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# Media Message

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AMTEC '78 MEDIA FESTIVAL • AMTEC '78 SPECIAL INTEREST GROUP: UTILIZATION CONSULTANTS  
CABLE TELEVISION IN EXTENSION EDUCATION • A REVIEW OF SOME MOTIVATIONAL LITERATURE AS IT APPLIES  
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**L'ASSOCIATION des MEDIA et de la TECHNOLOGIE en EDUCATION au CANADA**  
**ASSOCIATION for MEDIA and TECHNOLOGY in EDUCATION in CANADA**

THE PUBLICATION OF THE ASSOCIATION FOR  
 MEDIA AND TECHNOLOGY IN EDUCATION IN  
 CANADA

# Media Message

SUMMER ISSUE, 1978  
 Volume 7, Number 4

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# Comment

by Dave MacDougall

This editorial column is devoted to the people who co-operate in the production of Media Message and the Newsletter.

I would like to thank Kathie Blais-Dixon of kbd graphics, Ajax for the accurate compository and professional layout; Susan Williams of Guelph for the original cover artwork; Surrey Offset Printers for their consistently fine production and to my wife, Joan for the considerable effort that she has expended transcribing the AMTEC conference tapes which serve as the lead articles.

. . .to Sophie Wrobel and Fred Poser of Kitchener-Waterloo, thank you, Sophie, for the accurate compository and imagin-

ative layout and you, Fred, for the printing of the Newsletter.

Thanks are also extended to the many contributors of Media Message articles and to those who submit announcements, questions and answers to the Newsletter. In this regard, I particularly wish to recognize the efforts of Wayne Blair and Richard Lewis.

Now, a note about publication deadlines.

The deadlines for Media Message, indicated in Volume 3, No. 7 of the Newsletter and repeated here for convenience, are: Volume 8, No. 1, Oct. 15, 1978; No. 2, Jan. 15, 1979; No. 3, April

15, 1979; No. 4, July 15, 1979. Since 4 weeks are needed for compository, proofreading, layout, proofreading and printing while another 2 to 4 weeks must be allowed for mail delivery, you will have approximately one month to react to an article if you wish your response to appear in the subsequent issue of Media Message.

The Newsletter grew this past year to seven issues. A few more "announcements", "questions", "answers" and "positions available" can help the Newsletter reach the status of monthly issues.■

# President's Message

by Larry Burt

I would like to open my first "President's Message" by congratulating the Saskatchewan Audio Visual Association for the fine job they did for all AMTEC members as organizers and hosts of AMTEC '78 in Regina, June 18th to 21st. I do not think that anyone who attended was not impressed by the efficiency, and enthusiasm demonstrated by this group. The program, both formal and entertainment, was well thought out and well executed as can be attested to by the very positive nature of the final evaluator and the comments that could be overheard among those attending. It was truly a NO HASSLE conference as was promised last year.

The Ottawa group was in attendance and if their state of preparation and enthusiasm is any indication, they are going to make Ottawa, AMTEC '79 an even more memorable event. I wish them the best in their planning and along with them extend a warm and enthusiastic invitation to all of you to be part of "THE STATE of the ART" — AMTEC '79.

As happens each year at the annual conference, two new members were added to the Board of Directors and two completed their tenure. Mr. Tom Rich of

the P.E.I. Provincial Dept. of Education and Dr. K. Bowers, Co-ordinator A / V Media Center, Faculty of Education, University of Alberta were welcomed as the newly elected member at large and president elect respectively. I would like to extend congratulations to both of them on behalf of myself and all members of AMTEC. Mr. Wayne Blair, member at large, and Dr. Gar Fizzard, past president, completed their terms of office. I would like to thank both of them for the years of service and the outstanding contributions they have made as members of the Board of Directors.

Since this is where the bouquets are being handed out, I would like to take this opportunity to extend the thanks of all AMTEC members to Dr. Fred Branscombe who recently completed his task of co-author of "Resource Services for Canadian Schools". Any of you who were part of this project or any of you who have read the book know what a difficult task this most recent Canadian Standards was to complete. Recognition should also be extended to the publishers, *McGraw-Hill-Ryerson* and the source of the original operating grant *World Book Encyclopedia*. We also recognize and appreciate

the co-operation of CSLA in preparing this book.

There are two other publications which have been completed by AMTEC members for AMTEC members this year. Joseph Barre of Memorial University updated the booklet title "Courses in Educational Technology — Universities Canada" and Gerald R. Brown completed a "Communications Directory 1978". May I extend the thanks of all AMTEC members to you both for the work you have done to improve communications in these subjects among our members.

Each reader should recognize that the annual conferences and the above mentioned publications are part of the benefits of belonging to AMTEC. Beyond these, you receive four issues of "Media Message" and several newsletters, you can become a member of one or more special interest groups within AMTEC and you have a voice in national and international concerns as they relate to Educational Technology.

The new Board of Directors would like you to know what tasks we hope to undertake this year. We have asked a small group to re-write the *Constitution*,

streamlining it and making it more suitable for a group the size of AMTEC. Dr. Fizzard has volunteered to write a Conference Planning Guidebook, for future conference planners. We have asked Dick Morton and Fred Branscombe if they would begin to commit to paper an open-ended *history* of national Canadian associations of media professionals. This would be a brief history of AMTEC and its predecessors. We would like to formalize the *special interest groups* and give them the support of the Board of Directors. We would like to conduct a *survey* of all members so as to improve our organization and give you a chance to influence it. Sally Landerkin has kindly consented to form a com-

mittee which will write the survey and analyze the results. Watch for it in Media Message. A few members have expressed interest in other projects which could lead to more *special publications*. Since these are in the discussion phase, I will not say more than that I am happy to see members coming forward with ideas for projects that will benefit all of us. This willingness to contribute is very encouraging.

Before I close I would like to thank Dave MacDougall for his efforts in publishing Media Message. As you know, the articles in Media Message are contributed by members so each issue depends on those who have promised articles and

those who simply write one or more on their own. I know that many of you are doing things which you might consider routine or mundane, yet there are many of us who could learn a great deal from the things you could tell us. Don't hide your light under a bushel. The idea of AMTEC and Media Message is the *sharing* of ideas among concerned professionals. Help the Media Message and help your fellow AMTEC members by deciding to write and send an article to Dave this year.

Thanks for reading along with me. I'll keep you posted on what the Board of Directors is doing and how our projects for this year are progressing.■



## Post Production and the Film Lab

**A paper presented at AMTEC '78 by Lou Wise,  
Director of Teaching Aids,  
Toronto Board of Education**

I hope that this presentation may help you discover or rediscover something with regards to certain facets of film-making that may be exciting for you.

This presentation came about because Dave MacDougall, (whose name you may recall because he is presently the editor of Media Message) came to see me one day during the winter. At the time he was media co-ordinator for the Toronto Institute of Medical Technology which is an associate teaching facility, for people in medicine. He said that they had been doing a lot of video tape production, but he was obliged to become involved in some film production and he had no experience with post-camera film production. He knew that we had been doing a fair amount of film work at the Toronto Board and he wanted to sit down and talk about it. As we talked, I drew sketches on paper for him. He took a lot of things away with him, things he'd heard and things I put on paper. The next thing I realized was that he had written to the AMTEC '78 program chairman, Anne Davis suggesting "Why don't you ask Lou Wise to do a paper on the subject?"

Anne wrote and I said "Sure, I'd like to." So here we are. . .

Post Production and the Film Lab; some of the things that go on in film making that perhaps many of us don't think about too

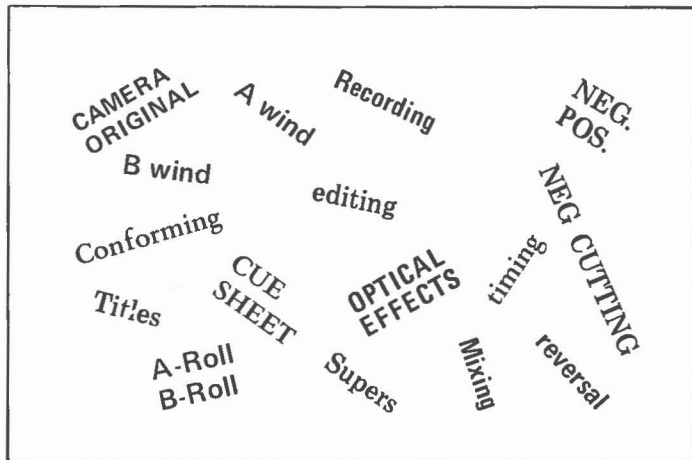
often or may not know a great deal about in terms of all the facets of film making.

I'm told that Alfred Hitchcock often does a great deal of his own scriptwork. At a conference that he addressed several years ago in Toronto, he made the statement that, "When the script is finished, much of the challenge and much of the joy of film-making is already behind me." This is because Hitchcock always prepares his scripts in infinite detail, and because he rules with a very heavy hand over everybody working on the production. It must be done precisely and exactly according to the things he set down on paper. He had actually visualized every last bit of detail that will be on the screen at the time when the script is finished.

I think that for most of us, it's quite different. Certainly we'll find a great deal of joy and I know a great deal of frustration — and hopefully, a sense of accomplishment in each of the aspects of the entire job of film-making — not just in the scriptwork. I think that for all of us, even when the scripting, the photography and the direction are all behind us, there is still another whole world of work to be undertaken. That's what this presentation is intended to address itself to; post production — editing, lab work, recording, mixing, neg cutting, more lab work and finally

on to the screen.

Now don't misunderstand, I'm not a lab man, so I can't talk like a lab man. You may come up with some questions I'm not able to deal with, questions that have to do with some technical detail that a lab man would be expected to know but I would not. I have found the working relationship with the film labs and the commercial recording facilities to be fascinating and demanding. It is a relationship, I think, about which every film producer should know a great deal if indeed the final product is going to work the way that the producer wants it to work.



*New vocabulary [A-B, mix, neg cutting, timing, etc.].*

One of the things of which you'll need to develop an early awareness is the vocabulary. What is B Wind? A and B roll? Neg cutting? Optical effects? Cue sheets? Supers? Mixes? Crossfades?

For this presentation, I am going to make several assumptions. We are not Hitchcocks. Our script has been finished but we're not finished. We're going to be talking about a film that has voice over narration but does not have dialogue. Therefore, in this case, there is no requirement for lip sync recording which is often referred to as double system. Double system simply means that when you are doing dialogue, you've got to run a recorder and a camera, and they must be in sync one with the other. Two pieces of equipment, hence, double system.

However, we're not going to concern ourselves with that; we're going to assume that our script has been finished. (Camera script and narration script because our film will have voice over narration.) We're going to assume that our photography has been finished. Another assumption that I'm going to make is that you have probably used what still continues to be the most widely used 16mm original camera stock, certainly on this continent; Eastman type 7252 which is sometimes called ECO or commercial Ektachrome. We've also had the lab finish the processing of our camera original film and the lab will have done an inspection on that, as part of their quality control, (protection for you, the producer).

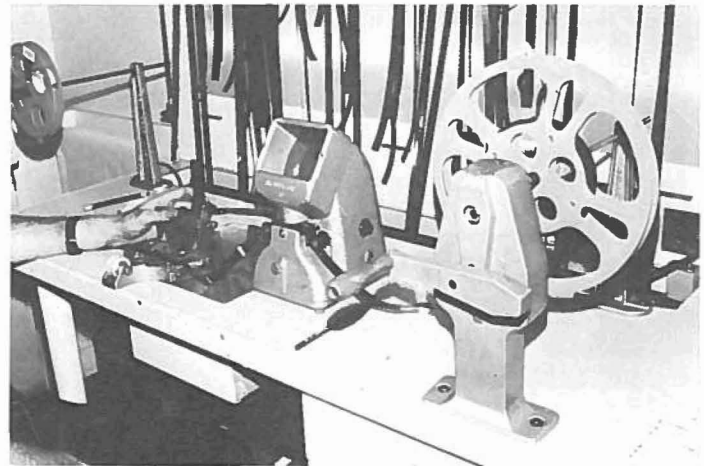
If the script assistant has made a lot of worthwhile notes during shooting then we may be in a position to request that the lab, based on information that we give them on paper, do a selection of the good takes. In a particular shot or a scene for example, it may have been necessary to do several different takes. However, if the work of the director, the person on camera and the script assistant have been such that they have all worked closely together and if the notes done by the script assistant for the camera record is such that it's possible to say, "Take three is a good one," it may only be necessary to print take three. If you shot many, many takes on many of the scenes and then decided to get a workprint of all of them, it will cost you much more money. It will be far less expensive, if your notes have

been such that you can say to the lab, "Here is the record, select the good takes, make workprints just of these."

At this point the lab is ready to make your workprint. This, possibly is a new term for some of you. A relatively inexpensive, usually one light and one colour balance, contact print made from your camera original. It's called a work print because you work with it. It's not really intended for projection to audiences. It is intended as something that you will edit.

What's a "one light" workprint? The printing machine must have the capability to deal with originals of different densities. If you've got a dark original, then the machine must be set up so it can put more light through it in order to give you a satisfactory final density on your print so that it can be seen by audiences. If on the other hand, your camera original (film) was overexposed, is very light, and lacks density, the printing machine needs to be adjusted in the other direction. These different exposures that are given during the printing are referred to as "lights" on the machine and there is a range of lights. Usually, a workprint doesn't need to have that kind of correction because it costs more to get it. So they just set the machine at the middle light and you get a one light workprint, uncorrected for density.

Now we have our workprint back from the lab and we're ready to start doing some editing on it. One of the beauties, of course, in working with the work print is simply that we're not working with the original. It's tucked away safely. It will not get dirt, dust, cigarette ashes and fingerprints on it. It won't fall on the floor and get stepped on. It doesn't matter if the work print gets all of these things. You can handle it without using gloves. It doesn't matter if it gets a little dirty.



*Editing the workprint on the editing bench — Teaching Aids Department.*

The equipment that needs to be on the editing bench includes a good viewer and a splicer. We use a tape splicer because it is faster than a cement splicer. Certainly you don't need cement splices at this stage of production. You need long arm re-winds; long arm so that later on when we get to other aspects of the whole post-production exercise, we can put several reels on the one set of re-winds.

