# Media
# Message

Association for Media and Technology in Education in Canada
L'association des media et de la technologie en education au Canada

COMMENT • AMTEC REACTION TO THE WHITE PAPER ON COPYRIGHT REVISION • VIDEO AS A MEDIATOR OF HUMAN BEHAVIOR • RESOURCE CENTRE INVENTORY • THE NEXT GENERATION OF RESEARCH ON INSTRUCTIONAL MEDIA • AMTEC 78 • RESOURCE CENTERS IN BRITISH COLUMBIA • MEDIA MANAGERS OF AMTEC • REVIEWS

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# Comment

Dave MacDougall

*"Reluctance on the part of librarians to accept such new items as films, tapes and recordings with the same enthusiasm as books, or vica versa in audio-visual, results primarily from a traditional type of librarianship education that tended to stress that a picture is not worth a thousand words and with audio-visual professional schools that regarded the printed page as an obsolete communication device."*

The narrow visions that received Leslie Janke's well deserved rebuke, are dissolving before the rapid evolution of the media field.

*"By 1972, it was apparent that there was a need for a fresh statement of the role of library service in schools which progressed beyond the traditional dichotomy between print and non-print materials. It was equally clear that this fresh statement had to be the product of a genuine collaboration by all educators working with learning materials, regardless of medium, type or format."* (Resource Services for Canadian Schools)

Media Message is also reflecting this evolution. This issue introduces Don Bates' column, *Media Management* and welcomes the return of Guy Leger's *Reviews.* This issue's articles include the AMTEC submission on copyright revision, counterpoint articles on the school resource centre inventory, suggestions for future directions in media research, an exploration of video for self-consciousness and an examination of district resource centres in British Columbia.

Please be certain to forward your comments and reactions to the editor at his home address.

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# AMTEC Reaction To The White Paper On Copyright Revision

*A submission to the minister of Consumer and Corporate Affairs, compiled from AMTEC members' recommendations and suggestions.*

The Board of Directors of this national organization formed a copyright committee consisting of:
Ian Hose, Assistant Co-ordinator, Audio Visual, East York Board of Education
Gordon Jarrell, Co-ordinator of Learning Resources, Scarborough Board of Education
Jim Miller, Co-ordinator, Instructional Materials, York Board of Education
Lou Wise, Director of Teaching Aids, Toronto Board of Education
The mandate of the committee was to review the working paper *"Copyright in Canada, Proposals for a Revision of the Law".* As a result of surveying our membership the following comments and recommendations are respectfully submitted.

We have singled out those recommendations with which we have, or may have, some difficulty with respect to the educational community. In several cases we are suggesting some modification to the recommendation proposed. In other cases, we are raising questions because we feel that clarification is required.

## Photographs
### page 71
In many cases, photographs are produced by a student as part of a paper, project or assignment. On occasion, these student produced materials are published by an instructor or institution. The material may have been commissioned by the instructor but the student may have paid for the materials himself. We believe that instructors should be required to obtain the students' permission to publish or use their work in other than the purposes specified in the course outline. There are some universities that require this to protect instructors from suits by students.

We have some difficulty with the definition of *"commissioned".* The present Act refers to a photograph *"ordered by some other person and which was made for valuable consideration".* Although not entirely clear, the term *"valuable consideration"* does seem to put a slightly more specific light on the subject than *"commissioned"* used by itself in the new proposals. One could construe, using the former phrase, that a work commissioned by an instructor would not be valuable consideration and thus copyright would rest with the student if that student owned the material used. This assumes

that a grade is not a valuable consideration. The second problem hinges on the new recommendation's failure to make it clear that the principle involved in commissioning a work supersedes the ownership of the materials used in making a photograph. This is clear in the present act.

Recommendation 3. presents problems to teachers wishing to copy photographs. It is unclear whether permission should be sought from the author or from the publisher.

## Cinematographic Works
### pages 78 - 81
The term *"maker"* is not defined with sufficient clarity. The definition as written could be the director, the producer (person) or the producer (company). In many cases, the costs of production are borne by a production company and it would seem the rights would be vested in that company. Yet it is unlikely that someone (producer or director) working for the funding company has been *"the person by whom the arrangements necessary to make the film were undertaken".*

Date of *"making"* is not specific enough since production may extend over several years. Date of completion might be easier to identify. It might be argued

that release date would also be more exact, but if this date is used, it can leave a period of time not covered between completion and release.

## Sound Recordings
**pages 83 - 89**
We agree in principle with the seven recommendations listed on page 89. However, we believe that the right to broadcast be given as an exclusive right, and that in the current regulations this protection is granted only on the contingencies that mechanisms can be established to exercise the rights. It is recognized that the right to reproduce and the right to publish are substantially different from the right to broadcast, in that the former involves reproduction in material form, whereas broadcasting is a transmission of radio signals.

We do not support the recommendation of the exclusive right to perform in public, since we do not accept the concept that this is the only way in which a producer of recorder materials can get payment related to the use of his work in the market. Remuneration will come through increased sales from the record maker and will be on the basis of royalty payment.

## Broadcasting
**pages 106 - 107**
It is our view that school boards or individual teachers should be able to tape and replay within a period of two weeks both radio and television broadcasts. Since many of the programmes of interest to teachers are produced using public funds (e.g. National Film Board, C.B.C., Radio Quebec, Sask-Media, Access, O.E.C.A.) the taxpayer should not be required to pay again through his school board for this type of usage.

Given the fact that the home video tape recorder is on sale, and that countless cassette tape recorders have been sold, the public will break copyright and tape both television and radio broadcasts at home, no matter what regulations are passed. Consideration should be given to following the United Kingdom in protecting broadcasts but permitting exceptions for both school use and private purposes.

## Cablecasting Rights
**pages 130 - 143**
In urban areas many schools are connected to the local cable system, which carries the *"education channel"*. The appropriate provincial authority has the responsibility for copyright and performance rights, and this authority should negotiate with cable companies rather that have a Copyright Tribunal fix fees.

## Fair Dealing
**pages 147 - 149**
We are in agreement with the proposals ·with respect to the retention in the new act of present provisions for fair dealing. However, we feel that the definition of *"fair dealing"* is far too vague, and that educators have little idea as to when the defence of fair dealing would be available to them and when not. It is the opinion of the Association that definite parameters should be established for excerpting from works for the purpose of study, research, criticism, review etc. The delimitations of Section 107 of the United States Copyright Revision Bill, as set forth in House Report 94-1476, appear to us to provide an equitable basis for universities, colleges, elementary and secondary schools, libraries, and other *"not for profit"* educational institutions, to access materials for the purposes stated above.

To reiterate, it is our view that any new copyright law must deal in specific terms with the problems of infringement vis a vis educational institutions. Respect for the law can only develop when those to whom the law applies understand it clearly, think it to be equitable, and subscribe to it willingly.

## Public Performances by Gramaphones and Radio Receiving Sets
**pages 156 - 160**
Section 50(7) of the present act should be replaced by a specific exemption for performances by means of a radio, record player, tape recorder, and television receiver in a school.

## Photo-Copying
**pages 162 - 165**
The area of photocopying is of major concern to our members. We endorse the formation of collectives, under the supervision of a government tribunal, to protect authors' and publishers' interests. In addition we believe that if this collective is formed that the control and regulation will be necessary to ensure equity between owners and users and will protect a principle of education that says that teachers and students should have access to as wide a range of materials as possible in order to ensure the highest quality of education. If provisions for these principles can be provided and guaranteed without providing specific provisions for photocopying, then we would endorse recommendation No. 1. If the parameters of fair dealing can be clearly delineated, then these should remove many of the current problems concerning photocopying.

## Exemptions Applicable to Education
**pages 171 - 173**
We are unclear as to the exact distinction between the recommendation on page 156 and the recommendation on page 173, since it would appear that a performance may be lawful under one recommendation and constitute an infringement under the other. The definition of *"audience"* on page 173 is unnecessarily restrictive. It should be noted that many institutions use teacher aides, technicians and volunteers to assist with the educational programme. In addition, teachers often visit other schools on professional activity days. Today the trend is to greater parent involvement in the school. The audience should not be restricted to teachers and students at a particular school. The addition of the phrase *" ...... or are otherwise directly connected with the activities of the school"* as in the United Kingdom act would seem to overcome this difficulty.

This committee would welcome the opportunity to attend hearings to discuss this submission in greater detail.

# AMTEC '78 REGINA

# Closing the Communications Gap
# June 18 — 21, 1978 at the Regina Inn

# Video As A Mediator of Human Behavior

David H. Jonassen, Ed.D.

