey-Stahmer and Havron, p. 51)

6.6 Promote interactive situations involving as many participants as possible at one time in order to optimize use of the single channel offered by the medium.

For example:

- propose for satellite sessions *discussions* which involve possible participation of all learners;
- reserve activities in which interactions are not necessary (such as study of documents) and interactions involving only a small group of participants (such as consultation of an expert by a few people) for other times;
- make lectures as short as possible, if there should be any.

6.7 Provide participants with documentation that is as complete as possible; there may be less of it (although this remains to be proven) than in the case of satellite-mediated audio learning, but it is certainly more important than in a face-to-face learning situation.

- Set up a comprehensive "bank" of documents and other material that learners might need.
- See that a sufficient number of copies of such material is available and that there are adequate transmission facilities.
- Provide learners with all such documents and material and undertake to locate and supply on request any written, taped or other form of information required by learners.

6.8 Pay more attention to the transmission of less familiar infor-

mation (Nuttall, p. 18). Less common words require more attention and effort. Included among less common words are the names of persons, places and organizations. There are some techniques that can be used to facilitate perception and retention of such terms;

- repeat the *name* itself, not merely a pronoun used to replace it, or refer to the person or organization somewhat more often than a face-to-face conversation would require, or refer to the term in a written document;
- pronounce the name slowly and clearly (although without breaking the natural flow of communication);
- spell if necessary;
- explain the meaning of signs and abbreviations used;
- be doubly attentive to signs of incomprehension by participants.

6.9 Present numerical information in a clear, written form. Nuttall (p. 18) also states that numerical information presents special difficulties:

"Numbers and their manipulations are learned through vision, and the human auditory mechanism is not well constructed to handle most numerical concepts."

There will be a picture of each learning centre in every other centre, but in view of the restrictions on the transfer of visual information, some measures should be adopted to ensure adequate communication:

- try to obtain written documentation on all numerical information considered important by the participants;
- where the above is not possible, present the information slowly and clearly, for comprehension if need be;
- repeat the information, using the same or a different presentation;
- be attentive for signs of incomprehension by participants.

7. CONCLUSION

It seems that it is possible to establish a *democratic, adult-learner-centered* type of education, through an *audio-video, multiple-group*, interactive communications system. However, such an undertaking would demand

that both the learners and the educator make considerable changes in their customary behaviour in face-to-face learning situations in order to allow for the special features of the medium. There must be a complete rethinking of the total learning experience, not only to adapt the behaviour of the participants to the effects of the system, but also to distribute the learning-related tasks and responsibilities according to the characteristics of the system. The latter is the role which the theoretical learning model referred to at the beginning is designed to fulfill; this paper has attempted to describe some of the features of that model.

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REVIEWS

by Guy Leger

RUTH STOUT'S GARDEN

Ruth Stout has been nicknamed America's Queen of Mulch. The film ably demonstrates her gardening methods (use a mulch of hay instead of cultivating) and has a big bonus of showing us the personality of Ruth Stout.

Whenever a 92 year old person has had a rich life and made an important contribution to society, it should make a good film, and this film will not disappoint you.

The film maker has captured, through some of her anecdotes, the spirit and personality of this lady.

Recommended for Public Library programs and school boards with programs in personality development.

Distributed in Canada by International Tele-Film Enterprises, 47 Densley Avenue, Toronto, Ontario M6M 2P5.

TARA'S MULCH GARDEN

This National Film Board production lacks the personality or sparkle of "Ruth Stout's Garden". All of the ideas are taken from Ruth Stout's book on mulch gardening, but this film presents the information in a very didactic and contrived format. You would think that a film dealing with the subject of organic and mulch gardening would have a more natural flavour. All this aside, it would be useful to those interested in the subject and should get good play through public libraries for horticultural societies.

Available from National Film Board of Canada.

B.C.S.L.A. REVIEWS

Angela Thacker, Past President of the British Columbia School Library, wrote us an Association letter after the first column, which listed the various other sources of reviews, and brought to our attention the publication, B.C.S.L.A. Reviews.