Now this is the point where selections and decisions need to be made. Some of them are very practical while some of them are creative but all relate to the cutting and to the splicing. We are fortunate enough to have a Moviola. I should point out at this point for those who do not have their own facilities, they're usually available in the commercial labs. Most commercial labs will rent you editing space. So if you have your own people who can do film editing, you needn't give up on the project because you don't have the facility, you can rent the space.



*The Moviola.*

I don't know for how many decades the Moviola was the principal editing machine for all of the Hollywood film productions. Almost invariably, if you saw photos of Hollywood editors, they would be seated at a Moviola. Today, if you go to a commercial facility, either to rent the facilities or to both rent the facilities and hire a freelance editor, the editing will likely be done on a flat bed editor.



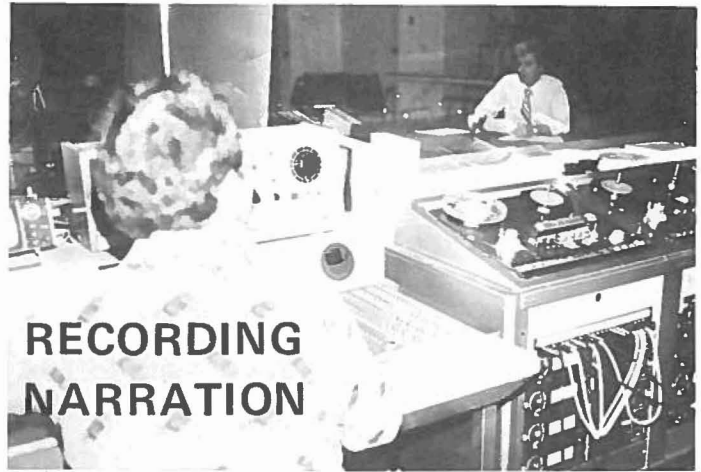
*Flat bed editing in the lab, rental.*

The flat bed editor is taking over rather quickly from the vertically oriented Moviola. It's quicker to handle and it's a more flexible piece of equipment. It can be threaded and unthreaded more quickly. Therefore, editors generally, seem to prefer flatbed equipment.

In the editing stage, one of the things that needs to be done, is to make marks on the edited workprint to indicate fades and dissolves. This will be useful when the narration is being done because the marks will show up on the screen. The narrator who may be reading to the projected picture will see the marks going through and will know when there is a fade or when there is a dissolve. Also, the lab people will have some further information when they come to make final prints of your production.

Now, the editing of the work print is all but finished. We've projected it a number of times, we're happy about all the cuts, we're happy about the continuity, the pacing, we're happy about everything in that workprint. Likely, we've run the workprint several times and someone has read the narration against the workprint to find out if the narration still fits. Or does the narration have to be edited so that it will fit the workprint?

Are we going to get all those words into the amount of space provided by the amount of film footage that we're putting on the screen, in each given scene or sequence? When we've gone through all that, we're ready to record the voice-over narration to the picture.



## RECORDING NARRATION

*Recording narration — Teaching Aids Department.*

The man at the console in the foreground is looking through a double plate glass window at the narrator (background) who is seated at the table with a microphone and the script. The narrator will be able to see the projected picture on the screen above the head of the man in the foreground and he will be able to cue himself as he is reading the narration and being recorded.

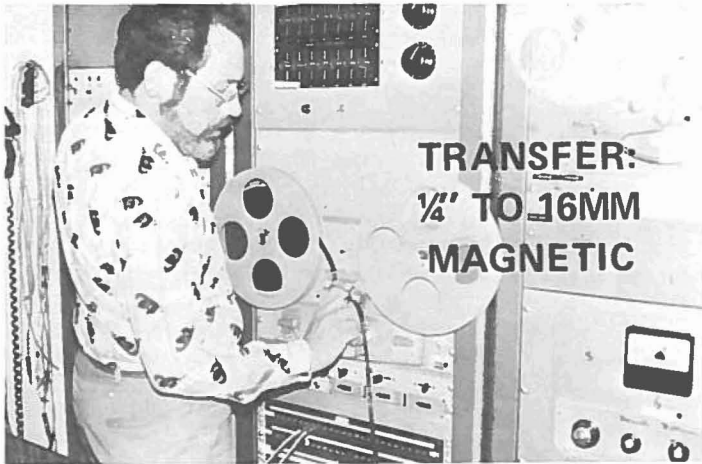


*Narration at Teaching Aids Department.*

Our Phillips console has enough channels so that we can set up several microphones if indeed it was that kind of narration or that kind of recording. In this case only one channel is being used because one person is recording narration to picture. The narration is being recorded on to 1 / 4 inch Ampex equipment which you see over to the right. Keep that point in mind because I'll return to the original 1 / 4 inch recording later on.

Once again, if you don't have the facility for this kind of recording at your own place, you may need to do it at the commercial recording studio. (In either case, there needs to be some facility for the projection of the work print.) A client can go in with a narrator, a script, and an edited workprint and they'll put the edited workprint in the synchronous projector, running at a constant 24 frames a second. As it's being projected, the narrator who is in an announce booth, will be reading the script and cueing himself from the projected

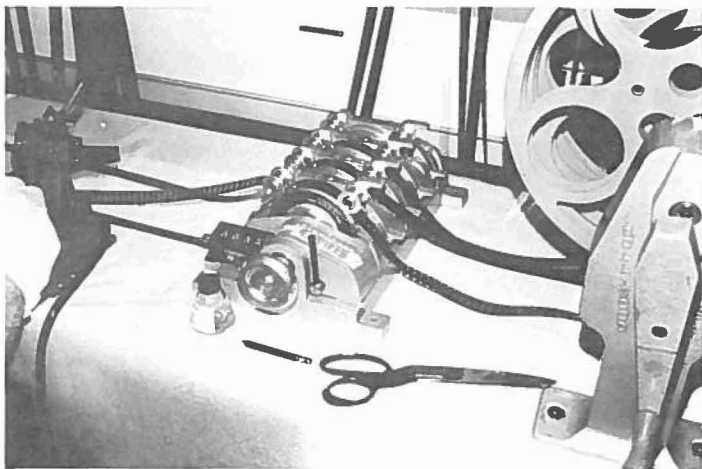
picture. The film is also going to have some head and tail title music and some sound effects. There are libraries of these things that can be used at relatively low cost. I'm sure that you're all aware that you run the risk of law suits and legal action if you use regular popular recordings. There are many libraries of disc and tape recordings of both music and sound effects to which you can have fairly easy access and for fairly modest fees, the right of use. Another assumption is that while all these other things have been going on, some decisions have been made — you've listened to some music; you've selected some sound effects; you've picked out these originals and they likely have been recorded on to some 1 / 4 inch audio tape.



*Transfer 1 / 4" to 16mm, Teaching Aids Department*

We're transferring this 1 / 4 inch material onto a 16mm film called full coat; magnetic recording oxide coated on 16mm film from edge to edge. That's a necessary step because later on there will be a whole editing process where we will want to make sure that our sound is going to remain in step with our carefully edited picture. In this case, the 1 / 4 inch original recording of the narration, the music and the sound effects are being dubbed onto separate rolls of the full coat 16mm magnetic stock.

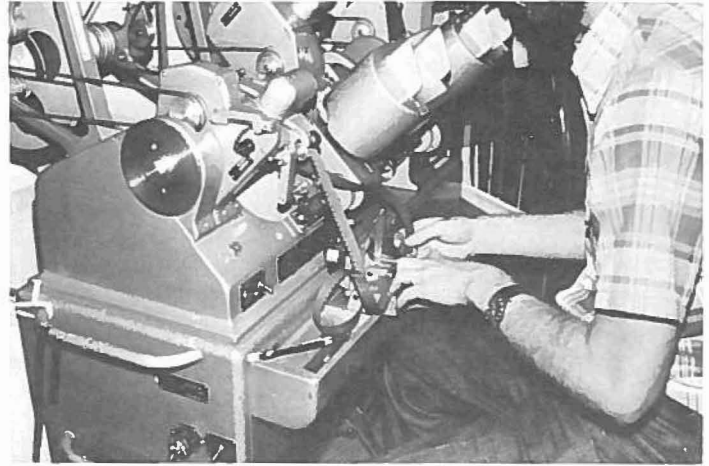
Again, if you don't have that facility you rely on the commercial people.



*Back to the bench: synchroniser, matching mag. tracks to workprint.*

Now once all of that re-recording on to 16mm full-coat has been done, it's necessary to go back to the editing bench. Now, we have to know a little bit about a piece of equipment called a synchronizer, a mechanical device with some rather large

sprockets and a means of locking the film on to those sprockets so that the film cannot shift one way or the other. It's possible to lock several strands of film into the synchronizer and they will remain in step, so that we can adjust the voice track, the music track and the effects track to make sure that those things fall at the appropriate and proper places in relation to the film, exactly where we want them. No further cutting is being done on the workprint at this stage. The cutting is being done on the magnetic recordings to bring them into step with the workprint.



*Matching mag. tracks to workprint, T.A.D., Moviola.*

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The Moviola or the flat bed editor is a very handy device in this case, particularly, since either can be run at sound speed. When you're working with hand operated re-wind equipment you cannot possible maintain a steady sound speed of 24 frames per second rate. (What is happening here is the very close matching of the 16mm sound recording information to the picture.)

Once that's all done, we're ready for the operation that's usually done in the commercial studio. That is the mix; the mixing of the voice, music and sound effects. The track from each of the three separate roles of 16mm magnetic film must be combined to make one final sound track so they've got to be mixed.

Prepare a cue sheet for the lab. This will be useful to the commercial recording studio person called the mixer, so that while he is watching the picture being projected and listening to the sounds coming from these three different sound tracks, he will have the paper guide that you have prepared, indicating to him that the music comes in at this point, the music goes out at that point, the sound effect comes in here and goes out there, the music must fade under the voice at this point, that it must remain faded under the voice but not entirely out. He won't know how to do that unless you tell him by putting it on a cue sheet. Therefore, the cue sheet must be very carefully prepared with footage indications and all the instructions for the mixer.



*Loading mag. tracks in dubbers, commercial recording studio.*

Now we're back in the commercial recording studio and ready to do the mix. What they're doing here is taking these three separate tracks that we have been talking about and setting each one on its own dubber. In this case, these are playback machines. They can all be electronically interlocked so that they will remain absolutely in sync, frame for frame. Once again, the work print is put into the projector which is also interlocked electronically with the dubbers.

The mixer at the console really should have about sixteen arms and two sets of eyes. He's got to watch the console. He's got to watch the cue sheet. He's got to watch the projected workprints. He must listen to the several tracks that are coming through the speakers in the studio where he's working. And he must operate the console according to your cue sheet, and according to what he sees on the screen and hears in his ears he must blend and mix them the way that you, the client wants to have it done. All of that mixed sound is being recorded on the master recorder which is loaded with another roll of 16mm fullcoat magnetic stock, providing a mixed master 16mm magnetic sound track.

Since our print eventually must have a photographic (optical) sound track, the information on the mixed magnetic sound track



*The mixer at the 12 channel console.*

must be transferred into an optical form. The 16mm mixed master sound track that matches the workprint exactly and has met your approval has been threaded into a playback machine.



*Setting levels for the transfer.*

Photographic sound track negative film is loaded into the printer unit so that an exposure can be made which when developed will give us an optical sound track negative.

Meanwhile, back at home, because we've been satisfied with our edited workprint, as far as picture content is concerned, and since the lab, finished with our work print, has returned it to us, there is another job that we have got to get underway. When the workprint was first made, we put the camera original away in some safe place so that it would be protected. Now, however, we've got to match the camera original film to the edited workprint, conform the original. . . do neg cutting. More often than not in the film industry, they refer to it as "neg cutting" even though they may be cutting positive film. Just remember that your camera original was a reversal positive film — commercial Ektachrome. I'll talk very briefly later on about camera negative but even though they're working with positive film they still call it neg cutting. It's a generic term.

Why do we cut the film into an A roll and a B roll? Why do we wear white gloves? Once again, it's because it's the camera original film and among other things, we don't want to get fingerprints on it, because the fingerprints may be transferred onto the final print.

The editing bench is cleaned up before you start to work. A number of years ago, I had contact with a lab in Kansas City, Missouri that was at that time called Calvin Films. Now it's



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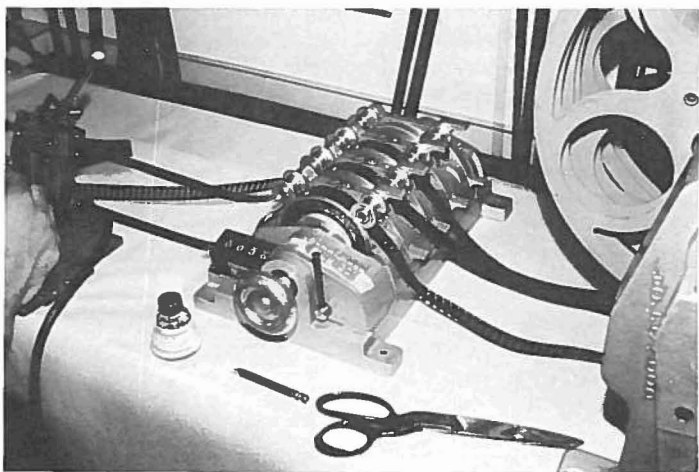
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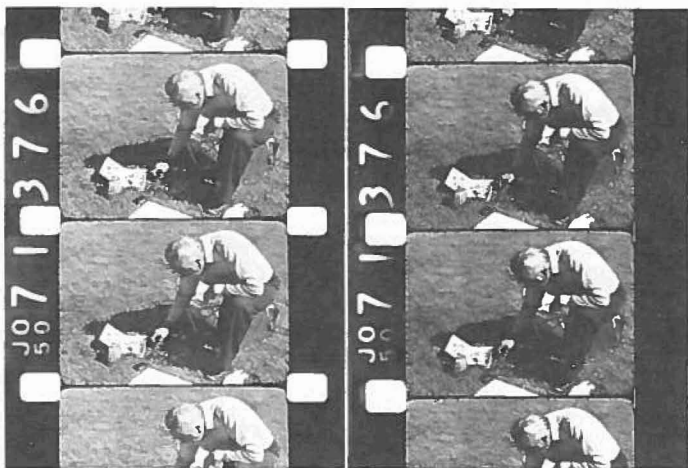
called Calvin Communications. They had a slogan that they used for a long time. It said, "We clean up before we start to work." Most people clean up after they finish work but with film you clean up before. You clean the editing bench and you cover it with tissue paper, just to keep that original clean. And that's why you wear the white gloves. You use the synchronizer because you must match the camera original exactly to the edited work print.