*David Jonassen is Assistant Professor with the School of Education of the University of North Carolina.*

What you *"see"* when you look into the mirror is referred to as self-image, a perception that you have formed of yourself. This perception is comprised of an amalgamation of all the encounters and social interactions that you have experienced. Humans, according to Rollo May (1953), develop conscious images of a *"self"* through their relatedness to others, especially during childhood. *"People primarily learn about themselves from other people by so called 'social feedback.' The accuracy and adequacy of that type of feedback is limited by the source's inaccurate memory, inattention, biases, and prejudices"* (Hollander and Moore, 1972, p. 77). Social feedback constitutes the preiminent, pre-technological paradigm for self-concept development. The transition to a techno-society has altered the nature of social interaction, leading perhaps to new social paradigms.

The mass culture of the twentieth century has been marked by a diminution of the sense of self, engendered by a loss of belief in the worth of the person. Mass social and political movements are characterized by LeBon's *"law of mental unity of crowds"* (LeBon, 1895). This passive mental homogeneity (Nietzsche called it slave morality) has been reinforced in the past two decades by the most potent socializing agent in the history of mankind, the TV set. *"Television is rapidly becoming one of the main contributors to the stream of information that makes up the feedback from the world to man"* (Singer, 1966, p. 306). The ultimate mass medium has created a mass conscience, manifested in the technological man, *"homo cyberneticus."*

Is the situation hopeless? Educational television has for twenty years assiduously striven to raise the consciousness level of American youth from the quagmire of commercialism. The miracle medium, when used for primary classroom instruction, has consistently generated *"no significant differences"* when compared to traditional, teacher-based classroom teaching. The stand-up, chalkboard television lecturer of the fifties and sixties has deferred to what George Gordon (1974) refers to as a *"looney bin of insipid puppeteers, animators, and people who make things out of Styrofoam."* Non-commercial applications of video have historically contributed little to education. The isolated successes either disappear for lack of funding or sell out to commercial supporters to perpetuate their existence. There is light at the end of the cathode ray tube, though.

The potential of television is· being re-evaluated. Important advances in educational, industrial, and medical applications of television are being realized. Media users and teachers are finally learning to use television as an extension of man to his environment and to others, as McLuhan (1963) suggested. Using television as a means of interaction is not a unique idea. Our enhanced understanding of the medium, free of the retrospective preoccupation with the message, will allow us to apply it to helping people regain the confidence or self-image that has been co-opted by commercialism.

Video possesses unparalled potential as a mediator of human behavior, *"The individual has gained access to the most convenient and most objective self-image confrontation ever available. Man can immediately and repeatedly see himself as others view him* (Danet, 1968, p. 245). Such videotape feedback provides the individual with the opportunity to interact with the taped image of self or others. Stoller (1968) describes the TV screen as a highly selective instrument (especially during feedback) rather than an inclusive instrument. The screen is a small frame where a particular image is made to stand out from its background. The visual image that is viewed on the screen is psychologically different from the image that an individual encounters in real life. When framed by a screen, behavior looms as more important and impelling than it would in a normal interaction (Stoller, 1968). The reduction of reality to a nineteen inch screen focuses and concentrates attention on specific behavior or aspects of the self. It makes the unimportant salient. The isolation of the self-image on the screen comes closer to reifying the self construct than any other feedback mode.

Self-confrontation entails a comparison process, not between the self and others, rather between experienced behavior (self-perception) and observed performance (video feedback) (Fuller and Manning, 1973). Self-confrontation is a process of self-observation, an experiencing of the self through an interaction with the self. Bahnson (1969) described the experiential self as comprised of the actual experiences related to the self, including those related to sensory input and those related to perceived relationships to others. Self-confrontation provides a mediating link between these relationships, which generates feedback from the self. Televisual mediation provides the opportunity for each individual to observe their own presentation of self as if in the place of another person, the responder (Taylor, Haley, and Mills, 1971). In self-confrontation, the subject assumes the role of observer and interacts with and alters the image of himself. The formation of a feedback loop, with the individual receiving feedback from the self through interaction with a televisually mediated image of the self, constitutes the theoretical framework for self-controntation. *"Self-confrontation by videotape feedback is the purest, most complete, and most immediate source of behavioral feedback that can now be provided"* (Hollander and Moore, 1973, p. 77).

It has been the exploitation of this source of objective feedback in the fields of counselling and therapy that has opened new channels to the human psyche (research comprehensively reviewed by Fuller and Manning, 1973). The author's research experience has generated experiences of personal enlightenment in subjects confronting their own images. A more intimate personal knowledge results from such an experience. Television, especially small format videotape, is freeing itself from the constrictive instructional television paradigm that has controlled its development. Utilizing the potential of the medium as a feedback mechanism mediating the interaction between individuals or between an individual and their self-concept will contribute to a better understanding of the medium as well as suggesting more appropriate applications.

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# Resource Centre Inventory
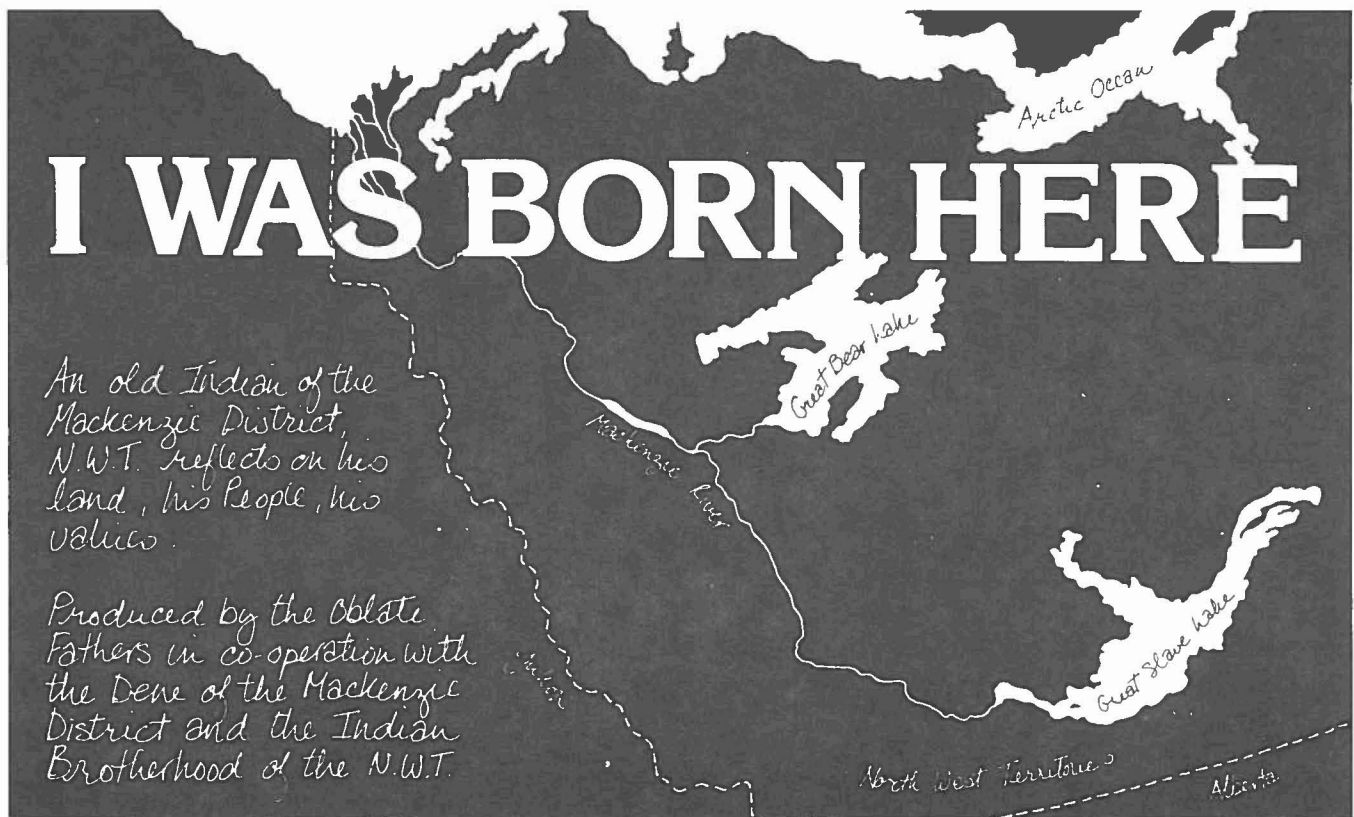
## Continuous Inventory

**Dave Allen**
**Media Consultant**
**Waterloo Board of Education**



The library inventory has long been something that most teacher / librarians would rather avoid if they had a choice. The closing of the school resource centre for a week or more, the escape from some of the other year-end duties of the school, or the informal relationships that develop among a few 'enthusiastic' student assistants, do little to offset the monotony of endless hours spent crouched between the book stacks on hot June afternoons. And when it is all done for another year, there is often the doubt of the worth of it all anyway. Most of the materials turn up. A few that have been reported missing have been re-ordered, if possible, during the year. Others are, forever, just a memory. Worst of all, even though the shelf-list is once again accurate, there is no time left to weed the subject, author and title catalogs.