This periodical concentrates on those book and non-book materials that are

about British Columbia, are written by a B.C. author, feature a B.C. artist or have been produced in B.C. This publication is free to B.C.S.L.A. members. We would find it useful to know more about what is being produced by or about other areas of the Country. Perhaps we could use "Media Message" as such a clearing house, particularly on non-book materials. If you know of other Canadian publications which provide reviews, please send them along to the Editor of Media Message.

B.C.S.L.A. Reviews is published by the British Columbia School Library Association. For further details, contact Mel Rainey, B.C.S.L.A. Membership Chairperson, 207 - 5775 Toronto Road, Vancouver, B.C. V6T 1X4.

THAT'S MY NAME — DON'T WEAR IT OUT

Marlin Motion Pictures introduced the *Searching For Values* series (produced by Learning Corporation of America) about four years ago and it was an instant success. A new series, directed towards a younger (12 — 14 years) audience has been materializing over the past year. *That's My Name — Don't Wear It Out* is one of the latest of this series titled, "Learning To Be Human", also from Learning Corporation of America (LCA). Where the "Searching For Values" series was edited from major motion pictures, this new series has picked up its productions from a variety of sources and, therefore, each production is unique but still fits the theme.

That's My Name — Don't Wear It Out is co-produced by LCA, The Ontario Educational Communication Authority, and B.B.C. and was filmed in Toronto. It is the story of a gruff, tough, grocery delivery boy growing up on the streets who befriends a sheltered hearing-impaired child. This relationship develops unevenly because the delivery boy (Nick) feels he needs no one, let alone a whinnying, demanding young boy who he has trouble understanding. When the hearing-impaired boy (Jimmy) disappears, his mother is frantic and

almost accuses *Nick* of kidnapping when he returns *Jimmy* from a brief exploratory trip of the neighbourhood, where *Nick* showed *Jimmy* his secret hiding place in a construction supply yard. Later *Nick* is injured in a fall in this yard and *Jimmy* frantically tries to communicate this to a variety of people in the community. As in many stories, the end turns out well and they live happily ever after.

Others in this series are also worth looking at:

It Must Be Love 'Cause I Feel So Dumb — A teenagers first attempts at trying to win a girl's affection.

Shopping Bag Lady — A young teenage girl realizes that she should treat an old lady with kindness because she will someday be old too.

Luke Was There — A fatherless boy has to live in a group home and feels he again has been abandoned by a father image when his social worker/friend has to leave.

The Boy Who Loved Deer — His own and his friend's vandalism comes back to haunt him when it results in the poisoning of some deer he has been taking care of.

Skating Rink — A stutterer learns to overcome his shyness and relate to others with the patience and understanding of a skating instructor.

Angel & Big Joe — The son of a migrant farm worker is faced with the decision of abandoning his mother in a time of need, or satisfying his own in having a stable family life.

Suitable for Intermediate (Grade 7 & 8) Guidance and Family Life programs. Some would also be useful for Public Library programs.

All produced by Learning Corporation of America and distributed in Canada by Marlin Motion Pictures, 47 Lakeshore Rd. E., Mississauga, Ontario L5G 1C9.

FILM NEWS

The thirtieth anniversary issue of *Film News (FN)* just came in and features

an excellent section on the Ottawa 76/ Animated Film Festival. Actually the issue goes even deeper than that and describes Canada's contribution to film by the National Film Board. This reviewing journal provides a great deal of background information on what is currently being produced. The review-

ers of films are all well chosen so that the reliability of the reviews is high.

FN also publishes a useful reference book called, *Film News Omnibus*, which is a collection of film reviews over the past twenty-five years. Because this is a selected list, it is more valuable than just a listing of all films available.

Film News and *Film News Omnibus* are available from Film News Company, 250 West 57th Street, Suite 2202, New York 10019. Canadian Subscription rates, \$7.00 per year for FN. *Film News Omnibus* Volume 1 is available for \$10.50 plus postage.

FEEDFORWARD

by Wayne Blair

This column summarizes recent developments and/or materials in the educational media and technology area that have recently come to the writer's attention. Readers are invited to submit items to the writer at Rm. 1200, 615 MacLeod Trail, S.E., Calgary, Alberta, T2G 4T8.