David Lean, a very famous British director (*Zhivago*, *Ryan's Daughter*, *Lawrence of Arabia*, etc.) started out in the film industry as an editor and he continues to supervise the editing very closely in many of his productions. He once wrote "There's a tremendous difference in the dramatic impact that will be realized by making an edit at a particular frame when going from one shot to another and the loss of that impact if the cut is made one frame too soon or one frame too late." Now if your editing on the workprint has been done with that kind of precision and creativity then you can understand the importance of the same level of precision when cutting the original to exactly match that edited workprint, frame for frame.



The synchroniser, cutting original.

At this point, the splicer being used is a cement splicer because that is what the lab wants to have and must have on the original. Taped splices are not acceptable at this point since mylar stretches.



Edge numbers, workprint and original.

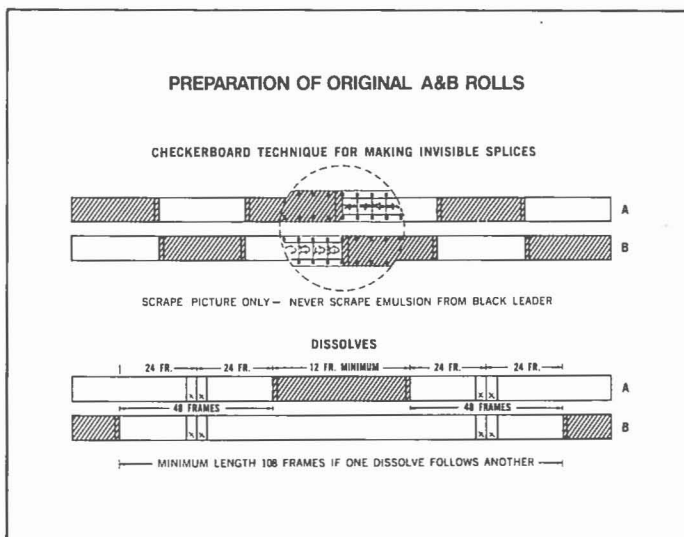
This is simply a couple of short pieces of 16mm film put into a 35mm 2 x 2 slide mount. The piece on the left is a camera original. The short length on the right is a piece of one light workprint (editing copy) made from that original. I put it in here

because I wanted you to see those edge numbers. The edge numbers on the piece of film on the left were originally exposed there by Kodak when they made the film. When the film was developed after we took it out of the camera, you could read those edge numbers. When the lab made the workprint on the right they exposed the edge of the film so that it would print through the edge numbers and get the corresponding numbers on the work print. This aids greatly in that need for precision when conforming the camera original to the edited workprint. There's one of those footage numbers every foot, so that you can very quickly and very easily find the frames that you need.

Remember then, the splicing on the original is done with cement splices, the gloves being kept on throughout that whole process.

Now, back again then, to the preparation of the A and B rolls. Why the A and B rolls? Why the two different rolls? Generally speaking, the original is cut into two rolls (a workprint is all on one roll). We have shown fades and dissolves on the one roll workprint with the markings that we looked at earlier.

A dissolve occurs where one shot on the screen is fading out but at the same time another shot is fading in so that the screen never goes blank. Very briefly, you've got a super-imposition of one shot on top of the other — a dissolve. Sometimes it's called a crossfade. There's no way that you can print that, if you had your original cut in one roll because you can't overlap two pieces of original film in one roll. So it's simply a necessity that if there are going to be any dissolves at all and if there are going to be any superimpositions of titles, for example, (here also you would have to deal with two separate pieces of original film) you can't put them together in one roll or on top of each other, so you've got to have the A and the B rolls.



Preparation of A and B rolls, checkerboard, dissolves.

In the example shown, the head end of the film is at the right. The clear white area represents picture; the cross-hatched area represents black leader. The sketch shows two dissolves, each 48 frames long. The centre of the dissolve [the point of superimposition] is marked xx in adjacent frames.

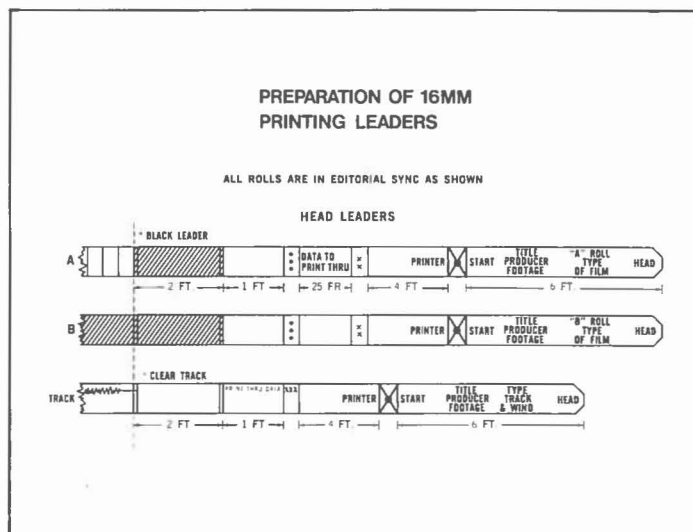
In the A roll we've got a piece of picture, a piece of black leader, a piece of picture, a piece of black leader, etc. Below the A roll, you can see that where we've got a piece of picture on the A roll, we have a piece of black leader on the B roll, and vice-versa. Through the section marked 48 frame, you can see that we've got the situation where we do in fact have an overlap of picture information. We haven't overlapped one piece of film on top of the other but there is an overlap of information that will result in the final printing. What happens is that because we

specify to the lab that we want a 48 frame dissolve (keeping in mind that the white area represents the picture) we're going to be dissolving out of the shot on the A roll into the shot on the B roll. As we noted earlier, the dissolve is a combination of a fade-out on one shot and a fade-in on another shot. In the printing operation, when they print from the A roll, (the two rolls are printed separately) exposing through the A roll on to the raw stock on which our print is being made, the shutter of the printing machine is controlled so that it will start to close at the beginning of the dissolve. It's been wide open up to that point. Forty-eight frames after it starts to close, it will be fully closed. So what we've been doing is fading out on that shot. Later on, when we have finished printing the A roll and the B roll is ready to be printed up, the raw stock is re-threaded with the head end at the beginning. Now the reverse will happen. In this case, the shutter will be closed when it is on the black leader of the B roll and when it gets to the beginning of the dissolve, the shutter will start to open. So we have a fade-in for the first 48 frames and at that point the shutter will be fully open and we're printing a full exposure to the remainder. What they've done is to expose a fade-out while printing the A roll, and they've exposed a fade-in with the B roll and that gives you the overlap and the combination of the two.

One of the other things that the A and B roll cutting technique provides is the possibility of invisible splicing. At the centre of the dotted circle in the top diagram you can see the frame line on the B roll and the corresponding frame line on the A roll. There is no splice into the picture area. The picture on the contrary is spliced into the black leader. There is a full frame of picture beside the black leader on both A and B rolls. The splice is a common line and it will not be seen in the developed print. You get invisible splices when cutting the A and B rolls. If it's all cut into a single roll then of course there will be an overlap of one frame to another between shots and you will see the splices on the screen. The other thing that the A and B roll technique permits, is the use of superimposition. While it's not illustrated here, the same kind of thing would apply. For example, let's assume that we have some titles that we want superimposed on one of our picture shots. The long white section (picture) on the B roll in the bottom sketch will be printed as picture on the raw stock. If we now assume that the section shown on the A roll is clear white titles on black background (instead of being black leader) it will then be exposed as white titles superimposed on the picture exposed from the B roll. We have our superimposition.

Through all of this, I hope that it has been evident that you have to make sure that the lab knows precisely what you want. I referred to the cue sheet for the mix. If you haven't done a decent cue sheet the mixer isn't going to know exactly what you want and it's going to become additionally time consuming and costly when you go to do your mix. The same thing is true of the kind of information you must give the lab when you want to get your print made.

You've got to have precise information on the leaders of the film and you've got to have precise information in the form of additional cue sheets for printing purposes. The shots that I showed you earlier of the "neg cutting" or conforming the original were all done at our place at the Toronto Board. Again, if you haven't got the facility you can usually get it in the commercial lab. But whichever way you go, the preparation of the leaders and the printing cue sheet is the last stage of preparation for the "answer" print. Everything is ready to come together to make an "answer" print, or the first trial print with picture and sound combined. The "answer" print is the first print that you're now going to have where all the information will be combined from the original camera material, and the sound track that was mixed and transferred onto optical. These are going to come together and we're going to get a print that will



Preparation of 16mm printing leader, ACL.<sup>1</sup>

give us the answers. Have we got the colour balance that we want? Has it got the densities all the way through that we want? Is the sound track really as good as we expect to have it in the final form? It gives us the answers.

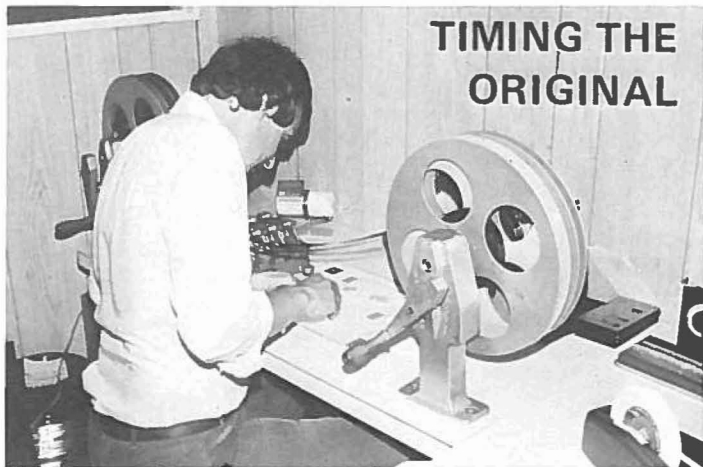


Sensitometry in the lab; densities, colour balance, contrast range.

Now overriding all of this, are a great many things that the lab must do for you, the client, to make sure what comes out of the answer print and the later release prints, will be just what you want. They've got all kinds of controls. The man who does sensitometry concerns himself with densities, with colour balance and contrast range. He must insure that the printers that do the exposing, the developing machines that process the film, the chemical department that mixes the chemicals and keeps track of the quality and the replenishment of the chemicals, are all working properly, keeping a good quality balance of colour, density and contrast range. He is continually reading that kind of information and is keeping the other lab people informed. There is also a great deal of quality control work that must be done in the chemical lab.

In order to get ready for making your answer print, the lab has to do something called timing. Are the densities exactly the same all through the originals or will some of the originals be a

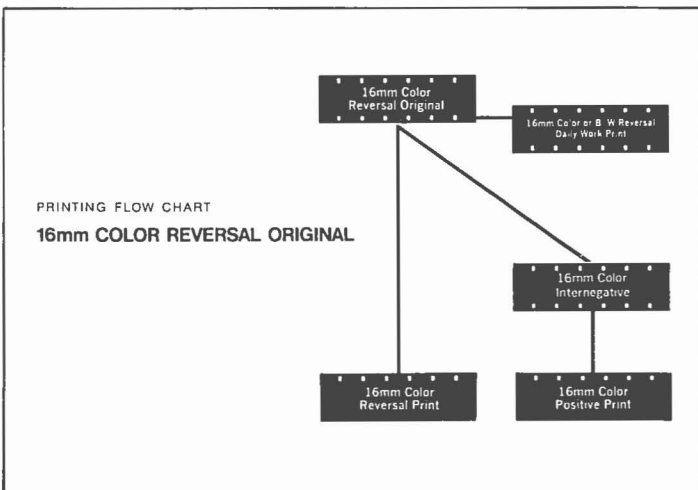
<sup>1</sup> Anybody who's getting involved in any post production activity, could do far worse than to become aware of the A.C.L. Association of Cinema Labs Handbook. You can learn a great deal from it.



*Timing original reversal.*

little dark and some a little light. The timer examines the film usually and makes decisions about exposures and colour corrections. That information is recorded on a timing sheet. This is then used in the preparation of a printer control tape. Now we're ready to thread up the printer. We've got an A roll and a B roll camera original and we've got a sound track negative. We've also got to set up the raw stock on which we're going to expose all this and then later on process it and come up with the print. It can't all be printed together. They can run two pieces of film through the printer at the same time along with the raw stock on which the exposure is being made. So the lab may elect to run the A roll and the sound track negative at the same time, and make the exposures. The punched tape prepared from the timing sheet is put in place because the tape must now exercise control both for density and colour balance. We may feel that one shot is a little too green or a little too magenta and we want it brought back into some kind of normal balance. So there must be additional control exercised over the colour balance of the printing machine. That, too, is done by the punched tape.

Now we're down to the final stage. We've looked at the answer print, we're quite happy with everything and we need to make a decision about release prints; the prints that will be sent out to the schools, the colleges, wherever they're going. They may be prints that are to be marketed somewhere. How many prints are going to be made? Keep in mind that for the moment we're working from the reversal camera original but what is the final quantity to be? Are we going to have reversal prints made or are we going to decide to go to negative positive?



*16mm reversal, printing flow chart, [ACL Handbook].*

This simply refers to some of the steps that these things do go through, starting at the top with our 16mm colour reversal original. The workprint is the one immediately off to the right. In our case, it was the 16mm colour workprint. We're only dealing with colour. If we have decided on only a few prints, we may also have decided to go strictly with 16mm colour reversal prints, made directly from our camera original. If, on the other hand, we need a lot of prints, we may find it's cheaper while providing more protection for the camera original, to go over to the right, to get a 16mm colour internegative and then to have 16mm colour positive prints made from that.