We should ask ourselves the basic question: *"What is the purpose of a library inventory?"* If this can be stated clearly and understood, then maybe there are ways to make the inventory procedures less onerous.

The library user must have at his disposal some kind of accurate listing of the materials the library holds. In practice this means an accurate card catalog with subject, author and title sections. Good research cannot take place if there is no such catalog. It is important that all items held by the library be contained in this catalog. It is

just as important that items no longer held not be listed in the catalog. The inventory, then, is for the benefit of the library user, because it is *the inventory* which *allows the catalog to be kept up-to-date*.

An inventory is not required if a simple materials count is desired at a given time each year. For loss statistics, whether temporary or long term, one needs to know the number of items lost. Library helpers can be assigned specific sections of materials to count. This can be done quickly. Some librarians use this system of having an individual *"responsible"* for a section for other purposes: shelving, shelf-reading, listing, etc.

A complete inventory of all sections is not required if there is good reason to believe that some subject areas will not be used much for some time to come. On the other hand, because of the heavy demands upon other specific subject sections, it might be advantageous to inventory them two or more times per term! Thus, we might do well to develop an inventory cycle based on user need rather than a sometimes impossible annual inventory of everything. The job will not be so enormous if it is done in areas where there is greatest turnover and greatest need for accurate catalogue records.

Many librarians are very aware of current and upcoming topics of study. They frequently prepare lists of materials for teachers and students on topics assigned. Reserve collections are sometimes pulled for short-term use. These activities require a knowledge of what is on the shelves before the assignment is made. This knowledge requires an accurate inventory of the appropriate sections of the library. What better time to do an inventory in the subject areas coming up in the curriculum.

Periodically, inventories of small blocks of 'recreational' materials should be done as well.

Records must be kept which indicate when each section has been inventoried, Eventually the whole collection will be covered, and it will have been productive work (even if still a little boring!)

## A Year End Inventory

**Dave MacDougall**
**Editor**
**Media Message**



If the teacher-librarian is to be available to assist students throughout the day and if resources are to be available for resource-based learning, the inventory function is best performed at school year's end.

The year end inventory has been thrown into disrepute by a minority of school librarians who have used it as an excuse for closing their resource centres early in June. In reaction, the continuous inventory gained popularity at the expense of the year end inventory.

This is, however, a case of attention being focused upon the symptom rather than upon the disease, since a year end inventory need not take weeks; it can be completed within a three day period.

In defence of the year end inventory, I would suggest that it is far more practical and effective than the continuous inventory.

Loss statistics will moderate since:
- project completion eliminates the motivation for temporary theft
- locker and classroom cleanups expose lost materials
- conscientious parents, aware that the school year is ending, will force the return of school books found in the home

The inventory will function more efficiently since:
- teachers, tired at the end of the school year, are more agreeable to release students for work in the

resource centre

- students are eager to escape the doldrums of the final week of school
- the resource centre teacher is free from his / her prime responsibility of assisting students with project assignments and therefore is able to concentrate upon this task
- students are able to perform the preliminary task of carefully ordering the shelves without conflicting with user needs

Since these conditions do not apply during the school year, the continuous inventory offers *inefficiency, inflated loss statistics and interference with student needs.*

How can a rapid but effective inventory be conducted at the end of the school year?

With the end of year inventory in mind, I began the school year by organizing the fifty resource centre assistants so that the ten assistants that worked each day (one per class period) were each responsible for maintaining a selected 10% of the collection. By the end of the year, the five students were quite familiar with the organization of that one small area of the shelving.

The actual three day inventory began with these students insuring that all the books were in exact numerical order. Then they began to match cards against books, turning books horizontal if the cards could not be located and placing a paper clip on the shelf list cards if the books could not be located. This inventory system was repeated until all books present were matched with cards and a search for missing books had been conducted three times.

# The Next Generation of Research On Instructional Media

**Richard E. Clark**



*Dr. Clark received his Doctor of Education degree from Indiana University in 1970, was an associate professor in communication studies at California State University and then at Stanford University, aside from his teaching and research duties, was director of the ERIC Clearinghouse on information resources. For the last two years he has been chairman of the Area of Instructional Technology at Syracuse University. He has been instrumental in moving the Eric Clearinghouse on information resources from Stanford to Syracuse. He is presently associate director of the Eric Clearinghouse at Syracuse and is an associate professor of Instructional Technology.*

Since I'm going to express a number of opinions in this talk it seems only fair that I let you know what my biases are before I begin. Many of my prejudices about media research were formed when I was working as a media producer. At various times over a period of years I worked in television (commercial and instructional), film, radio and with a very sophisticated video-disc-computerized-random-access system. At that time I didn't think that my colleagues and I had access to a sufficient amount of solid knowledge about effective production techniques for communicating or teaching. I felt that we communicated very well with each other ..... as a matter of fact that we more or less ignored our primary audience (mainly students) in favor of impressing each other through the use of sophisticated camera and editing styles that we modeled from commercial productions or from the few artists that were working in electronic media. I left media production for a doctoral program in educational technology research that was heavily oriented towards educational psychology. That was 10 years ago and I welcome the opportunity to give you my impressions of what I think is going to go on in future media research that is of use to those interested in media production, and to attempt to describe the present state-of-the-art.

I want to begin by giving you a number of assumptions that seem to underlie a concern with media research.

The first assumption is that media research is a very valuable commodity and that if it isn't adequate you simply are not going to do a very good instructional job in production. Furthermore, I think that there's general agreement among those who do media research that despite the fact that there seems to have been a lot of studies, we still don't know much of consequence about how people learn from media. The problem in the past has been primarily with the quality of the research that has been conducted rather than the quantity. Much of it is simply poorly conceived and conducted and therefore the results are equivocal. In my estimation, we're not at the point yet where we have significant guidance from research on how to make intelligent selections from among the potpourri of techniques available to the producer for the production of mediated instruction that improves learning. It's time that this entire area of media research were focused more directly on instruction and learning and that researchers begin to discuss promising directions for their studies. Before we do that however, we need to agree on at least four necessary conditions for rebeginning or renewing media research. After I describe those conditions I'll go on to describe seven current directions that seem to me to be very profitable for systematic research on media.

## Necessary Conditions for Systematic Research on Media

Let me begin with what I think is the major assumption behind media research. The engineering concerns in media will not necessarily change their current directions. In other words, those people who are designing media systems will continue as they have been, and primarily produce interactive systems which seems to be the way that most of the engineering people are moving. That is, systems that permit responses, that permit random access to instructional material, that are focused more on individualizing instruction and what you might call groupalizing instruction. In other words, providing instructions for specific target groups or for individuals. Another important part of this condition is that the engineers don't need much help from people either who do research or who do production. They have been the ones over the years who have been the most successful in advancing what they do. We continually upgrade our engineering systems but I'm not so sure that we have been so adept at upgrading our knowledge about how to use machines. It has always struck me (as an amateur historian) that there has never been a major engineering innovation in this media area that has come from some express need in education. The reverse has always happened i.e., that some communication technology has developed and we work very hard to find ways to put it to use in education. That should change. I'd like to see us going to the engineers with specifications for major new media innovations rather than waiting until they do their job. In other words, I am assuming that engineering is going to continue the way it has and that they are going to be as successful as they always have seemed to be.

The next necessary condition concerns the education of researchers. Last year, Dick Snow and I went through those journals that report research in media. We did an analysis of the adequacy of studies that had been published in those journals in the last five years, the designs that were used, the statistics that were employed, and so on. I was really surprised and very depressed by the results. It seems that many of the students who are coming out of doctoral programs in our field are not terribly well trained to do research. Much of the research that gets reported is dissertation research. Some systematic long-term kind of research gets reported but on the whole, the studies that are published are poorly done and I have a suspicion that this results from a lack of really challenging graduate programs in research. So a necessary condition for

improved research is improvements in the graduate programs that train people to do it.