MAKING TELEVISION EDUCATIONAL

The Ontario Secondary School Teachers' Federation and the Ontario Educational Communications Authority have published an excellent booklet on how to use educational television. The publication, *Making Television Educational*, provides a wealth of utilization ideas through concise theory sections, case studies, and references to supplementary materials. Although most of the examples of television programs are resources available in Ontario, this is not a serious limitation. Copies can be obtained for \$3.00 per copy from the Ontario Secondary School Teachers' Federation, 60 Mobile Drive, Toronto, Ontario M4A 2P3.

NEW COPYRIGHT LAW FOR CANADA

The Federal Government has released a discussion paper on copyright law in Canada. This document is of particular interest in view of copyright law changes that have recently occurred in the United States. I have been told that the proposed changes in Canadian copyright law are very different from those changes made in the United States. More details will follow as they become available.

ALBERTA DECENTRALIZES 16MM FILM

In 1974 the Alberta Department of Education launched the first stage of a six-year 16mm film decentralization project. A pilot project was established in 1975 in the Grande Prairie and surrounding area. Based on the success of this pilot project, additional 16mm film libraries were established; Calgary and surrounding area in 1976 and Lethbridge and surrounding area in 1977. Over the next four years, four additional 16mm film libraries will be established.

Each library receives a \$100,000.00 establishment grant and a continuing matching per capita grant. In addition, part of the provincial 16mm film library is deposited in each of the new decentralized 16mm film libraries.

For additional details, write to: Mr. Martin Adamson, Audiovisual Services Branch, Alberta Department of Education, 10105 - 109 Street, Edmonton, Alberta T5J 2V2.

CALGARY MEDIA COUNCIL REACTIVATED

Since the 1975 AMTEC Conference in Calgary, the hosting agency has been very inactive. The Council met in February, 1977 for the first time since the conference. Plans are underway for an active year and 50 members have been signed up. The Council membership is predominantly drawn from media management, consultation and instruction and from a wide variety of institutions. For further details contact, Mr. Dick Van De Geer, Media Services, Calgary Board of Education, 3610 - 9th Street, S.E., Calgary, Alberta T2G 3C5.

DEVELOPING 16MM FILM TEACHING UNITS

The Provincial Educational Media Centre in British Columbia has developed 16mm film teaching units in the areas of Advertising, Nutrition, and Consumer Credit. A 16mm film teaching unit is a collection of commercially available 16mm films that have been specifically selected to teach a specific topic. In addition a guide has been produced to accompany each group of films. The guides are available from Wayne Groutage, Provincial Educational Media Center, 4455 Juneau Street, Burnaby, British Columbia V5C 4C4.

LIBRARY RESEARCH NEWSLETTER

An informative newsletter is available from the Centre for Research in Librarianship, University of Toronto. The Centre was established in 1974 and is involved in a number of projects such as, a survey of public library needs in Canada, a study of children's services in the Regina Public Library, the development of a standard catalogue of Canadian materials. Progress on these projects and others is reported in the newsletter. The newsletter is available free from: the Centre for Research in Librarianship, Faculty of Library Science, University of Toronto, 140 St. George Street, Toronto, Ontario M5S 1A1.

CANADA COUNCIL RESCUES "CANADIAN MATERIALS"

Canadian Materials, a review journal for Canadian schools and libraries pub-

lished by the Canadian Library Association, was slated to be cancelled at the end of this year unless funds were found to continue publication. A grant of \$19,875., awarded by the Canada Council has extended the life of the periodical, at least through 1977. The periodical was established with the express purpose of evaluating and critically annotating both print and non-print materials written by Canadian and/or published or produced in Canada and/or on a Canadian subject. Subscriptions are \$5. per year for three issues. For more information write to Canadian Materials, Canadian Library Association, 151 Sparks Street, Ottawa, Ontario K1P 5E3.

MEDIA COOPERATIVE IN B.C.

For the past three years the Media Exchange Cooperative has successfully

operated an open exchange of 16mm film between ten post-secondary institutions in British Columbia. These institutions include two universities, six community colleges, the B.C. Teachers' Federation and the B.C. Institute of Technology.