I've jotted down some figures because the question often comes up, "Well, how do you decide where the breaking point is on the basis of quantity?" The breaking point currently is about six prints. That is, if you buy six prints using a 15 minute film as a standard.

If we wanted to get one reversal print from our camera original at the two to ten print price, (this is assuming that we're going to get more than two prints) the cost of one of them would be about \$119.00 for that 15 min. film. Six prints at that two to ten print price would be 6 x \$119.00, so we're now up to \$714. for six prints made directly from the camera original reversal.

What happens if we now go over to the negative positive; that right hand path. We have to pay for the internegative but we also have to pay for what is called an "A" wind sound track. We already have a "B" wind sound track. We saw that being made in the earlier stages. That's behind us, but now if we're going to go for the use of an internegative we've got to pay for another optical sound track. The combined cost for the internegative and the "A" wind sound track is going to be about \$297.00 — but our same six prints at the cost of positive prints at \$71.00 each is only \$426.00; a total of \$723.00 for six positive prints; but from here on every time we get another positive print made from the internegative, we only pay \$71.00 versus \$119.00 per print if we had stayed with the reversal prints from the camera original. So that's the kind of a rule of thumb that applies and usually on the basis of print costs, we can make the decision as to whether we're going to direct reversal prints or to negative positive.

Before going on, let me mention a couple of additional services available in most of the commercial labs. One is film cleaning and lubrication. Another service is storage of the customers' printing materials if they don't have the facility for it. Most of them tend to have a fairly decent storage vault and you pay them a little bit to store it for you.

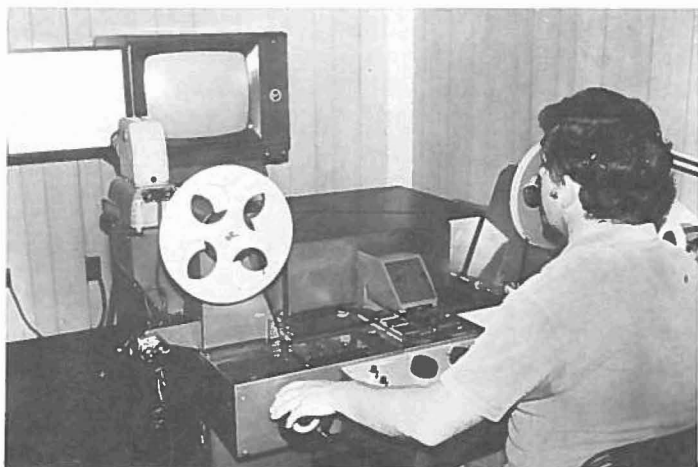


*Clean air cutting of original negative.*

I said earlier that I would touch very briefly on another kind of camera original. About three or four years ago, for the first time, Kodak introduced 16mm camera negative film. The ECO

type 7252 that we've been talking about had really been the most widely used single 16mm colour film, for a long, long time. Then they came along with type 7247 negative, and in the three or four year period, that film apparently has taken over an awfully large chunk of the whole business. There are some complications however. One of them is the need for absolute dust-free cleanliness of the negative. Commercial labs have clean air booths.

Through some kind of ionization process that booth is kept free of dust because if you get dust on the negative it shows up very badly on your prints, more so than if you get dust on the positive reversal film. For quite a while, many people were having problems working with the negatives but they seem to have



Neg timing — Hazeltine.

gotten over those. Now many people are using negative as opposed to camera reversal. However, when you're timing negatives, you can't just eyeball the stuff because it's hard to look at negatives and know really what you're seeing. So you have to do something just a little different. You have to use a system called the Hazeltine timer.

It does an electronic job. The lab man can adjust densities and colour balance, and he can get a visual image on the video screen to the right. With a video system it's easy to electronically reverse the negative to get a positive image. He projects a piece of control picture by direct front projection from that slide projector on the left, and then compares the two. On the basis of his comparison, he can then prepare a timing sheet to be used for printer control.

In order to bring this all together in some way, I brought along a short film that runs for about ten minutes. Let's look at this film, it's called "Wet and Wild".

John Bennett is co-ordinator of visual arts for the Toronto Board of Education. He's a water colour painter of great merit and he's recognized in water colour painting societies, coast to coast. We thought that it would be beneficial to our students to do this little film about John Bennett doing a watercolour painting.

#### Film

Jack Stead:

*"Lou, on behalf of all of us here I want to thank you for giving us a better idea of the complexities of motion picture production and particularly for that beautiful little film at the end. It really tied things up very nicely. I'm sure we all have a better appreciation of what goes into a film and why they cost so much. Thank you very much!■"*

## "What Communications Gap...?" A Summary of AMTEC '78 in Regina

by Doreen Bauman  
Executive Assistant, Saskmedia

AMTEC '78 happened during the 75th birthday celebrations of 'The Queen City of the Plains', Regina. As any good hostess might, Regina turned on its very best for these four days in June: the weather was sunny and warm; the landscape was lush and green; the buds and blossoms of Spring flowers were an array of color; the weatherman turned down the wind velocity gauge to (almost) calm; and, the refurbishing of the convention hotel — The Regina Inn — had just been completed. This was the setting for our recent conference. Completing the scene, an enthused lot of delegates arrived from St. John's, Victoria, and all points between. Each one contributed to the general air of excitement as AMTEC '78 began.

Following registration and a brief tour of the City on Sunday afternoon, BELL & HOWELL hosted a reception and scrumptious buffet in the evening. In addition to the culinary delights, this was a delightful opportunity for delegates to renew acquaintances and greet friends, old and new. Jet lag was cited as one reason some delegates retired early; for those

it didn't bother, various hospitality suites were scenes of jovial gatherings.

Monday morning, after one of the conference's buffet breakfasts, and a breakfast meeting of the Francophone Group, the convention was off to a good start. Greetings from the Province of Saskatchewan and the City of Regina preceded the conference's keynote address delivered by Professor Donald Gordon. Before the five concurrent sessions began, delegates were able to tour the eighteen exhibit and display booths set up on the convention floor and mingle with others while enjoying a morning cup of coffee. Delegates could select from five topics: "SASKMEDIA — to service the expectations of the Saskatchewan public"; Student Training in the Media Resources Program of Vancouver's Capilano College; "16mm — Post Production and the Film Lab"; "Saskebec U-9"; and, "New Sounds in Music".

Delegates were guests of the City of Regina at luncheon, with Dr. John Archer as guest speaker. Dr. Archer's forté is history

# AMTEC '78 REGINA



*Sunday's buffet was a source of good food and friendship.*



*Ample opportunity to share ideas was provided over the conference's meals.*



*The packed Ukrainian Hall on Monday night was the setting for one of the convention's memorable evenings.*

*Delegates are being reminded that Ottawa beckons you to AMTEC '79 in Ottawa.*



*Dick Morton, one of the five recipients, acknowledges his Leadership Award at Tuesday's luncheon.*



and attendees were treated to aspects of Saskatchewan's colorful past.

"Science and Society: Identifying the Communications Gap" was the topic addressed by Dr. Paul Buckley at Monday's theme session. Concurrent sessions were offered during the afternoon, covering topics such as production of in-house programs, networking in British Columbia, education planning for audiovisual literacy, the cable cooperative in the Battlefords, production planning for audiovisual materials, and a trip to the RCMP Academy for a study tour of the Academic Building. The sixty-five delegates who selected the RCMP tour were happy they had crammed onto the bus available for this informative session.

Monday evening turned out to be very conducive to 'Closing the Communications Gap' as 300 people attended "Ukrainian Night" for dinner, entertainment, and dancing in a hall usually thought to hold 225 people! The gap was, indeed, narrowing! PANASONIC and COMSOUND OF CANADA sponsored the reception and the Province of Saskatchewan provided the seven course meal on this fun filled evening. The spontaneous singing of "O Canada" concluded the evening on an emotional note as people joined voices and languages in a most rousing rendition of our national anthem. Day two of AMTEC '78 was over.

Tuesday's activities began as four special interest groups assembled to head topics presented over breakfast. Theme Session Two began at 9:15 a.m. when Robert Fox, AIT, addressed his audience on "Co-operative Development". Then followed six concurrent sessions on Multi-Media Education, AMTEC Concerns, Keeping the Audience Informed, Screech and the Communications Gap, a panel discussing Instructional Development and a study tour to production facilities of SASKMEDIA.

Ted Armstrong, Gordon McLean, Dick Morton, Frank Murphy, and Cec Wilkinson were recipients of Leadership Awards at Tuesday's luncheon. As well, a number of awards in two categories — Excellence and Merit — were presented to winners in this year's Media Festival.

Entries into the Media Festival were shown via closed-circuit facilities throughout the convention hotel over the duration of the conference.

Dr. Marie McMahan, AECT President, noted during her address some of the changes needed to bridge the gap between technology and education in the pursuit of educational goals. The Ottawa Planning Committee's 'sweet' presentation to those

at luncheon, along with narrated audiovisuals, whetted appetites and sparked interest in AMTEC '79.

The AMTEC Annual Meeting was held during the afternoon period. Reins of office were handed over the AMTEC's incoming President, Larry Burt.

A visit to the legendary Qu'Appelle Valley (where, you will recall, the hills are inverted. . .) and a tour of one of the valley's large farms preceded a specially prepared lamb barbeque and 'prairie stomp', which was sponsored by SONY OF CANADA Tuesday evening. As one delegate was overheard to remark, "I was impressed with the setting, the hospitality, and the food — but, when you rolled the prairie sun down over one hill and the full moon up over the other, it was just too much!"

"Computer-aided Learning" kicked off the final day of AMTEC '78 as Wednesday's theme session when five papers were presented on this subject. Concurrent sessions followed, including panel discussions on 'Resource Centres for Canadian Schools' and 'Computer-aided Learning, as well as a case study of a co-operative project, and a basic media course in teacher education. Delegates were then guests at a NATIONAL FILM BOARD Sherry Party prior to the conference's closing luncheon. Florence Willson delivered her very positive evaluation of the Conference and those planning AMTEC '79 will do well to remember the case made for "bromo-seltzer". Mal Binks presented "Wonder Woman" to the group (complete with T-shirted costuming) in the person of Anne Davidson.

A happy group departed the luncheon for their respective activities Wednesday afternoon: a joint meeting of AMTEC Directors, or a study tour to the Provincial Library, or — in the case of many — a scurried attempt at catching homeward bound transportation. Displays were disassembled in record time. The convention floor echoed with inactivity. Except for the scheduled meeting of the AMTEC Board of Directors the next morning, AMTEC '78 was over.

All in all, AMTEC '78 was quite a success. Special mention, must be made of the Saskatchewan hospitality and the evident 'behind the scenes' efforts of the Conference Planning Committee. The attendance figures were gratifying, the conference organization was superb, and the Committee did, in fact, follow up on its promise of a "hassle free conference".

Another time. . . another place. . . another successful conference is in the planning: AMTEC '79, from June 17th to 20th, in Ottawa. Those planning AMTEC '79 assure us "we ain't seen nothin' yet. . .", so, in response, let's spread this word: "BE SURE Y'ALL COME!" ■



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# AMTEC Leadership Award — 1978

This is the second year of presentation of the Leadership award. Nominations for the award are made by members of AMTEC. The Awards Committee, chaired by Neil Nelson, Audio-Visual Co-ordinator, Etobicoke Board of Education, presented the names of prospective recipients to the AMTEC Board for approval in February.

The resumes which follow were submitted in most cases by the person who entered the name of the recipient into nomination. These are being reproduced essentially as they were submitted since in each case, a resume bears the stamp of the person who made the nomination.

A nominee is considered for the award if the following criteria are met:

- The nominee must have made an outstanding contribution to educational media in one or more of the following areas: local, regional, national, international.
- The nominee cannot be a current member of the AMTEC Board.

In addition to the above, the following guidelines will be followed in the selection of recipients:

- A reasonable geographical distribution of nominees across the country will be selected if possible.
- Names of nominees eligible for consideration will be carried forward from year to year.

## Recipients of the AMTEC Leadership Award — 1978

**Edward T. Armstrong** — Ted Armstrong began his career in education in 1929 as a classroom teacher. In 1934 he joined the Manitoba Department of Education as a teacher and course writer in the Correspondence Branch. While with the Correspondence Branch Ted also wrote mathematics courses for the armed services. In 1942 he was appointed Supervisor of Visual Education and Editor of the *Manitoba School Journal*.

With an inventory of some 50 titles in old, almost obsolete CNR silent travel films, 25 Eastman Kodak silent teaching films, a dozen 16mm ERPI (Edited Radio Pictures) sound films, about 2 dozen 35mm filmstrips, one filing tray, and an annual budget of approximately \$800.00, Ted began serving the educational community.

At the time of his retirement in 1971 Ted Armstrong had expanded the collection to some 1500 titles (7000 prints) of 16mm sound films and approximately 4000

35mm filmstrips and had increased the operating budget to approximately \$250,000.00.

During his 29 years of dedicated service Ted Armstrong made the Visual Education Branch of the Manitoba Department of Education a vital force in Manitoba's educational system.

In recognition of his leadership and contributions to his community Ted has also been awarded several honorary life memberships — Honorary Life Member, Valour Road Curling Club, 1964; Honorary Life Member, Manitoba Curling Association, 1969; Honorary Life Member, Past Presidents Association of Manitoba Curling Clubs, 1971.

**Gordon Upton McLean** — Born at Waterville, Carleton County, New Brunswick, June 10, 1919. Attended first a one-room rural school.

Graduated from Woodstock Grammar School — New Brunswick.

Obtained a Teacher's License at the Provincial Normal School.

Taught two years in New Brunswick schools.

Served four and one-half years in the Royal Canadian Navy Volunteer Reserve during World War 2.

Employed as a field officer with the National Film Board from August, 1946 until September, 1955.

Joined the Department of Education in September, 1955 as Audio-Visual Supervisor.

Became Director of the Audio-Visual Services for New Brunswick in September, 1967 until September, 1974.

Earned the degrees of B.A. from the University of New Brunswick, and M.S. in Education from Indiana University.

While with National Film Board, helped community groups and organizations use motion pictures to attain their objectives, and to know Canada better.

During the formative years of the film council movement in Canada, organized numerous film councils in New Brunswick and continued to advise and support this movement during its existence.