Another necessary condition, it seems to me, is a need for an increase in funding. We spend a half a billion dollars each year in the States on advertising to children, but in the last five years we have spent about a million and a half on research. A half a billion on advertising alone to children and maybe a million and a half on research, on all uses of media in education! Most of that money has come from foundations, very little of it from federal governments.

We also have a vital need for policy guidance for people that are doing research. State governments, local governments, institutions of one kind or another, even professions, don't seem to be terribly willing to tell people who are doing research what kind of information they need. One might suspect from this that they feel that they don't need a great deal of information but I have a feeling if they think about it and they're honest, they realize that they do. If you are producing media programs or if you're making selections for people among the variety of options that are open to you, you certainly come to the conclusion that you are making those decisions with very little knowledge of their consequences. We also need additional information about how policy decisions get made and how instructional decisions get made by people who do research. For example, most of us have been trained as researchers to do research that results in theories; grand theories in the tradition of the hard sciences. We are taught to be very conservative in the way that we make decisions about the results of our research projects. We are taught always to reject the findings in research if the possibility exists that it may be false, but in education it may be that the greatest error that we could commit is to reject a finding when the possibility exists that it might be true. We don't think about that when we train people to do research. So there are at least those two aspects on the policy question. On the one hand more guidance on what kinds of questions need to be asked and on the other hand more education for researchers on the basis of how they judge the information that they acquired in their research.

The final condition is that we all need to spend a whole lot more time on what has been called diffusion and dissemination of research results. In other words, people in research generally have the feeling that when they finish their study they publish it and they're

finished with it. Now they can forget about it and go onto the next thing. The fact that very few people, except our own colleagues, read those journals doesn't seem to bother us a whole lot. Producers talking to producers and researchers to researchers? It's changing slowly, but it hasn't come to the point yet where people who are in research see that they are not finished with what they do until they at least can communicate, understandably, to someone who is in the position to make an intelligent judgment about the worthwhileness of that finding. I don't know that they can influence production decisions beyond hoping to communicate knowledgeably about their findings. In order to do that, they have to acknowledge a responsibility beyond their traditional roles.

Now, with those things out of the way let me turn to what I think may be some promising future directions for research in media.

I'm first going to talk about seven things that are going on right now that might pay off a whole lot more if we put more emphasis on them.

First of all there is a considerable amount of research in an area that has been called social or observational learning. I've always found it curious that people know very easily how to be millionaires when they had been paupers before. It does seem that social learning is a common effect of media. People like Bandura, Walters, MacDonald and others, have been doing a considerable amount of research on how you provide models of behaviour, via media. Recently, there has been a new element to this research that I find particularily exciting. That is the possibility that a child or an adult might learn to model an inanimate presentation. We all know that we model each other, but is it also possible for us to model strategies for solving problems? I'll discuss some of these new modelling studies a little later, but I would just like to place it in your mind at the moment that it is not only possible to model human beings, it is also possible to model strategies. Some of this observational learning has had to do with the role of media in teaching people violence and aggression. I think we're at the end of that research now. There are very few new questions to ask in that area. It appears that television for example, does result in violent learning by some people. The most crucial thing here is the possibility that through media we might teach students to model cognitive strategies for solving problems. Sesame Street has tried this approach with some success. It deserves further study.

The second area that deserves continued attention is the role of novelty in media. It is the Canadian psychologist Berlyne that has been most productive in this area. He deals with variables that you might variously label novelty, ambiguity, uncertainty and the role of those things in enhancing attention, directing thinking towards certain ends, energizing people to consider a problem, to seek information and so on. It does seem from Berlyne's work that media presentation of one kind or another can in fact energize people to search out and find information about problems that intrigue them. He notices, for example, that the biological theory of homeostatis, which says that all organisms seek some kind of steady state, is inaccurate. People in fact seek out novelty; they seek out uncertainty and ambiguity and they seek it out both intellectually and perceptually.

Knowledge about the things that energize our intellect can often be built into media production techniques.

The third area is the study of so-called instructional supports. Researchers such as Sig Tobias at City College in New York are attempting to find instructional techniques that will compensate for the learning difficulties that all students experience at one time or another. Those concerned with this area are asking: What effect does the organization or sequencing of instructional material have on learning? How do we help students understand exactly what is expected of them in a specific bit of instruction? Under what conditions should instruction be visually rich or sparse? How much of the instructional strategies that are needed to solve instructional problems should be given to students? How do we help students recall what they have learned? Why is it that students who are bright often fail to learn?

The fourth area is concerned with techniques that increase the chance that students will be able to transfer what they learn from mediated programs to problem situations in school or in their daily lives. It deals with questions such as: How do you insure that students will carry with them what they have learned and use it beyond the little test that you might give them when they finish with the program? Even though they may do very well on an immediate post-test if you talk to them three weeks later they may have forgotten a good bit of what they learned.

Another promising area of research concerns the "engaging" features of media. Robert Hess at Stanford is conducting research in this area. He found that minority students in the

United States are much more engaged by computer assisted instruction than white middle class students. When he looked carefully into why that was the case, he found out that the minority students thought that the computer was a whole lot more fair than teachers. In other words, computers are not prejudiced. They set up hard rules and they always pay off when they say they're going to pay off. The race or nationality of the child that sits in front of that console is not important to the computer. So, the children were working very hard in mathematics programs that were presented by CAI, not because of the program itself, but more to do with simply this engaging feature of this particular medium. There is also a concern, by the way, with those visual and aural features of media that engage and hold our attention.

Number six is an area that's been around for a long time. I don't know who will eventually bring some kind of great insight to it. I think Marshall McLuhan was responsible for starting it, more than anybody else. It has to do with the linguistic features of media i.e., the relationship between the structure of a medium and the development of cognition, literacy, concepts and so on. Although there are a lot of people concerned with this area, I want to point out that some of the best work is being conducted by David Olson of the Ontario Institute for Studies in Education. Recently, Olson's research has had to do with talking to fairly young children, I think two to three years old, trying to find out how they label and categorize visual experiences. He finds some very interesting things. He's

asked some questions that are quite different from the questions that many of the perception researchers asked children of the same age. He is also working with children who have experience with different kinds of mediation, and those who haven't and wondering what the difference in perception is between those two groups.

The last area (and there are probably many more) is the role of visual imagery in recall and learning on what has been called "mnemonic strategies". Allan Pavio and Gordon Bower are people that have been working in this area. It is probably the oldest area in psychological research and yet it is still one that has potential for payoff today. Aristotle and the Greeks were intrigued with them. We still continue to find out things that are useful about mnemonics and about memory devices that can improve the way that we design mediated instruction.

### New Directions for Media Research

Now let me make a transition and discuss two new directions. I have to apologize and tell you that these are primarily things in research design, not necessarily in the content of research. The apology is there, I guess, because it seems almost a tinkering or engineering solution to a philosophical problem, but I have a sense that this might be where we get one of the largest benefits in media research. First of all, no one seems terribly happy with the theories that are available in learning. Very few theories are complete enough to help us form questions. So, it seems to me that a solution to that is to fall back now on what are called informal research

designs where we do seat-of-the-pants research guided by policy decisions and a willingness, as researchers, to walk into a place where children or adults are learning from media and open to our eyes and ask ourselves, What's going on here? Then attempt over a period of systematic observations to generate hypotheses. There are a great number of people around right now who are trying to sell different kinds of informal research designs. We have people in participant observation who are attempting to attract disciples. We have people in an area called intensive designs, (the reconstructed Skinnerians from yesteryear) who are talking about looking at what single individuals do. We have people who are philosophers who say, *"struggle with what people produce"* and generate hypotheses from the intellectual production of a society, and we have historians asking for similar dealings with records. There's no reason to make a choice between these approaches because they all have advantages. They all recommend that we *"go and get our feet wet"*. I'm happy to say that the doctoral students that are coming up are no longer only interested in doing research in the psychological laboratory. They are much more interested in going out to school or into communities and sitting around watching and keeping their mouths shut. Now, we have to be careful with that kind of research because it's not brand new, and in the past it has been an excuse for very poor scholarship. It is the most difficult kind of research that can be done. It appears, at first blush to be terribly exciting and motivating, but it's gruelling. I've done it. You can spend months and not have anything happen. Whereas the lovely thing about laboratory research is that zip you're in, and zip you're out, and you've got the publication and you're on your way to stardom and full professorships. This kind of research is often longitudinal in nature. It requires a fairly broad knowledge of interdisciplinary social sciences and it demands a great deal of compulsion. I think that it was Einstein that said that creativity was ninety percent compulsion and ten percent talent. There is some truth to that notion.