The Media Exchange Cooperative is a development of several individual 16mm film exchange agreements which were initiated between some colleges and universities in B.C., nearly a decade ago. As the economics of free and rapid exchange of films became more apparent, the information relating to film cataloguing was standardized. A union catalog is now published, listing the 16mm film holding of the ten post-secondary institutions. For additional details, contact Mr. Bruce McLean, Vancouver City College, 675 West Hastings, Vancouver, B.C.

BARRY BROADFOOT RECORDS "PIONEER YEARS"

Based on Barry Broadfoot's third book of oral history, The Alberta Educational Communications Corporation and Broadfoot have produced a series of television interviews about the *Pioneer Years*. *Pioneer Years* describes the West during the period 1895 - 1914.

In addition to broadcasting these television programs, newspaper support materials are distributed on a weekly serial format. These articles serve as support materials. For additional information contact Mr. Ian James, Alberta Educational Communications Corporation, 11010 - 142 Street, Edmonton, Alberta T5N 2R1.

Wayne Blair is a Media and Curriculum Consultant in the Alberta Department of Education.

(See "COMMENT" on Page 2)



From a sketch 1899



From a 35mm slide 1963

The falls at the beginning of the Elora Gorge of the Grand River, Elora, Ontario, 14 miles north of Guelph.

The old mill at the left is now an excellent restaurant. Several of us went there to dine on the last night of AMTEC '77.

L.W.



From a 35mm slide 1977

AMTEC '77 AUDIO CASSETTE TAPES

The following is a list of sessions which were audio-taped at the AMTEC '77 Conference.

The cost is \$4.00 per cassette including the cassette (C-90).

Most sessions require only one cassette.

Contact:

Ms. Nancy Mykitschak
Office of Audio Visual Services
University of Guelph
Guelph, Ontario
N1G 2W1

Key Note Address

"Media Consciousness and the Design of the Future"

Russell L. Ackoff

"Visual Literacy"

Lon Nuell

"Audio Visual Equipment Evaluation"

Brian Boucher

"Developing and Managing Media Centres"

Don Bates and others

"Using Community Resources"

Geoff Potter

"Provincial Media Agencies"

Kees Vanderheyden, Ian James, Larry Young,
Al Fasan

"Libraries and Media: Strange Bedfellows?"

Margaret Beckman, John Parr, Janet Macdonald

"Audio Visual Equipment Planning and Replacement"

Brian Boucher

"Future Roles of Media Professionals"

Jim Miller

"Improving the Effectiveness of Instructional Materials"

Richard Lewis

"Designing the Learning Environment"

Alan C. Green

"The Good, The Bad, and The Ugly"

Sally Landerkin, John Fisher, Jim Miller

"Using Media to Improve the Quality of Instruction"

Michael Orme

"Cable TV in Extension Education"

Mark Waldron

"Media Managers – Special Interest Group"

Don Bates

"Mass Media in Rural Adult Education in Mexico"

J.R.A. Dobson Ingram

"Film-making in the Classroom"

Bob Graham

"Future Directions in Media Research"

Richard E. Clark

"Copyright"

C. Brunet, David McQueen, Bernard Katz,
Les Modolo

"AMTEC Annual Meeting"

G. Fizzard

Resource Services for Canadian Schools

This is a standard handbook for all learning resource centres and libraries. It replaces Standards of Library Service for Canadian Schools published in 1967 and now out of print. Among the major topics covered are: The educational programme and resource services; Nature of the programme and equipment; Facilities; Cooperation and liaison; Funding; Planning, development and evaluation. It has been prepared by the Association for Media and Technology in Education in Canada and the Canadian School Library Association. A definitive reference for school libraries, as well as library system administrators, school principals and others involved in planning resource services.

Dr. Frederic Branscombe and Harry Newsom are co-chairmen of the Joint Standards Committee of the Association for Media and Technology in Education in Canada and the Canadian School Library Association. Frederic Branscombe was formerly coordinator of media services with the North York Board of Education. Harry Newsom works with the Cariboo-Thompson Nicola Library System.

October. 6 x 9. 96 pages. \$4.95 paperback. SBN 07-082620-x

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