While with the Department of Education, trained pre-service and in-service teachers in the more effective use of all audio-visual media. Introduced a formal audio-visual course at the University of New Brunswick during the summer of 1966, and again in 1967. Carried out

courses for teachers in introductory production skills in Audio-Visual.

Served as a member of committees on school broadcasting for both the Atlantic Provinces and for Canadian School Broadcasts. Also worked as a member on the National Standards Committee in developing the guidelines for and publication of "Resource Services for Canadian Schools."

Served for several years as Member-at-Large in the Atlantic region on the Executive of EMAC — later a partner in AMTEC.

Retired from the Department of Education in 1974, and is presently working for Visual Education Centre as Regional Manager for the Maritime Provinces.

**Richard A. Morton** — Born and educated in Calgary. Received a Bachelor of Education degree from the University of Alberta.

Taught in one-room rural schools for three years.

Taught in the high schools at Hanna and Sangudo, Alberta for ten years.

In 1949 — began a career as a Radio writer and producer — Radio Station CJCA, Edmonton, Alberta.

In 1954 — appointed Supervisor of School Broadcasts, Department of Education, Province of Alberta.

1964 — promoted to Supervisor of Audio-Visual Services, Department of Education, Province of Alberta.

1966 — promoted to Associate Director of Curriculum in Alberta Department of Education.

1972 — became Planning Director for Educational Communications, Department of Education, Province of Alberta.

1973 — Director, Alberta Educational Communications Authority.

Dick was a member of the National Advisory Council on School Broadcasting, 1954-1966.

A member of the Council of Ministers Advisory Committee on Media, 1969-1974.

Member of the Council of Ministers Task Force on Copyright, 1976-present.

Member of Canadian Audio-Visual Association (CAVA) and was President of this organization, 1966-1967.

A member of the Educational Media Association of Canada (EMAC) throughout its life.

He is a member of AMTEC — Association for Media and Technology in Education in Canada and was its President, 1975-1976.

He promoted the first Canadian conference in Educational Media which was held in Edmonton and where AMTEC was formed in 1971.

He was on the Advisory Committee for the Audio-Visual Magazine distributed by Secombe House.

In 1969 and 1970 he was seconded to the Canadian Council of Ministers of Education half-time for one year to survey and explore ways provinces could co-operate in media endeavours.

He was President of the Edmonton Audio-Visual Association in 1966 and is currently again President 1977-1978.

He has been a member of the Canadian Advisory Committee on Sesame Street since 1975 and currently is Chairman of that Committee.

**Frank Edward Murphy** — Frank E. Murphy was born in Halifax, Nova Scotia on November 26, 1908. He attended St. Patrick's Boys School, St. Mary's College and Nova Scotia Technical College. Later, while employed by the Department of Education, he attended Dalhousie and received his B.A. degree.

In 1934 Mr. Murphy joined the Department of Education, Province of Nova Scotia, as an employee of the School Book Bureau, becoming Chief Clerk after a few years. In 1943 he was appointed Assistant Director of Visual Education for the Department; later Director and in 1959 was appointed Supervisor of Audio-Visual Services (now called Education Media Services).

During the war years Mr. Murphy served as Film Adviser to the Canadian Legion War Services in the province and also

acted as chairman of the Provincial Film Committee, National War Finance Committee. From 1943 until 1955 he was Regional Agent in Nova Scotia for the National Film Board in charge of the field staff operating the Rural and the Industrial Film Circuits. In 1944, with co-founder Mrs. Margaret Perry, well-known film maker, he organized the Halifax Film Society, serving as president and chairman of various committees during the lifetime of the society.

In the post-war years Mr. Murphy was instrumental in the formation of Film Councils and Film Purchase Pools throughout Nova Scotia until television made these organizations unnecessary.

He served for sixteen years as the Nova Scotia member of the CEA / NFB Advisory Committee until it ceased to function in 1967 when its objectives were absorbed into the overall authority of the Council of Ministers of Education, Canada.

Mr. Murphy retired in 1974 after forty years service with the Province of Nova Scotia.

**Cecil E. Wilkinson** — After having taught in Northern Ontario and in the City of Toronto, Mr. Wilkinson came to the Scarborough Board in 1954 as Principal of Terraview Heights Public School. From this position he was instrumental in establishing within Scarborough, in co-operation with the Ministry of Education, a 16mm film library, one of the first such to be established in Ontario. From a beginning in which Mr. Wilkinson was responsible for both the operation and the film library, and the running of a new elementary school, he proceeded to establish a strong audio-visual department within the Township of Scarborough. He was later given full responsibility for the operation of the audio-visual department and remained as its co-ordin-

ator until his retirement in 1969.

Mr. Wilkinson is recognized internationally as an authority on audio-visual instruction. For years he has lectured throughout Ontario as a member of summer school teams, as well as individual lecturing to professional development and federation days.

Mr. Wilkinson was recognized by D.A.V.I., the Department of Audio-Visual Instruction in the United States, when they presented to him their Pioneer Award for the great influence that he had had upon the development of audio-visual instruction as a methodology in education. As an author, Mr. Wilkinson has written countless published articles as well as a text book in audio-visual instruction. Mr. Wilkinson is an avid photographer and has contributed to many photographic shows. He was presented with the F.I.A.P. Award for his excellence in photography.

In the early days when the numbers of people working in the media field in Canada were very few, Mr. Wilkinson was instrumental in starting the Canadian Audio-Visual Association which held their meetings at the D.A.V.I. Conference each year. From this beginning he went on and has taken an active part over the years in the development of the subsequent organizations that represented media in Canada.

Even after retirement, Mr. Wilkinson has still continued as an avid promoter of audio-visual instruction in the educational field. He has been a member of the editorial teams of media magazines, as well as the consultant for many commercial firms who are involved in the production of instructional materials for educational use.

Few people possess the enthusiasm and dedication for media that Mr. Wilkinson has demonstrated throughout his lifetime. ■

## AMTEC '78 Media Festival

by Lou Wise  
for the Media Festival Committee

A total of 58 media productions were submitted for consideration for this year's Media Festival. Of these, the Award of Excellence was presented to two and the Award of Merit to 25 productions.

Thanks are extended to all those who

submitted programs — and congratulations to those who earned the awards.

It is our hope to provide access to these materials for others who may wish to see, to preview and possibly to rent or purchase copies. Toward that end, we

are listing them below by category and including a mailing address for each. If you wish to preview or simply to get further information, please write to the organization or person at the address shown.

## AMTEC '78 Media Festival Award Winners

TITLE	RUNNING TIME	SOURCE
<b>16mm Films</b>		
Confidence and Control	24 min. (MERIT)	Office of Audio Visual Services 214 Physics Annex University of Guelph Guelph, Ontario N1G 2W1 Att: Mr. I. K. Easterbrook
Ants: Hunters and Gardeners	10½ min. (MERIT)	National Geographic Society Educational Services 151 Carlingview Drive, Unit 5 Rexdale, Ontario M9W 5E7 Att: Mr. Albert Meyer
Chimpanzees	12 min. (MERIT)	National Geographic Society Educational Services 151 Carlingview Drive, Unit 5 Rexdale, Ontario M9W 5E7 Att: Mr. Albert Meyer
Heart Attack/Counter Attack	29:30 min. (EXCELLENCE)	Love Five Limited 124 Baby Point Rd. Toronto, Ontario Att: Mr. Jeremy Brown
Learning is Lifelong ... In Saskatchewan Community Colleges	16 min. (MERIT)	SaskMedia Corporation 1112 Winnipeg St. Regina, Saskatchewan S4P 3S3 Att: Mr. R. Brockhill
<b><u>3/4 in. Videocassettes</u></b>		
Strategies of Effective Teaching	28:45 min. (MERIT)	Dr. M. Orme Dept. of Psychology O.I.S.E. 252 Bloor St. West Toronto, Ontario
Cleansing and Shaping the Root Canal System	28:30 min. (MERIT)	Television Unit University of Manitoba Winnipeg, Manitoba R3T 2M2
Security Skills—Keys	8 min. (MERIT)	Canadian Corrections Staff College P.O. Box 638 Edmonton, Alberta T5J 2K8 Att: Mr. Ed Palibroda

TITLE	RUNNING TIME	SOURCE
Be a Good Boy Now	19:15 min. (MERIT)	Ontario Educational Communications Authority P.O. Box 200 Station 'Q' Toronto, Ontario M4T 2T1
Parlez Moi—Sol on the Telephone	9:35 min. (MERIT)	Ontario Educational Communications Authority P.O. Box 200 Station 'Q' Toronto, Ontario M4T 2T1
Investigating Sudden Death: A Team Approach	29:48 min. (MERIT)	ACCESS Alberta 16930—114th Ave. Edmonton, Alta. T5M 3S2
Schooling: Faces of Yesterday Childhood	14:30 min. (MERIT)	ACCESS Alberta 16930—114th Ave. Edmonton, Alta. T5M 3S2
Seismology	26:11 min. (MERIT)	Carleton University Ottawa, Ontario K1S 5B6 Att: Mr. Ross Mutton
Passe—Partout	28 min. (MERIT)	M. Louis Belzile Directeur, A/V Production Ministère de l'Éducation 1035, rue de la Chevrotière Quebec, Quebec G1R 5A5
Children—Creating Familiarity With Foods	25 min. (MERIT)	Mr. Jerry Millan TV Centre Humber College of Applied Arts & Technology Box 1900 Rexdale, Ontario M9W 5L2
Audio Tape Editing	17 min. (MERIT)	Mr. Jerry Millan TV Centre Humber College of Applied Arts & Technology Box 1900 Rexdale, Ontario M9W 5L2
A Personal View of Thoroctomy	12 min. (MERIT)	St. Clare's Mercy Hospital St. John's, Newfoundland Att: Diana Carl Medical Television Dept.
Annual Xmas Tape	26 min. (MERIT)	Dr. Wm. Hillgartner Instructional Communications Centre McGill University 845 Sherbrooke St. W. Montreal, Quebec H3A 2T5

TITLE	RUNNING TIME	SOURCE
Coaching in Volleyball—The Overhand Pass	22:32 min. (MERIT)	Division of A/V Services University of Saskatchewan Saskatoon, Sask. S7N 0W0 Att: Dr. Barry Brown
New Perspectives in Elementary School Physical Education	28:30 min. (MERIT)	Division of A/V Services University of Saskatchewan Saskatoon, Sask. S7N 0W0 Att: Dr. Barry Brown
Assisted Ambulation	22 min. (MERIT)	Dr. Wm. Hillgartner Instructional Communications Centre McGill University 845 Sherbrooke St. W. Montreal, Quebec H3A 2T5
<b><u>Sound Slide</u></b>		
Newborn Resuscitation	20 min. (MERIT)	Division of A/V Services University of Saskatchewan Saskatoon, Sask. S7N 0W0 Att: Dr. Barry Brown
Atomic Electron Structure	— (MERIT)	Mr. John Green Media Department Durham College Simcoe St. N. P.O. Box 385 Oshawa, Ontario L1H 7L7
Engineering Careers	20 min. (EXCELLENCE)	College of Engineering University of Saskatchewan Saskatoon, Sask. S7N 0W0 Att: Danielle Fortosky
Manufacturing in Winnipeg	Approx. 1 hr. (MERIT)	Instructional Media Services Department of Education 1181 Portage Ave. Winnipeg, Manitoba R3G 0T3
<b><u>Sound Filmstrips</u></b>		
Plant Propagation	— (MERIT)	Office of Audio Visual Services 214 Physics Annex University of Guelph Guelph, Ontario N1G 2W1 Att: Mr. I. K. Easterbrook
Monitor Kit—P.E.I.	8:10 min. (MERIT)	Mr. Tom Rich Media Co-ordinator Department of Education Box 2000 Charlottetown, P.E.I. C1A7N8

# REVOX A77

## Professional Tape Recorders

### A77 Professional



### A77 S.L.S.

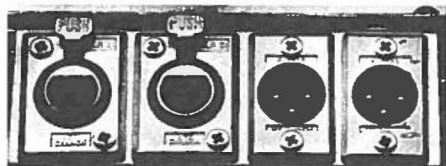


### A77 Autostart (Vox)



#### Inputs

The A77 professional recorder is available in 7 $\frac{1}{2}$ /15 IPS half & full track configuration and is fitted with Cannon XLR connectors on inputs and outputs. Inputs are balanced, line level and require +8dBm for full tape modulation. The input levels are preset and no front panel adjustments are provided.



The outputs have independent line amplifiers providing a balanced +8dBm preset line level. In addition an adjustable output is provided to feed headphones or unbalanced equipment. Optional plug in 8 watt amplifiers are available for the half track machine to drive external speakers or the 4 internal speakers included in the suitcase version.

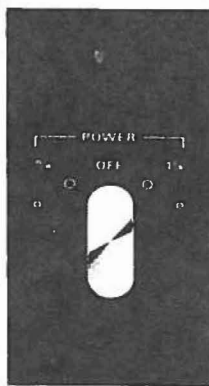
#### A77 S.L.S.

The A77 is available in a super low speed of 15/16 & 1-7/8 IPS. With the A77 super low speed 15/16 IPS version Revox reliability is now available for all logging applications. Over 12 hours can be recorded in one pass on two tracks, with 3,600 feet of tape. With a modification to the end of tape lamp circuits, two machines can be linked to provide automatic logging for 24 hours.

**SPECIFICATIONS**  
Frequency Response  
Wow and Flutter  
Recorded Peak Level  
Distortion at  
140NWB/Revox 601 Tape  
S/N ratio, unweighted  
Erase Efficiency

15/16 IPS  
60-5000 Hz+2-3dB  
.3%  
140 NWB

Less than 3%  
Greater than 46dB  
Greater than 68dB



The A77 Autostart machine automatically goes into the record mode in the presence of a signal. It will continue to record for up to 7 seconds (variable) after the signal has been removed and then stops. (Trigger sensitivity is variable for each channel). The A77 Autostart is ideal for any operator unattended monitoring application where good recording quality (7 $\frac{1}{2}$  IPS) is required. For example Radio stations can use this Revox machine to receive network news feeds automatically. Security firms who must record telephone calls can do so backed up by Revox dependability.