The second area is also a research design technique, but it is also a philosophical notion. It's called by various names i.e., aptitude-treatment interaction research and trait-treatment interaction research. People who are on the firing line or in the trenches in education, call it individualized instruction. It makes the assumption that all learning is the result of an interaction between characteristics of human beings on the one hand and characteris-

tics of their environment on the other. It's such a simple notion that it seems like everybody should be able to accept it, except that we rarely make that assumption when we design instruction for people. We're always looking for the best way to teach people, the superior technique, the best facilities, the best curriculum, the best mediated device and so on and so forth, when it's a ridiculous search. You have to ask the question, *"the best for whom?"*, and make the assumption that everything that we have may work with some people and not with others. As a teacher, I'm always intrigued that no matter how many people you teach some will learn and some won't. It's almost inevitable. It's so seldom that I've ever seen an instance where everyone who has been taught a thing has learned it exactly the same way. Even in the mastery learning approach there is a difference in learning time and you don't know exactly what's going on in the increased time that it takes some students to learn. This approach implies that in doing research you need to ask: What are those crucial characteristics of human beings that interact with crucial characteristics in the design of mediated instruction? Then you get into a whole new ball game because most mediated instruction techniques have been developed with the assumption that the best way to teach all students can be found and with the assumption that they will work equally well with all people.

The aptitude-treatment interaction approach means that we have to change current ideas about individualizing. Individualized instruction often means that there are five different kids in the same room working on different things. It doesn't always mean that we have made the assignment to some individualized program on the basis of something that we know about this child other than where he / she is in reading. The child's reading level may not be the most important thing at all. It may be important whether you're dealing with a spatial or a verbal child. It may be terribly important how much general ability that child has. I'll give you some examples of what has happened when people have begun to make this assumption in research. Gavriel Salomon of the Hebrew University found it intriguing that many children from Asian countries couldn't read maps until much later than children from European countries. It's not a new finding. A number of people have noticed it over the years. Salomon took the kids that could not read maps at a very early age and successfully taught them to read maps. He did it the following way. He asked himself, what is it about these

children that keeps them from reading maps. The answer he found after a long struggle was, that the kids were what he called ego-centred perceivers. They tended to see the whole physical world as revolving around themselves. Their perceptual experiences are the same. They find it impossible to remove themselves from a situation and to view it objectively and visually. Salomon taught kids to do that. How did he do it? Well, he asked, how was it possible to simulate the way that a human being must learn to view spatial experiences objectively? What he finally ended up with was a movie. A number of them as a matter of fact. A film that showed the side of a mountain and a child marched up in animation, to stand against the side of the mountain. A line is drawn at the child's head; a height line (all kids are used to being measured). Then the child in animation climbed up until a number of height lines were made on this mountain. Then a helicopter came down, picked the child up. Then Salomon switched to a subjective camera. The helicopter went up onto the top of the mountain with the child, looking down on it. Then slowly he flattens the mountain. The scene is there, as contour lines on a map. That happened with a number of different features and a number of different perspectives for the child until very shortly after that they were reading maps. They were also solving other kinds of problems that related to objective views of physical space.

Another example of this technique comes from Art Education. That area hasn't received a lot of attention from people in research. We asked ourselves how it is that kids learn what paintings are about. That seems to be one of the goals that most art teachers have (to teach a child a certain amount of conceptual richness about art, art esthetics and experiences). We found that as we got into the problem that certain children couldn't interpret paintings. For example, when they were shown a painting or some kind of a visual display, they couldn't very easily pick out parts of that visual display. We called it *"attending to cues"*. They could not pick a cue out of a painting or visual display and say that's a wing on an airplane or that's an Iris, a flower, or that's a stone on the ground. They tended to see the thing all at once in a kind of gestalt. Other children were very adept at this and there was a relation between being able to pick out parts of a painting and generating a lot of interpretations of the painting. So we took all these kids and again we asked ourselves, how is it that we simulate for this child who can't notice parts or cues the way that people *might* do it. We

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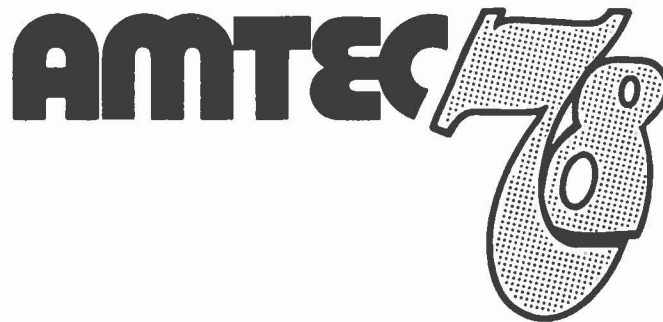
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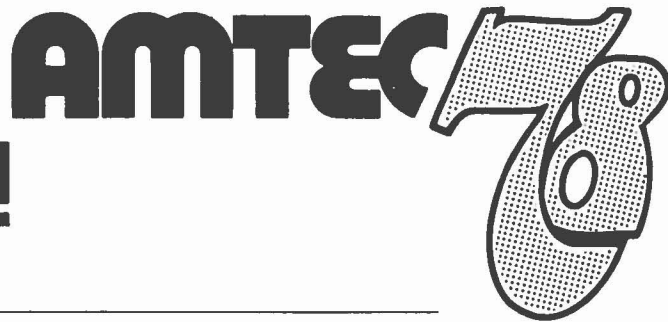
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chose a zoom lens on a film camera. We put that zoom lens in front of a whole series of paintings of different visual displays. We would show the whole painting, zoom into a part and an announcer would say, *"it's an airplane"*. Out again into something else, *"it's a duck"* and so on and so forth. It's a simple treatment, but after a very few times these kids that could not attend to cues were picking up parts of paintings and curiously enough they then began to generate a whole lot of interpretations about the paintings. Now I feel it only fair to tell you that we had some unintended outcomes in those studies.

Some of those children we were using for subjects in these aptitude treatments interaction studies, tend to do worse than they did when we found them, if initially they were good and we tried to make them better. In other words, those children who were initially good at picking out parts of a painting couldn't do it as well anymore after this zooming treatment. What we inferred from that is that we interfered with some idiosync-

ratic strategy that those children had learned.

We found the same thing, by the way, in reading studies. We find that whole word and phonics methods interact with student verbal abilities. There's been this long-standing argument about which of the two methods work better with children? In fact, it's a poor question. The question is better phrased, *"For whom does the whole word method work better and for whom does the phonics method work better?"* When you ask it that way, you find this interaction again. Most important, it was found that those children who have been assigned to the inappropriate way to teach them, are those kids that are discouraged about school. It could be that some portion of what we call the discipline problem in schools, may be due to the fact that those are the kids for whom that particular environment is inappropriate.

There's a series of questions that you have to ask to do this kind of research. First of all, what mediated presentation

will simulate the skill that needs to be acquired by this particular child that can't do something? What language, what cultural background should they have? What general ability do they have to have? How will you insure that they have acquired it and once acquired how will you insure that it transfers to the situation you would like it transferred to? How will you guard against unintended side effects? Those are the series of questions that people into research in that area are going to be asking.

The contribution that those of us who have a professional concern in this area of media and technology can make is to improve the concepts and strategies that education has for dealing with instruction. If we don't do that, I don't think anyone else is going to. What are those crucial functional characteristics of instructional techniques that work? One way that we can ask it, is in this interaction question and that I think, that very general question is going to be the focus of media research in the next few years.

# Resource Centers In British Columbia

Warren B.P. Grabinsky
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During 1976 a survey was made of resource center services in British Columbia. The purpose of the study was to find out what services were being offered by resource centers; were there any services that could be identified as being common to all resource centers in the province? What services did teachers in British Columbia want resource centers to offer to them?

## A Survey of the Literature
In preparation for this study, an extensive survey of the literature was made dating back to 1960. The purpose was to review the literature to determine what services the experts in the field

were suggesting a resource center at the district level should provide to teachers and students of that district.

Based on the literature survey a list of 154 specific services was identified. These services were ones that a resource center had the potential to offer; it was not assumed that every resource center would offer every one of these services.

## Thirteen Service Clusters
The 154 specific services identified were grouped into 13 service clusters. These clusters were labled: a) Staffing; b) The Media Collection; c) The Teachers' Professional Library; d) An Examination Center; e) Television Services; f) Media Production; g) School Library Processing; h) Printing Services; i) Science Kits and Supplies; j) Inservice Activities; k) Awareness Services; l) Delivery Systems; and m) Accessibility of the Resource Center.