The A77 Autostart has the same fine specifications as the regular model 11102 (a push for Manual button disables the auto start circuitry for normal operation) and is available in quarter and half track formats at 3 $\frac{3}{4}$  and 7 $\frac{1}{2}$  IPS.

**STUDER REVOX** CANADA LIMITED

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Circle #99 on Reader Service Card

# AMTEC '78

## Special Interest Group: Utilization Consultants

by Gerald R. Brown  
Chief Librarian  
Teachers Resource Centre  
Winnipeg School Division No. 1  
Winnipeg, Manitoba R3A 0J4

At the Tuesday a.m. breakfast, fourteen participants shared their concerns about work in the field. General discussion ensued, and recommendations as noted were drawn. An oral report was made to the Joint-Executive meeting on Wednesday at 3:30 p.m.

The following issues were considered:

1. Many teachers seem to require guides, manuals and learning packages, including tests, work guides, etc., to make good use of media resources. Some areas provide more support materials, or references thereto, prepared by central consultant staff; others facilitate teachers working together to develop aids.
2. The relationship of teaching strategies to methodologies are generally implied by the medium. The quality and quantity of field testing of new materials before marketing is a concern. Some participants felt that commercial distributors were not sufficiently sensitive to user needs, both for the feedback of production information and for information about support resources.
3. *Teachers* guides prepared in advance by the producer has merit. Learner verification is needed; with relevant revision based on the feedback. Others felt this type of material was best *designed locally* by District personnel.
4. The attitude that it is legitimate for AV materials including 16mm film to be used *by individuals* still needs to be fostered. Many teachers still use AV materials for whole class presentations. Similarly, using sections of, rather than whole item, needs to be emphasized. There is no great mystique about obtaining information from non-print sources.
5. Concern for the *kind of training* in material use both at college level and at district level was expressed by several people. The need for greater awareness of integration of print and non-print resources, and how to use it as part of regular teaching is a priority. University required courses are possibilities to some extent, while upgrading of certification requirements

may motivate others to come to grips with current media formats.

6. A clearinghouse of ideas should be considered. Some are shared by AMTEC conferences, while others are described in the *Newsletter* and *Media Message*. U.C.'s need to write about what is happening in their districts. Exemplary and innovative activities and projects should be scheduled in concurrent session in program for future conferences. Sharing in this way would establish comradeship among U.C.s across the nation. All were urged to use "Feed Forward" with Wayne Blair in *Media Message*.
7. District level training projects and upgrading was discussed. Some U.C.s have curriculum development responsibility; while others give priority to raising user awareness of resources available through efficient confirmation and access procedures. Other consultants were heavily into instructional development approaches which require localized planning with teachers and other content-area consultants. The immersion-in-media approach was described by B. Angel.
8. Research concerns are also high on the list. Who is doing research? Where? What? How is this information and the research results being transmitted (in theory and in practice) to the field.  
Similarly, where are the media courses taught? By whom? — especially — Visual Literacy for elementary children; and Perception education.
9. Promotional material is a need in many areas. It is important to promote *media as a vehicle*, as a means of teaching — "these are your tools."  
U.C.'s need to establish comradeship with other teachers as part of the total educational team.
10. Awareness of Resources was raised as a concern. Many are not known because they are elusive, or harbored away by persons who feel their work is not outstanding.

(1) The function of the Centre for Research in Libraries was reviewed. The project co-ordinated by Helene Rothwell, at the University of Toronto, with respect to Canadian filmstrips was noted.

Can AMTEC assist in this project through Financing, Publicity, or Information?

(2) The place of PRECIS as an indexing tool was mentioned. Agreement on the need for standards among reviewing agencies was confirmed. Could AMTEC facilitate a national or regional meeting on topic to inform members of its potential?

(3) The work of Colin Neale of NFB was mentioned. Contact your local NFB office for details.

### 11. Next Conference — Recommendations.

- That a breakfast meeting be scheduled again for the Ottawa conference.
- That the meeting be located in a space more conducive to group sharing.
- That a chairperson be named early to contact 1978 attendees to identify specific areas of concern, and to report any developments related to the above 10 concerns.
- That there be some continuity in chairpersonage from year to year, and that if possible, the chairperson be named by the group before the meeting concludes.
- That notes from the meeting be distributed to all participants, to the Executive and to the editor of *Newsletter* and *Media Message*.
- That a proposal to publish a directory of Utilization Consultants be prepared and forwarded to the National Board of Directors; and that they be urged to proceed with such a project as speedily as possible.
- That serious consideration be given to facilitating AMTEC membership involvement in the implementation of the ideals philosophy defined in *Resource Services for Canadian Schools* during the coming year. ■



# Cable Television In Extension Education\*

by Dr. Mark W. Waldron  
Director, Office of Continuing  
Education  
University of Guelph  
Guelph, Ontario



\*This is a transcript of a presentation which was originally made at the 1977 AMTEC Annual Meeting and Conference held at the University of Guelph, June 5-8, 1977.

## Introduction

Cable television has served many Canadian urban and suburban communities since the the 1950's, but very little use has been made of community cable systems as a means of delivering continuing and extension education. This is especially surprising since one channel in each community has been specifically allotted for community access programming. The facilities have been in operation for many years but little educational use has been made of this new means of communicating to a large number of adults.

The University of Guelph has been involved, in an informal educational sense, in the Guelph cable television system through the presentation of "Spotlight on the University of Guelph" by the University's Information Office. These half-hour long programs presented interviews with faculty, visiting professors and students. The productions were not sophisticated, two or three people sat before a camera and presented a "talk-show" format. The programs were transmitted several times weekly, at various times of the day. After being a guest on one of these programs, I was amazed at the number of people who indicated that they had watched the program! This convinced me that com-

munity cable television could have a major role in the delivery of continuing education.

## A Case Study

With the interest of Dr. G.A.B. Moore, Director of the University's Audio Visual Services and with the financial support provided by the University for program development in continuing education, it was decided to develop two courses using the community cable system. The objectives were to test the capability of a community cable system in complementing the classroom discussions and to explore this means of delivery in extending the university into the community.

The term 'continuing education' refers to the large number of various non-credit adult education programs covering the wide spectrum of academic interests of the University and using such techniques as traditional lecture-based courses, workshops, seminars and conferences as a means of providing the learning environment. There are no entrance requirements, exams or certification in most continuing education courses, they emphasize the "learning for learning sake" approach to education.

Before deciding on the subject matter and production approaches, several key decisions had to be discussed: the level and type of costs involved in such a project, the size and nature of the budget required, the access to quality production facilities, the use of colour versus black and white production capabilities and the various means in which the cable transmission could be incorporated as a complement to the classroom learning environment.

It was surprising that the selection of the subject matter was relatively easy. Several professors and various academic departments expressed an initial interest. It was Professor Henry Wiseman of the Department of Political Studies who suggested a six-part television series titled "Canada, Quebec and the Future of Confederation" to complement a proposed continuing education course of the same title. The subject matter couldn't have been more timely. In addition, the Department had a number of professors

with a keen interest in the national unity issue. With the availability of excellent colour production facilities, the enthusiasm of the Guelph cable television distribution system and the eagerness of eight professors, it was difficult to not proceed! Time — lack of it — was the only problem.

It was then November and the series would have to be completed by January. The various faculty members worked many additional hours to develop program themes and the role of each individual in the series.

The six half-hour programs rotated the use of the academics, each program had a moderator and three or four faculty members discussing the topic and using the panel discussion technique. The topics encouraged very vigorous discussion and were sufficiently dynamic that there was no need for supporting visual materials. The program title of "Canada, Quebec and the Future of Confederation" was subdivided into six topics: Canada in Crisis, The Quiet Revolution, Cultural and National Survival, Quebec Demands — Canada Responds, Canadian Unity — What Went Wrong? and Today's Problems — Tomorrow's Future.

The six programs were prepared over a period of three weeks in January and early February using the colour production facilities of the Grand River Cable Television system in Kitchener-Waterloo. The programs were transmitted at various times of the week: mornings, afternoons, and Tuesday evenings at 8:00 p.m. on both the Guelph and Kitchener systems.

The continuing education class met with forty-six participants on Tuesday evenings to watch the programs and have small group discussions. Through the use of this technology, it was possible to have several faculty members present their ideas to the class without actually being in the class. The half-hour format allowed several faculty to present their views in a very succinct and explicit style. Many other people saw the programs but did not register for the specific course. The videotapes were also retained for repeated use. The course participants were, in general, enthusiastic about the course format. Some indicated to me that they

particularly appreciated the opportunity to see the telecasts prior to the actual class. Because of the lack of time, no intensive, formal evaluation of the course was undertaken. Informal evaluation indicated that the course format had been very useful and successful.

Concurrently, a second television series was also produced. In this case, a Guelph citizen, Mr. David Scott, proposed a series concerning "Options for the Future of Mankind". While it was proposed as a traditional course, it was felt that the subject matter dealing with moral issues in the future use of resources, population growth, food production, urbanization and new lifestyles, would have widespread community interest.

It was decided to present the series on cable television as the Future of Confederation course but rather than having a class in the traditional sense, we would work with some of the churches in organizing discussion groups in churches and homes. The Guelph Ministerial Association agreed to co-operate in setting up the groups and designating group leaders.

This idea is not new to Canada, it is basically the National Farm Radio Forum idea using cable television rather than radio. As with Farm Forum, printed study guides were prepared for each program, questions for discussion were prepared and group leaders were helped to prepare for their roles.

The series consisted of five half-hour colour programs using such production formats as debates, interviews, panel discussions with considerable film and graphic visual support material. The fifth and final program was a "feedback" program in which the group participants questioned a panel. Through the use of portable videotape equipment, these questions were collected in the various discussion groups during the fourth session and were then edited for use on the final program.

The participants read the study guide prior to watching the program and the following discussion. Responses to the questions were summarized and the results were distributed to all the groups. There were one hundred and twenty-four participants in the course, most groups met in churches with two groups meeting in the Guelph Correctional Centre.

In this course, a more formal evaluation was undertaken with the results giving an indication of the nature of the clientele for such a course. It was found that 45% had a high school education and that 32% had at least one university degree. 33% were between the ages of 31 and 40

with 21% between the ages of 41 and 50. 61% had never participated in a continuing education course before! 77% became aware of the course through their church information program. Not one reported having seen paid newspaper advertisements or a newspaper article. A special brochure was cited by 23% as their primary means of becoming aware of the course.

The general reaction to the course format was very positive as indicated by the following quotes from the evaluation forms:

*"I would like to commend you on your efforts in presenting this course. In my opinion, you have hit on a winning combination, local television and small group discussion. Cable television is quite a different medium than network channels. It is on the scale that people can relate to and participate in. Small group discussions are superior to the lecture methods for the modification of opinions. When a person gets a chance to speak his or her thoughts and have them tested in the arena of debates, the change in viewpoint is often dramatic and the motivation for learning is remarkable."*

*"This past Sunday, our group presented our regular worship service to our congregation including a symposium based on the course. Twelve group members participated in various aspects of the service. I have the feeling that we have just begun to assimilate what we have learned. Many of us will continue to be changed and basically it is because of the concentration your course provided for us."*

*"Ordinarily, I don't go to church services but I've just been to one that was the most enriching spiritual experience that I've ever had, and the clergy weren't doing it, these were people from the congregation."*

### **The Results**

In the case of both courses, there were significant follow-ups to the course activity. The Canadian Unity series was a stimulus to the organization of a community group titled "Option Canada". This group, in turn, organized a town meeting with guest speakers, music and dance as a recognition of the importance of debate and discussion about national unity. Several thousand people attended the town meeting and became involved in the "Option Canada" group. The television course, the development of the unity group and the involvement of thousands of citizens indicated that a university-community liaison can work very effectively.

Both television series have been repeated several times and plans are being made to re-offer the courses.

### **The Issues**

There are of course many issues involved in using cable television in continuing education. There is the concern for cost since sophisticated professional productions are expensive. The facilities and distribution systems were both available at no cost which meant that the basic expenses consisted of paying the faculty, developing and printing study guides and purchasing videotapes. There is the possibility that the videotapes could be sold for use by other universities and by other cable television systems. If the series are sold, then the question of local community content also arises. I expect that with a local introduction such programming could be categorized as local content to satisfy federal regulations.

There is also the issue of copyright and performance fees for the professors. The University holds the copyright and is very specific about what can be done with the videotapes. There is, of course, no guarantee that copies have not been made either through dubbing or off-air recording. The faculty members were paid once and were interested in co-operating on the project. As yet, no formal arrangements regarding fee payment and residuals have been made. That is a major issue and one that will likely become increasingly important as community television becomes more developed as a means of delivery for university courses.

### **Conclusions**

The experience of producing and presenting these two continuing education courses on cable television proved that this technique can be a valuable additional means of presenting courses. Cable television was found to be a valuable means of complementing classroom discussions as well as an efficient means of extending the university into the community.

Not all courses will be adaptable to this form of technology, not all learners will choose this technique as the one that is most suitable. For courses that are very topical, for subject matter that is highly visual, for learning experiences that use discussion techniques, then community television provides a creative new way of approaching learning. Based on our experience, cable television is a very reasonable, economical, practical, interesting, informative and innovative means of extending the university into the community. ■

# A Review of Some Motivational Literature As It Applies To the Library

by Robert C. Barnett, Ed.D.  
Faculty of Education  
Nipissing University College  
North Bay, Ontario

In 1959, Frederick Herzberg of the University of Pittsburg interviewed two hundred engineers and accountants. They were asked to recall specific incidents in their work that made them feel particularly good or particularly bad, and what effect these feelings had on their attitudes and their performance. Generally speaking, Herzberg found that good feelings were associated with events that indicated they were doing their jobs well, whereas bad feelings were associated with how they were being treated.

These studies led Herzberg to a theory of motivation — the Motivation-Hygiene Theory (1966). Workers seem to have two contrasting sets of needs:

- 1) **Motivators:** Motivators make a person happy; they improve one's attitude toward a task. Feelings of satisfaction and increased productivity usually result. These feelings are long-lasting and are always present within the work itself.
- 2) **Hygiene Factors:** When hygiene factors are at a low level they make people unhappy. They give rise to feelings to dissatisfaction and tend to decrease productivity. These feelings are not long lasting, and are usually present within the environment rather than the task itself.