## A Survey Instrument
Using the 154 specific services, grouped into 13 service clusters, a question-

naire / opinionnaire survey instrument was developed. (See Appendix A: The Essential Components of a Resource Center Service Program for School Districts in British Columbia.) This survey instrument was sent to the heads of 47 resource centers in school districts in British Columbia and to 292 teachers employed in the public schools of the province. The teachers group was further divided into four sub-groups: a) Classroom Teachers; b) Librarians; c) Administrators at the school level; and d) Administrators at the district level. The Classroom Teachers sub-group was sampled in such a way that teachers represented every grade from K — 12. As well, learning assistance teachers and counsellors were included in this sub-group.

The 292 teachers represented a 1 percent sample of the total public school teaching population of British Columbia as of October, 1976. A random sample technique was used so that teachers representing the entire province were included in the sample — whether or not their district had a resource center.

## Two Types of Response Required

The survey instrument required the subjects to respond in two ways to each specific service that was listed in the survey booklet.

The first type of response was for the subject to indicate, "Yes, this service is provided by the resource center in my district," or "No, this service is not provided by the resource center in my district," or "I do not know if the resource center in my district provides this service."

The second type of response was for the subject to indicate the degree to which he / she agreed or disagreed that each service listed should be provided by a resource center serving him / her. Subjects could express an opinion ranging all the way from strongly agree that the service should be provided to strongly disagree that the service should be provided. There was also an opportunity for the subjects to indicate that they were either undecided — but had thought about the service — or that they held no opinion one way or the other because they had not thought about that service in relation to a resource center service program.

## The Sample Group

The survey instruments were mailed to the 339 subjects on November 8, 1976, with instructions to return the survey booklets to a firm of chartered accountants by November 30. The firm of chartered accountants returned only the survey instruments to the researcher. This procedure assured anonymity of the subjects who responded.

Returns were received from 119 teachers; this represented a 40.8% return from the Teachers Group. Returns were received from the heads of 33 resource centers; this represented a 70.2% return from this group. There was an overall return of 44.8% — or a slightly higher than normal return than is typical of the mail questionnaire survey technique.

Further analysis of the returns revealed that the 33 resource centers in the actual sample served 11,326+ teachers — or more than 40% of the total number of teachers in the public schools of British Columbia. Over 70% of the teacher subjects were elementary school teachers. Over 65% taught in schools located less than six miles from their district's resource center. The subjects in the actual sample were distributed among the grades in almost the same proportion as was the case in the sample population to which the survey instrument was mailed.

Returns showed that about 25% of the subjects held a teaching certificate but no university degree; about the same proportion of the subjects held more than one university degree.

Almost 50% of the heads of resource centers saw themselves as having their greatest expertise in audiovisual — or nonprint — fields.

## Resource Center Staffing Characteristics

The heads of resource centers were asked to provide information about both the professional and nonprofessional staffing of their resource centers. Eleven resource centers — one-third of the sample — had no personnel on staff with teacher qualifications; four of these eleven centers did have at least one person on staff with professional qualifications other than those for teaching; e.g., a professional degree in library science.

Ten school districts employed graduate library or audiovisual technicians to work in their resource centers.

Four school districts — 12% of the sample — had no professional or technical personnel of any type working in their resource centers. That is, these four centers were staffed entirely by clericals.

There was a wide range both in the amount and in the kind of formal education held by the heads of resource centers, and in the role and task descriptions that these people provided for their positions. Only two nearly universal factors were identified: a) almost all heads of resource centers were full-time in their position; and b) almost all heads of resource centers indicated that they held special expertise in either audiovisual or library aspects of the educational enterprise. Diversity, rather than similarity, was characteristic of the day-to-day job functions of the heads of resource centers in British Columbia.

The survey returns revealed that there is little or no relationship between the size of a school district (i.e., the total number of teachers served) and the number of staff, the deployment of staff, or the qualifications required by the personnel filling a particular staff position in the district's resource center.

## Typical Resource Center Services

It was assumed that heads of resource centers knew what services their resource centers offered to the teachers in their districts. However, it was not assumed that all teachers would know what services were available to them from their resource center. Thus, it was possible to obtain a measure of knowledgeability about resource center services — and service clusters — on the part of British Columbia's teachers

by comparing the responses of the Teachers Group to those of the Heads of Resource Centers Group.

The adjectives most and typical were used in this study to describe services that were found in 75 per cent or more of the resource centers.

What services — or service clusters — were found to be typical of resource centers in British Columbia?

*The Staffing Cluster.* Clerical personnel were the only types of personnel found in 75% or more of the resource centers; they were typical of British Columbia resource centers. Technical and professional personnel were not typical — they were found in fewer than 75% of the resource centers. Furthermore, an analysis of the teachers' perceptions revealed that they believed that technicians were employed to a much higher degree than was actually the case. Thus, resource centers appeared to be staffed largely by technicians when, in fact, they were staffed in the main by professionals and, in particular, by clerical personnel.

*The Media Collection Cluster.* Almost all types of media were found in most resource centers' media collections. However, about one teacher in five reported that they did not know if a particular type of media was included in their resource center's media collection.

*The Teachers' Professional Library Cluster.* While most resource centers provided a professional library for teachers, fewer than one-half the teachers believed that this service was provided to them from their resource center.

*An Examination Center Cluster.* Heads of resource centers reported that they did little in the way of maintaining permanent or long-term collections of materials for examination and evaluation by teachers. However, almost all heads reported that they maintained files of publishers' and producers' catalogs and that they brought in both print and nonprint media for preview and evaluation by teachers. Only 40% of the resource centers distributed these evaluations to all schools in the district so that the evaluations could be shared by all teachers in the district. In general, classroom teachers were not aware of any of these services; librarians and administrators as Teacher sub-groups, however, were aware of them.

*Television Services Cluster.* The major services that were provided in this service cluster were the provision of prerecorded videotape programs for use with school-housed video equipment, and the provision of ETV equipment for use by teachers either in the school building or on field trips.

*Media Production Cluster.* Once again, a lack of teacher knowledgeability about this cluster of services was quite evident. Almost four teachers out of every ten did not know what kinds of equipment were available to them for use in their own media productions, nor did they know what media were being produced by their resource centers to meet the unique local needs of the curriculum.

*School Library Processing Cluster.* Only about one-quarter of the resource centers in British Columbia provide library processing services for the schools in their districts. One-third of the centers included in the study did provide for the cataloguing and classifying of nonprint media. This service cluster was provided by the fewest number of resource centers in British Columbia.

*Printing Services Cluster.* Printing services were provided by about 35% of the resource centers, with offset press being used more frequently than either mimeograph or highspeed photoduplicating methods. About 70% of the resource centers would provide photocopying services. Almost one-third of the teachers did not know what printing or copying services were available to them through their resource center.

*Science Kits and Supplies Cluster.* About 40% of the resource centers supplied the elementary schools with science kit services. The most common method of supply (60% of the cases) was to distribute prepackaged kits of materials to individual teachers from time-to-time throughout the year.

*Inservice Activities Cluster.* Inservice services were provided by almost 85% of the resource centers. Only 53% of the teachers indicated that they believed their resource center provided such services to the teachers in their school district.

*Awareness Services Cluster.* The most common methods for making teachers aware of resource center media holdings and services were bulletins to, and book catalogs in, the schools.

*Delivery Systems Cluster.* Over 80% of resource centers deliver media and equipment to schools using a resource center delivery vehicle. While three-quarters of the resource centers provided delivery service more than once a week, only 25% of the resource centers provided daily delivery service. Most resource centers had well developed systems for booking and delivery of media and equipment.

*Accessibility of the Resource Center*

*Cluster.* Resource centers were easily accessible in terms of their location, periods of operation, and hours of operation. Resource centers were open more than teachers believed them to be.

Of the thirteen service clusters surveyed, only two — Inservice Activities and the Teachers' Professional Library — were provided by most resource centers. (The Media Collection cluster did achieve a 74% frequency rating which almost put it into the most category.) Television Services and School Library Processing — two services that were frequently cited in the professional literature as being among those services that provided the raison d'etre for resource centers — were offered by fewer than half the resource centers included in this study.

While only two service clusters were identified as being offered by most resource centers in British Columbia, 50 individual services were identified as typical resource center services. These services are listed in Appendix B: The Fifty Services Offered by Most Resource Centers in British Columbia.