Herzberg suggests hygiene factors consist for the most part, of company policies and administration, supervision, working conditions, money, status, and security. When these needs are not met, an individual can feel that the situation in which he works is unfair and dissatisfying. As a result, he can become disinterested, passive, and perhaps even antagonistic. Hygiene suggests prevention rather than a cure; attention to these factors will prevent a man from feeling unhappy, but they will not make him happy.

Motivators are not the opposite of hygiene factors. Herzberg found that they are concerned with the work itself rather than the environment-achievement, challenge, recognition, responsibility, personal growth, advancement, autonomy. While the absence of motivators will not cause workers to become necessarily

unhappy, their presence can cause people to work far beyond their normal level of productivity, to be creative, and to enjoy a feeling of high job satisfaction.

A library assumes a responsibility to satisfy motivation and hygienic dimensions of the contract it enters into with librarians. It should be stressed that attention to hygiene factors will not automatically make an employee happy, rather it will prevent him from being unhappy. There exists for the librarian, usually reinforced by some set of codified standards of a professional association, an acceptable level of hygienic conditions. An adequate salary, job security, enlightened administration policies, tolerable working conditions, and compatible co-workers are necessary provisions for the employee before he can even begin to think of the professional dimensions of his role as a librarian. Satisfying hygienic

needs brings the level of job satisfaction to zero, for they represent a replenishment need that goes back to zero when satisfied. Fig. 1 suggests that attention to hygienic needs by the administration, makes it possible for the librarians to begin to contribute positively to the organization.

Pigors and Myers seem to substantiate the essence of Herzberg's theory by stressing the following:

- Motivation comes from inside each individual.
- When a need is satisfied, it is relatively quiescent.
- The whole individual is motivated not just a part of him.
- Frustration of basic needs makes a man sick.
- Basic needs are organized in hierarchical levels. The greater its power to give enduring satisfaction.

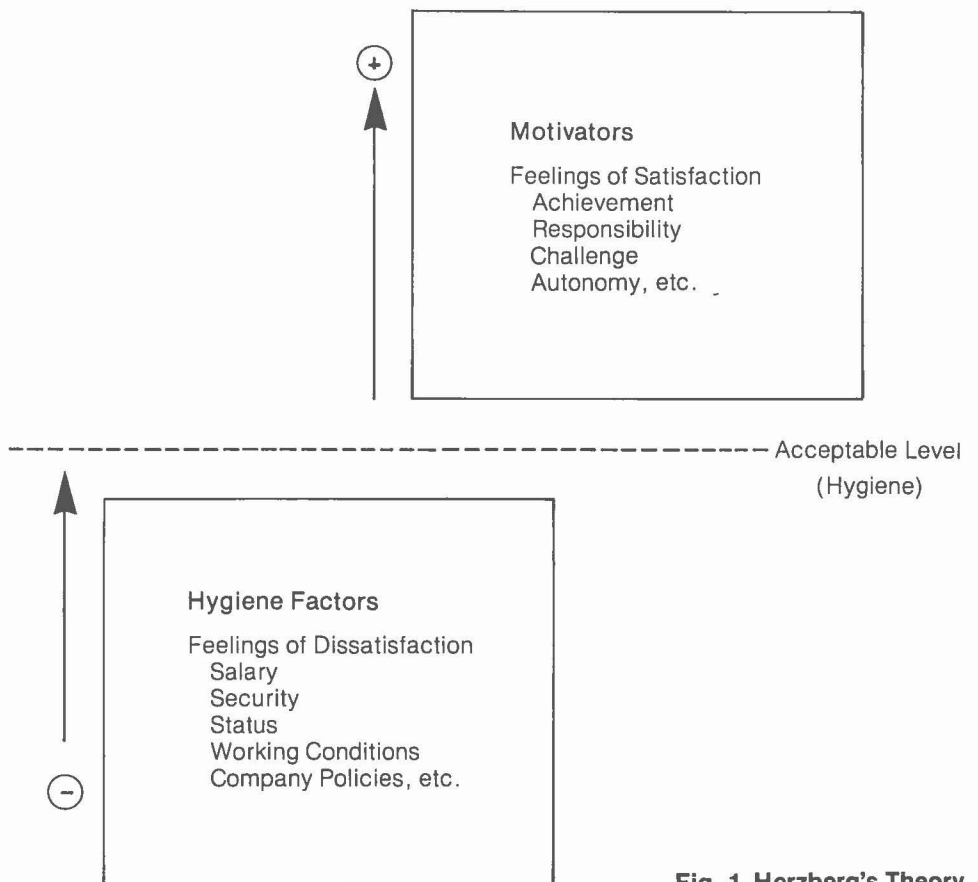


Fig. 1 Herzberg's Theory

Williams also characterizes motivation as "an exchange between the individual and his social environment". He says social motivational systems define their rewards for acceptable individual behavior in terms of "payoffs" resulting from desired behavior. The payoff, he says, is in "power pay" (responsibility), "authority pay" (promotion), or "status pay" (skill) — definite Herzberg motivators.

Notice how Herzberg, Williams, and Pigors all downplay the importance of money as a powerful motivator for occupational performance, yet people still believe money is very important. The employee may think he is working for it and the manager may think he is using it to get the employee to work, but both are only partly right. To understand the situation better, particularly if we wish to manage motivation or behavior, we must penetrate beyond the money itself and consider what it really represents to employer and employee.

There are at least three reasons why man talks as if money were an end in itself. In the first place, no idea is more deeply entrenched in contemporary psychology than the notion that in the end all learning is based on a few simple material rewards, such as food and water, and that all other rewards are secondary, getting their motivating value from learned association with the primaries. Money obviously falls in the secondary category.

Most managers are also highly achievement oriented. They are strong believers in steeply increasing financial rewards for greater accomplishment. Obviously, believing in more pay for more work is simply not the same as saying that more pay will lead to more work. Managers seek financial reward, not for its own sake as taxes increasingly reduce the incentive, but because it tells them (and others) how well they are doing. Managers believe money is important in motivating others because they mistakenly think it motivates themselves.

The third reason why managers keep coming back to money as a way of motivating people is because at the practical level it is the one thing they can manipulate rather easily. They may listen patiently to the psychologist who seeks to convince them that money isn't important for its own sake, but then what can they do to change those other psychological factors which are supposed to be more important? Payment plans are real and manipulative. Plans for dealing with psychological factors often seem nebulous.

In summary then, money is a treacherous tool for managing motivation because it is deceptively concrete, tempting many managers to neglect variables in the work

situation and climate that really affect productivity.

Traditionally, the librarian has not been attracted to the profession by monetary rewards. The increasing trend toward unionization, the acceptance of the master's degree for certification, the faculty-staff debate at university libraries, and the increasing number of young, highly qualified library students all suggest that the minimum acceptable level of financial compensation can no longer remain low.

I do not need to stress the obvious that job satisfaction cannot be a negotiated item. Industrial psychology has long since known that and Herzberg's theory is a leading exemplification of that principle. Most librarians are not in a position where collective bargaining is the usual course for the settlement of hygienic needs, so it is incumbent on the administration to budget for the provision of the satisfaction of such demands. This is probably an increasingly difficult thing to do in these days of inflation. The dependency of most libraries on tax provided income makes librarians very susceptible to revisions in society's priorities.

Let us assume that the administration and the employees are able to arrive at a mutually acceptable agreement on hygienic demands. The library has a further responsibility. There is little point in hiring highly trained professionals unless you exploit their professionalism. Administration in the style of McGregor's Theory X that realizes the responsibility, creativity, self direction, and potentialities of librarians and encourages development of these traits seems to be in order. Librarians generally have an advantage here. Usually libraries are administered by a librarian who has advanced to her administrative position by displaying the desirable qualities mentioned above. The library is an agency heavily involved in human interaction. So much of the tax-paying public's concept of the library is a result of the client's dealings with the librarian. Whether the librarian was motivated or not (and showed it) is vital.

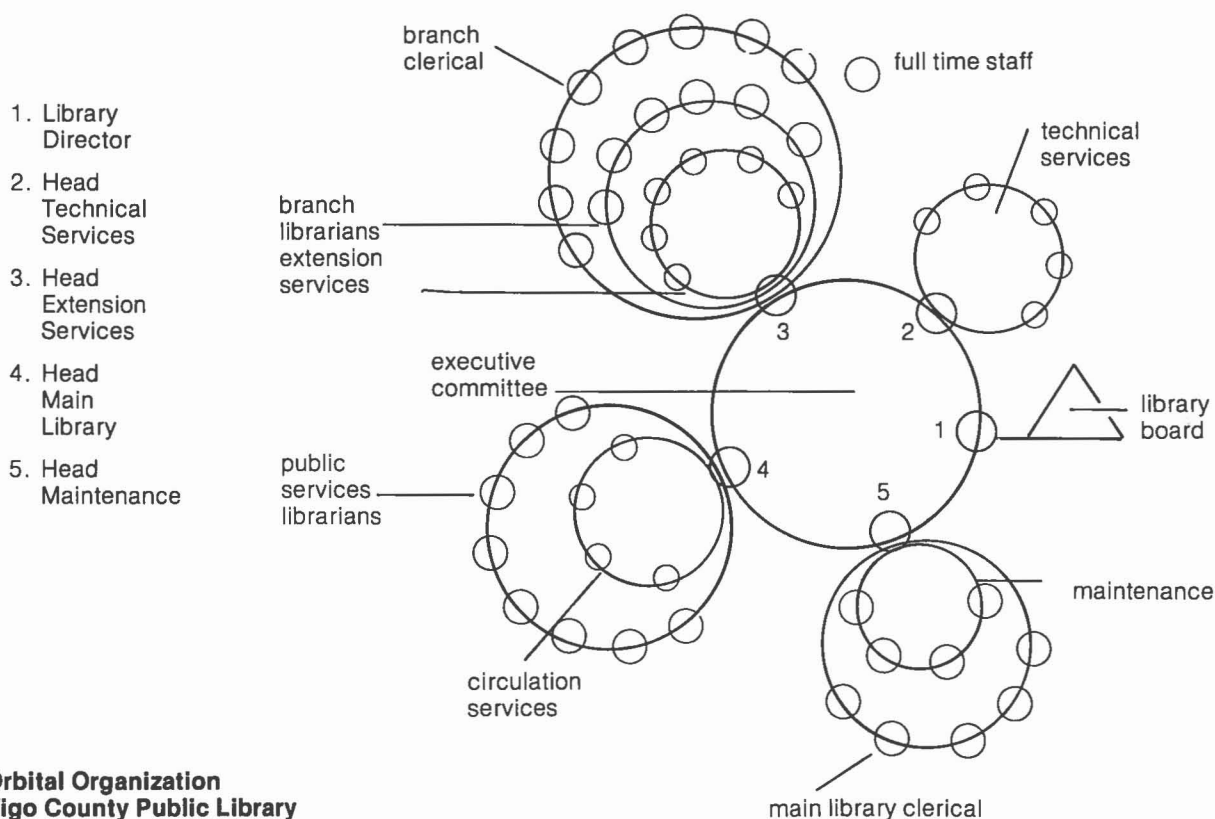
The key to motivation factor satisfaction seems to be administrative decentralization. A decentralized administration accepts the fact that the library's success is dependent on the librarians and the administration, not the administration alone. This demands that the librarians, including the administration, pay more than lip service to the professional rights and responsibilities that were stressed in graduate school.

Wilder believes that the professional librarians are growing restive under the business requirements of modern libraries. His solution is simple — hire a

business manager, trained as a business manager not a librarian, and make her a professional component of the staff. As an aside, Wilder suggests that the term "paraprofessional" be forbidden in libraries as he believes the desire to keep the libraries "pure" has resulted in inefficient library administration and frustrated librarians by insisting on certification over business expertise in administration. Librarianship should concern itself with book selection, collection development, and information systems, not clerical functions, budgeting, and maintenance. He recommends that librarians should concentrate on two main roles — reference and subject collection specialists. Only fifty percent of a reference librarian's time should be spent at a desk, research and personal development should receive equal time.

He mentions Indiana University's move to subject specialist librarians as a definite professional advance. These specialists, be it in children's literature, fiction, medicine, or what have you, should have sole responsibility for book selection and service in her area. Professional librarians will then be responsible for the discovery, preservation, application, and dissemination of knowledge.

While I find myself in basic agreement with Wilder, I feel that the service dimension of the library organization must receive stress as well as administrative efficiency. A very interesting proposal is Howard's Orbital Organization. Basically Howard's model (see Fig. 2) is a motivational model. "having a piece of the action, having some input into what is going on, and thereby having a stake in the outcome" — these are motivators. Howard organizes every employee into orbits based on job specification. Each member has equal opportunity for input and consensus is usually demanded. The head of each orbit sits on the executive committee. Here the input from each orbit is assessed and library policy arrived at. Howard's concept might work at Vigo County Public Library with fifty-two employees and Howard as the director, but surely it would break down in a larger organization or in a situation with a leader of lesser qualities than Howard. Having a piece of the action does not necessarily lead to satisfaction; precisely the opposite can happen. Frustration from being unable to arrive at decisions, frustration from being in a minority position, frustration from the internal politicking that goes on in any group — this could be the result. Howard's concept is worthy of study because it combines service and administrative dimensions, and involves professionals in professional decision making. In Herzberg's terminology, it is both hygienic



**Fig. 2 Orbital Organization  
Vigo County Public Library**

and motivational.

Motivation in the library must come from the nature of the task and the individual's attitude to the task. Each employee, professional or not, has freely chosen to work in the library because it provides an opportunity for hygienic and motivational satisfaction. It is the responsibility of the library as an organization to meet the hygienic needs. It is the responsibility of the library as an organization to provide motivators, but it is the ultimate responsibility of the individual to respond to the

motivators and provide the professional services for which the library was created.

#### Bibliography

1. Herzberg, F., Mansueti, B., Snyderman, B.B., *The Motivation to work*, New York: John Wiley, 1959.
2. Howard, E.H., "Beyond Participative Management: The Orbital Organization As I See It", *Focus On Indiana Libraries*, 27 (2), pp. 58-62.