## What Services are Wanted by Teachers

The findings described above provide insight into the individual services and service clusters that resource centers are providing and that teachers think resource centers are providing. But what services do teachers want their resource centers to provide? What were the findings related to this major question?

*Inservice Activities Cluster.* (Priority rating: 9.0) Resource centers in this study were providing the kinds of inservice activities that teachers held in a high priority status. Thus, resource centers were fulfilling their expected mandate in terms of teachers' expectations for this service cluster.

*Staffing Cluster.* (Priority rating: 8.8) The staffing of resource centers, especially with respect to the qualifications that the heads of resource centers were expected to have, did not meet the expressed expectations of teachers. Teachers placed a high priority on professional staff with specialized training; this type of staffing was not typical of resource centers in British Columbia.

*The Teachers' Professional library cluster.* (Priority rating: 8.3) While a professional library had a high priority with teachers, 34% of this group reported that they did not know what kinds of professional library services were available to them from their resource center!

*The Media Collection Cluster.* (Priority

rating: 6.8) This service cluster was given the fourth highest priority rating by teachers; they placed a relatively high priority rating on almost all types of media. However, if a media type did not receive a high priority rating, it tended to receive a very low rating.

Videotaped programs, motion pictures, and models were three types of media that the professional literature almost always associated with district resource center media collections; in fact, the rationale for placing these media in district resource centers rather than in the media collections of school libraries, themselves, was that they were considered too expensive for school library collections. These three "expensive" media were ranked sixth, eighth, and sixteenth, respectively, by teachers in terms of their priority rating for including them in a resource center's media collection. Teachers gave higher priority ratings to some of the more "humble", less expensive, media such as audiorecordings, filmstrips, and picture sets and study prints.

British Columbia teachers, then, expected the media collections of their resource centers to include almost all types of media. They indicated no real preference for expensive media items over less expensive, or small format, media. Resource center media collections were expected to support all types of resource needs and in all types of media formats.

*An Examination Center Cluster.* (Priority rating: 6.3) Teachers placed a high priority on a "hands on" approach to examination and evaluation. That is, they expressed a high priority for having materials brought in for personal evaluation, but a low priority on having access to other people's evaluations — whether these evaluations were by persons in their own district or ones available to them from professional reviewing journals.

*Awareness Services Cluster.* (Priority rating: 5.2) Teachers priority ratings left little doubt that they wanted to be kept aware of the resource center's media holdings and services by means of book-type catalogs of the holdings and by bulletins to the schools.

*Delivery Systems Cluster.* (Priority rating: 4.7) Teachers wanted to be able to phone the resource center's booking desk; to be able to make bookings up to one month in advance of the date of required use; and to have media and equipment delivered by a resource center vehicle at a frequency of more than once a week. Daily delivery, however, was not a high priority.

*Television Services Cluster.* (Priority rating: 4.4) British Columbia teachers

wanted their resource centers to provide them with ETV equipment for use with prerecorded videotape programs and for use in preparing their own productions at the school level; they did not place a high priority on what one might term sophisticated studio and / or cable distribution systems.

*Media Production Cluster.* (Priority rating: 3.7) Teachers did not place a high priority on media production by themselves, with the exception of simple photographic and overhead projectuals productions. They expected the resource center to become involved in media production to a greater extent than they wanted to become involved in media production themselves.

*Accessibility of the Resource Center Cluster.* (Priority rating: 3.6) Teachers wanted the resource center easily accessible and open late enough in the afternoons during the days schools were in operation so that they could visit the resource center in person.

*Science Kits and Supplies Cluster.* (Priority rating: 2.1) The provision of science kits and supplies had a very low priority rating with British Columbia teachers.

*Printing Services Cluster.* (Priority rating: nil) Teachers did not regard printing services as being important services for a resource center to provide.

*School Library Processing Cluster.* (Priority rating: nil) Teachers in British Columbia did not regard school library processing services as important for a resource center to provide.

Only three service clusters received a high enough priority rating to be designated as clusters that were wanted by most teachers. However, with the exception of Printing Services and School Library Processing, all clusters had individual services that were wanted by most teachers. In fact, teachers wanted their resource centers to provide more individual services than most resource centers were providing. Appendix C: The Eighty-four Services Wanted by Most Teachers in British Columbia, lists the individual services wanted by most teachers.

**Differences in Priorities**
Heads of resource centers did not always agree with the teachers as to the priority that a particular service should have in a resource center's service program.

The heads of resource centers tended to rate those services that were related to the production of media more highly than did the teachers. Teachers placed a higher priority on having items in the media collection rather than on the

capability to make them. If media is to be produced locally, teachers place a higher priority on the resource center staff producing it than on having access to production equipment and facilities, themselves. Teachers placed a higher priority on the resource center providing library processing services to schools than did heads of resource centers.

Of the services that heads of resource centers felt more strongly about than did the teachers, over half were in the Media Production cluster.

**Summary**
This study has shown that there is a group of some 50 services that most resource centers in British Columbia are providing to teachers teaching in the public schools of this province. There is a larger group of services — some 86 services — that most British Columbia teachers feel their resource centers should provide.

This study supported — indeed, it re-enforced — the conclusions of such previous British Columbia investigators as Fraser and Church, and Kemlo, that there is little uniformity in the kinds of services that are being offered to teachers by resource centers in British Columbia.

This study has shown that there is considerable lack of agreement between British Columbia teachers and the heads of British Columbia resource centers as to which services resource centers should provide and which of those services should have highest priority in a service program. Further, it was found that some services held in high priority by both teachers and heads of resource centers in British Columbia are often not the ones held in high priority by the pundits writing in the professional literature!

This study has shown that many British Columbia teachers do not know what services are available to them through and from their resource centers.

While it might be too harsh to conclude that resource center services in British Columbia were revealed to be in a state of utter confusion, it was certainly evident that there was relatively little unanimity from district to district in terms of the services that were available to teachers in British Columbia.

**Recommendations**
The intent of this study was to determine what services resource centers in British Columbia were offering to teachers, and to determine what services teachers wanted most from a resource center serving them. Like any study, this one had its limitations. It was possible to obtain a measure of "what",

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ASSOCIATION for MEDIA and TECHNOLOGY in EDUCATION in CANADA

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but not a measure of "why" or of "degree". Thus, while it was possible to determine what services were being offered by most resource centers, it was not possible to determine why these services were being offered or the quality of those services. While it was possible to determine what services teachers were holding in highest priority, it was not possible to determine why these services were being held in that degree of priority.

It was impossible to obtain answers to the "why" and the "degree" or "quality" questions using the mail questionnaire technique. Reliable data for the "why" questions could best be obtained by on-site personal interviews of both teachers and heads of resource centers. These are some of the questions that need to be asked:

1. Why was there so much variation in the service programs of the resource centers included in this study?
2. Why was there so much teacher lack of knowledge about the services provided by their resource centers?
3. Why did both the heads of resource centers and the teachers place so low a priority on so many of the services that the authorities writing in the field advocated as being important resource center services?
4. Why did the heads of resource centers and the teachers place quite different priorities on so many services and service clusters?

Answers to these questions are needed. If answers to these questions are not obtained in the very near future, it is quite likely that resource center service programs in British Columbia will lose whatever degree of credibility they have achieved to this point in time. It is unlikely that it will be possible to rationalize and defend forever these differences as revealed by this and other studies on the premise that each district's needs are so unique that these differences are not only natural, they are necessary.

It is recommended that the British Columbia Ministry of Education commission a research officer to investigate the reasons why resource center service programs are so varied from district to district and to investigate why teachers and heads of resource centers hold such varying priorities for so many resource center services. The purpose of such an investigation should be to determine whether these differences are, in fact, legitimate from an educational point of view.

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# Media Managers of AMTEC

Don Bates

*The special interest session for Media Managers on the program of the AMTEC '77 Conference last June was well attended; some good discussion followed. Included in the explorations was the concept of establishing some means of communicating one with another. It seemed reasonable to look to the potential of the MEDIA MESSAGE for such an exchange of ideas. I agreed to play the role of "information coordinator" to try to collect and / or ferret out material on the topic; the result should be a column in the MEDIA MESSAGE of interest to those managing media programs.*

*Plans are to have this special feature interesting. Articles should be short and readable, designed more to give an overview of direction to keep all informed; readers interested in detail can go back to the contributor or other sources. The column should also give opportunity to share ideas or have questions answered; this facet would overcome the feeling of pondering a problem in a vacuum ..... a great chance to draw on experience in the field. Generally, the column should be framed within these guide lines:*

1) *Material should focus on the management aspect of our roles, leaving the media to other pages of the MEDIA MESSAGE.*
2) *Contributions are a prerequisite to an exchange ..... subscribers / members should take a few minutes to relay their successes, frustrations, and inquiries to the column.*
3) *Replies to inquiries are necessary to complete the exchange; take the time to follow-up either individually or as a contribution to the next issue.*

*Submissions should be sent to me, i.e. Don Bates, c / o Grey County Board of Education, P.O. Box 100, Markdale, Ontario N0C 1H0.*

**A Problem Title**
What better opportunity for me than to use the space of this first column published to get at a challenge I have begun! The title is a problem ..... I am not clear whether the problem is work load or lack of budget or a task allocation problem.

*Background:* The media service here was established a few years ago soon after a major reorganization of school board jurisdictions, i.e. county boards formed in Ontario in 1969. A multi-satellite A.V. program was used locally to overcome the vastness of a rural community as well as get production established at the user level. The centrally located service was related to distribution and management more than production.

As the service became established, more demands were made on central support for both the satellite based technicians and the school population. Also, since the beginning, the more centralized services have evolved to include unthought-of services at the A.V. Centre location, i.e. establishing a video tape library assuming responsibility for all Board printing.

Another background factor includes the increasing restriction on available budget. Adding staff may seem to be the answer; I feel though, that we can probably be more efficient with present resources. Some changes were made in the satellite level service about 18 months ago. There was an understand-
able reluctance to initiate major changes affecting school level service so the changes were stop-gap; now I would like to work toward a more permanent solution.

*This graph summarizes the activity / work load over this period.*

*The solid line represents centralized A.V. Centre work load; the broken line, A.V. satellite work load.*

*The graphing is an indication only, not an accurate plotting.*
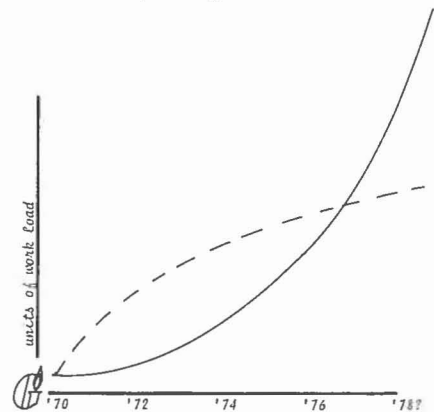


*Working Toward a Solution:* I want to outline what I see as the basis of my dilema as well as what it is I have to do to solve it. Any comment or identified omission will be most appreciated.

To begin with, I have tried to identify for myself what seems to be the most visible problem, i.e. we cannot seem to get a day's work done at the central centre while the three field technicians seem to have less pressure. Less obvious problems, though probably more important in total, include:

a) How will any reorganization / redeployment within the media program framework affect effectiveness at the school level?
b) How will changes affect the staff, especially in relation to rapport and job satisfaction?
c) How can I encourage the administration to have confidence in any recommendations that might be forthcoming?

The process would have to be functional and accurate in eliciting the data upon which decisions could be made; it should also be credible and minimize any threat that might be felt by individuals or groups. At this point, this is what I hope to do:

a) Meet with all staff of the Media Department and look at the problem. This way, all will know the problem is getting attention. As a group, we will try to identify the tasks that form our service. As well as listing, hopefully there will be attempts to prioritize some items.
b) I will meet with all school principles to bring them up to date in our work load balance problems and ask them, working with staff and re-

source teachers, to list the A.V. services used at the school level; again, some attempt will be made to order these. (I have thought of trying to elicit responses by providing a base list with room to expand; the pros and cons of simplification vs. impeding the process by imposing my preconceived notions are being weighed.)

c) Through work with my superintendent, the problems and process will be discussed at the executive level. This will be for information primarily and endorsement of the implementation phase; some direction might also be forthcoming.

Once these stages of input are complete, I hope to work again with individual staff members. A working analysis of what we do, what we should be doing, and what we should be giving highest priority to should evolve. Part of this stage would include a media department discussion session to allow concensus and / or full understanding of decisions.

I will need the agreement of my superintendent; this may involve another session with the executive com-

mittee. From there our organizational procedure will necessitate presentation to our central Education Council and the five local Associated School Councils. Depending on the degree of support with the executive committee or Education Council, a revision might have to be resubmitted to Education Council for final acceptance.

Just in closing, my big concern has been to avoid moving into the decision / action phase of management with only my input — the feeling that I *know* what is wrong and what *needs* to be done is probably what has dictated most to me the need to involve the users / doers of the media service. Their commitment should increase the effectiveness of design and minimize any threatening feeling for individuals or groups.

It goes without saying that I would appreciate a tape, a note, a call, or any conversation about my route through the problem .....

Don Bates
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# Reviews

Guy Leger

### Eagles On the River

In Ontario the Ministry of Education has produced a guideline for teaching a course on people of native ancestry. EAGLES ON THE RIVER is a film which fits this guideline perfectly. In this story of the Dokis, a band of Ojibway Indians on the French River, their method of dealing with the advancement of "white civilization" is well documented.

They have not accepted without some regrets the advancement of the twentieth century technology but have attempted to control the rate of change and development of their 40,000 acre forested reserve. One major change which came not without some controversy was the road into the major settlement. Some felt it was necessary for trade and to improve the educational opportunities of their youth while others felt that the flow of ideas between the community and the outside world would be uncontrollable and they would lose their identity.

The film or videotape also came with a pre-test and a post-test which could aid the viewer in identifying significant concepts.

I found this film to be well edited and the narrative script well written. It should be useful in any course on native studies even if the model presented by the Dokis is not universally accepted.

EAGLES ON THE RIVER (28 mins.) is available in 16mm. film ($300) or 3 / 4" videocassette ($150) from the Office of Audio Visual Services, University of Guelph, Guelph, Ontario N1G 2W1.

### St. Pascal

Anyone who has visited rural Quebec probably came away with the impression that because the village church dominated the topography of the country-side that it also dominated the lives of the people. That may have been true at one time, but times change and so do the social structures underlying them.

In this documentary the changes shown in the past forty years are dramatic. The leaders are no longer agrarian or those of the past elitist group (clergy, lawyers and doctors) but are the new independent small businessmen who have managed to keep the economy of the area relatively strong.

Some excellent historical footage of the 1934 St. Jean Baptiste Society Parade and a 1970 Richeleau Club Meeting contrasts the changes in this short glimpse of Quebec society.

ST. PASCAL would be very useful in any course which looks at Quebec and attempts to reconcile the present difficulties with the historical roots of that society.

ST. PASCAL (21 mins.) is available as a 16mm. film from McGraw-Hill Ryerson, or as a video cassette from the Office of Audio Visual Services, University of Guelph, Guelph, Ontario N1G 2W1.

### The Light Fantastic

Whenever animation is mentioned people normally think of the Walt Disney studios. However, we in Canada are probably more fortunate in that we have the animation studios at the National Film Board. Not only are the films produced here imaginative, but the animation techniques themselves are extremely imaginative.

The history of animation at the National Film Board of Canada from 1941 to the present is well documented in THE LIGHT FANTASTIC. The film Board has given some of the most creative animators the freedom to produce world renowned films. You cannot only see some excerpts of these classics but also some of the humble beginnings of these people. One example of these is Norman McLaren's cartoon to encourage the masses to mail early at Christmas.

Though the film is 57 minutes long it never is dull and in good P.T. Barnum circus tradition always leaves you wanting more.

THE LIGHT FANTASTIC is available in 16mm. film or 3 / 4" video cassette from the National Film Board of Canada.

### Martin the Cobbler

Will Vinton is a master of clay animation. He won an Oscar in 1975 for his film titled, "CLOSED MONDAYS". This production, MARTIN THE COB—BLER, is based on the Leo Tolstoy fabletale, "Where Love Is, God Is". Because of a lack of purpose in life, Martin has despaired and lost hope. In a dream he is told that God will visit him the next day. All the next day he glances out the window of his basement shop in anticipation of His coming. Instead "all" he sees is a succession of people who need warmth, food and comfort and this he does provide. Again he has a dream and comes to realize that this is how he encounters the Lord.

Though this film promotes a Christian message, those who subscribe to a humanistic philosophy may find that it would form a useful discussion starter.

MARTIN THE COBBLER is available in 16mm. from Select Educational Distributors, P.O. Box 998, 129 Thomas Street North, Oakville, Ontario L6J 5E8.

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