3. McGregor, D.M., *The Human Side of Enterprise*, New York: McGraw-Hill, 1962.
4. Pigors, P., Myers, R.A., *Personnel Administration*, New York: McGraw-Hill, 1965.
5. Wilder, D., "Management Attitudes; Team Relationships", *Library Journal*, 94 (3), pp. 498-502.
6. Williams, W., in Dubin, R. (Ed.), *Human Relations in Administration*, Englewood Cliffs, N.J.: Prentice-Hall, 1968. ■

## Resource Centre Assessment A Speech Presented in Sarnia, 1978

by Doris Pauline Fennell  
Education Officer, Ontario Ministry of Education

The 1960's was an era of rapid growth and expansion in school libraries. Those of us who worked in school libraries during this decade saw the birth of elementary school libraries and the gradual evolution in secondary schools from book collections, selected mainly to

support such subjects as English and History, to large multi-media resource centres.

I do not need to remind you that we are now in a period of tight budgets, rising costs, decreasing enrolments, and retrenchment in school programs. Cuts

must be made in educational spending. It therefore, becomes necessary for all of us involved in education to examine what we are doing so that we can cut back or eliminate those tasks or services that are not essential, and can divert our efforts, time and money to maintaining those that

are necessary for high quality educational programs.

It is not an easy task to assess the effectiveness of the school library resource centre in the total educational program of the school. Teacher-librarians tend to believe that libraries are necessary to quality education. There is, however, no empirical data backed up by extensive research that proves, without a doubt, that a school library staffed with a well-qualified teacher-librarian does make a difference to the total educational program of a school.

Nevertheless, this does not mean that it is a useless exercise to try to assess the effectiveness of the school library resource centre in the support of the school's teaching and learning activities.

It is relatively easy to examine *potential* for service in terms of physical facilities, staff, and learning materials. Although this does not tell much about the effect of that resource centre on the school's program, it does tell a great deal about the potential or ability of the centre to support the school program.

Any complete assessment of resource centres services needs to start with such factors as:

- **Physical facilities** — in terms of space for housing materials, space for student and teacher use, and space for preparation of materials. Location and accessibility to teachers and students is also significant.
- **Resource Materials** — quantity and quality of print and non-print materials and relevance of these materials to the school curriculum is important. Annual budget for materials is a good indicator of the resource centre's ability to provide relevant up-to-date resources and to meet changing curriculum needs.
- **Staff** — in terms of numbers, responsibilities and educational qualifications, enters into any examination of potential for service. Can a collection of materials really be called a library resource centre unless there is a well-qualified teacher-librarian present to provide the services that makes this collection relevant to the teaching and learning activities of the school?

Although any comprehensive assessment of a school library resource centre will need to look at physical facilities, resource materials, and staffing, the most important part of the evaluation, as well as the most difficult, is to assess the impact of the library resource centre on the educational program of the school. In other words, would teaching and learning activities suffer if the library resource centre ceased to exist? Would it make any difference if there were no teacher-librarian in charge of the centre?

School budgets today simply cannot be

stretched to support programs and services that are not essential to quality education. If the school resource centre and the school librarian do not make it possible for teachers to teach better and students to learn better they have no reason to exist.

The winter 1974 issue of *Moccasin Telegraph* was devoted to the topic of evaluation of school library resource centres. John Wilson, as guest editor, made the following comment: "Fortunately, the idea that self-evaluation is the only kind that ever changes anyone, is winning acceptance and is being encouraged in education".

This does not preclude seeking advice, comments, and assistance from knowledgeable persons from outside a particular school or system who may have new insights and ideas that can increase the validity of the assessments. The significant factor here is that if an evaluation of a school resource centre is going to lead to change or improvement, the school staff and students should have a part in the assessment. Unless an evaluation exercise does lead to change it has little value.

In many schools difficulties arise when the teaching staff is involved in assessing the library resource centre. Ideally, teachers are first of all involved in determining the goals or objectives of the resource centre, and then, in determining services which will most effectively meet these goals. Evaluation, at a later stage, provides opportunities for teachers, school librarians, and students, to examine the degree in which the stated goals are being realized.

At present many teachers have limited expectations for the school library resource centre. Teacher-librarians and media specialists have generally done a poor job of communicating with teachers. We assume teachers know what to expect from the resource centre.

The role of the teacher-librarian has, likewise not been clearly articulated. Try asking teachers, principals and school administrators what a school librarian does. Most frequently the answers will reflect tasks related to acquisition, organization, and circulation of resource materials, to introducing book materials to children, and to teaching something called "library skills". Rarely is the teacher-librarian's role perceived as working with teachers in planning instructional units. This however, is the real justification for having a qualified teacher-librarian in charge of a school library resource centre.

I recommend to you an article by Marc J. Rosenberg in the February 1978 issue of *Audiovisual Instruction* entitled "What is the School Media Specialist's Role".

This article clearly distinguishes curriculum development and instructional development. Teacher-librarians should know the principles of curriculum development, but let's not pretend we know such things as the content, concepts, principles, and ideas connected with any particular subject discipline. (No science specialist is going to ask me to plan content for any particular part of a science program).

What the teacher-librarian / media specialist can do, and should be doing, is working with teachers to, as Rosenberg says, "create the most effective means to arrive at curricular ends." This is and must continue to be the major role of the teacher-librarian.

Teacher-librarians need to stop talking about "my library program" and instead become involved with teachers in developing effective teaching and learning activities that affect the total school program. This is not easy.

The concept of a library or media "program" is largely misunderstood by persons in education other than teacher-librarians. In fact many teacher-librarians are possibly unsure of what this means.

Public librarians offer special "programs" for children on Saturdays and school holidays to encourage public library use. The role of the school library resource centre is not the same as that of the public library. The objectives of the school library and the role of the school librarian must be clearly related to the overall objectives of the total school program. There cannot be a "library program" as something separate or apart from the educational program of the school. Unfortunately this is often not clearly understood by school administrators and the general public. I recommend you to an article by T.E. Giles, Associate Professor of the University of Calgary Faculty of Education, that was published in *Ontario Education*, March / April 1977, entitled "The Library is for Users". Mr. Giles' basic premise is that "The empires that have been built in the "public" library domain and the "school" library domain could be fused into one organization that provides library service for users". He claims "such a dichotomy has outlived its purpose".

When we talk about library programs many teachers and school administrators have the concept of special activities provided by the school librarian that are unrelated, or only superficially related, to what happens in the classroom. In other words, the library activities may encourage children to read, may entertain them, and may provide resources to support classroom programs. The library is not generally perceived as being vital to the reading program or to any other content

area such as mathematics, history, science, or geography, that is taught in that school.

Teacher-librarians need to emphasize and to demonstrate their contribution to the total educational program of the school. In order to survive in the face of cuts in educational spending, teacher-librarians must become essential in quality education.

I recently read an article in the Durham County *Librarians Newsletter* written by Mr. Mervyn Everall, principal of Lake Vista Senior Public School. Mr. Everall says:

*"The first conclusion that I was forced to come to was that many principals and some senior board officials do not share my view that the resource centre is the centre of the school program. When staff cuts are made in order to meet p.t.r. requirements, the librarian is seen as the most obvious person to begin with. . .*

*The librarian stands alone against the principal, and the teachers are more concerned about class size than library time. . .*

*If we believe that reading and research are vital to the overall education of children, we should be willing to put the money and the manpower (womanpower) where it belongs. We should not continue to say we think the library is important if we do not believe it."*

If I seem to have wandered from the topic of assessment of library resource centres, I really have not. Assessment of school library resource centres can be the means by which teachers and teacher-librarians can develop better communication.

There is, however, little value in asking teachers to assess the effectiveness of school library services until they know and understand what the library resource centre can and is able to contribute to the school program.

A number of questionnaires which have been used with teachers to ascertain their opinion of library services have uncovered some rather disturbing facts. Many teachers do not know what services the school library is providing or even what services they should expect a school library to provide.

The most recent issue of *Media Message* describes a survey conducted in British Columbia to find out what services were

being offered by resource centres at the district level. Teachers and school librarians were asked to respond "yes", "no" or "do not know" to a list of possible services and then to indicate whether or not they agreed that this service should be offered. One of the conclusions was that "many British Columbia teachers do not know what services are available to them through and from their district resource centres".

I suspect this situation is not unique to British Columbia. I also imagine that many teachers are as poorly informed about the library resource centre in their school as they are about centralized resource centres at the Board level.

In order to get beyond the initial stage of the teacher-librarian assessing the *potential* for service, teachers need to know and understand how the school library resource centre and the teacher-librarian can contribute to better educational programs in the school.

*Resource Services for Canadian Schools*, prepared jointly by Association for Media and Technology in Education in Canada and the Canadian School Library Association, lists services that should be available from the school learning resource centre. These are listed under the following headings:

- Establishment, maintenance and assessment of objectives of the learning resource centre.
- Active participation in the development of curriculum and the implementation of programmes designed around the use of learning materials in all media.
- Selection, organization and circulation of materials supporting curriculum, program implementation, and individual student interests.
- Production of materials as required by teachers or students to achieve specific learning objectives.
- Information services.
- Services involving equipment.
- Administration of the Learning Resource Centre.
- Maintenance of contacts with the community.

In this book *Resource Services for Canadian schools* the statement is made that all of these services are essential. "The degree to which each service can be provided to teachers and students varies according to the enrolment of the school, the resource centre facilities, the extent of support staff, and the availability of

support services from the district centre".

In the same section on services at the school level, the statement is made "To expect a classroom teacher to implement an individualized curriculum on his own, is to expect the impossible. Every teacher requires the help of a teaching associate, namely a learning resource teacher. The latter, an experienced and creative teacher with specialized knowledge of materials and expertise in their use, collaborates with the classroom teacher in the planning and implementation of learning experiences for teachers".

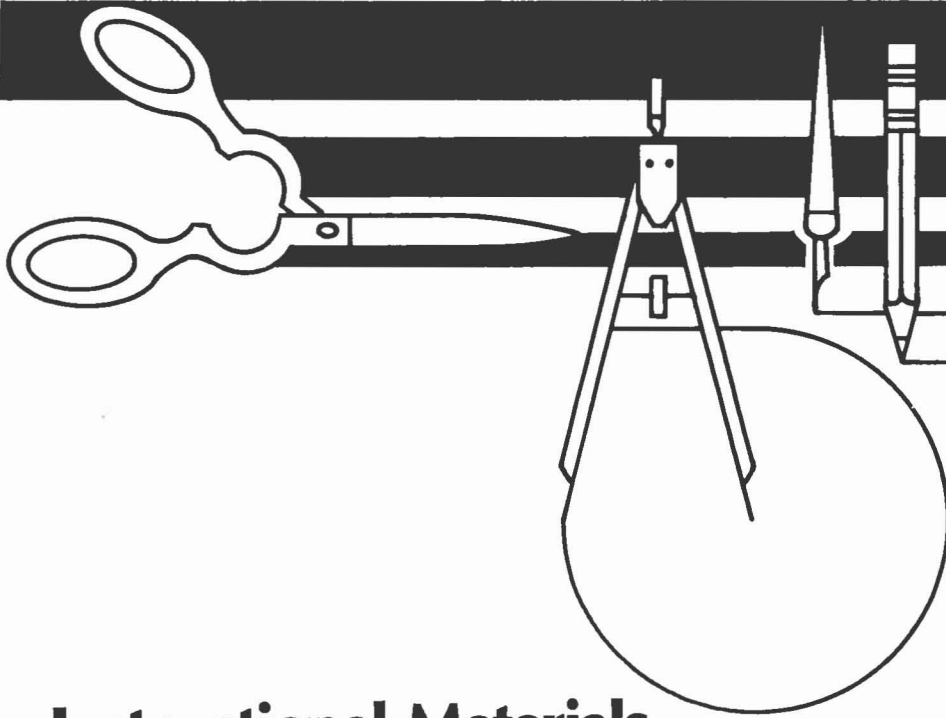
The question is, do teachers perceive the teacher librarian as being the person to whom they can and should be turning for help in planning instructional units?

I am confident that many school librarians have the expertise needed to work closely with classroom teachers. There are many reasons why they are not doing so, however. One reason is related to lack of time for teachers and librarians to plan together. Another and possibly more significant reason is because teachers do not see this as part of the librarians' role.

This seems to be an appropriate stage in school library development to stop and look critically at the contribution of the library and the teacher-librarian to quality education. Budgets are not large enough to support library resource centres if they do not make a positive impact as educational programs. I happen to believe libraries are the key to educational programs that develop in students the ability to question, explore, and to think for themselves. They are also the means whereby students develop habits which lead to life long learning activities.

If an assessment of school library resource centres opens the way to better communication among teachers, principals, teacher-librarians, and school administrators it will be well worth the time and effort. Although this activity can be very time-consuming and, at times painful for the teacher-librarian, it can be a major step toward the development of library resource centres that are vital to the total educational program of the school.

In closing, I would like to refer once more to John Wilson's statement, "self-evaluation is the only kind that ever changes anyone". ■



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## **University of Guelph Senate approves Office for Educational Practice**

At the June meeting of Senate of the University of Guelph a joint report from the Committees on Audio Visual Services and Teaching and Learning was adopted which proposed merging the two activities into a new Office for Educational Practice.

The emphasis of the new Office will be upon educational and instructional improvement through an Instructional Development section and support services

to teaching, research and outreach through three service groups — Illustration Services, Instructional Materials Productions and Technical Operations. A University wide team of faculty members serving on an Academic Consultant Team is envisaged for the new Office.

## **CIDA / UNESCO Workshop in Teaching and Extension Methods in Agriculture**

Seventeen university teachers and extension workers from 14 developing countries attended a 3-week workshop June

11-30 at the University of Guelph sponsored by CIDA and UNESCO.

The workshop included videotapes micro-teaching sessions on expository and questioning techniques, the preparation and use of simple media materials, small group discussion techniques and field study trips.

Information on the workshop may be obtained from Professors Jim Shite or Ab Moore, School of Agricultural Economics and Extension Education, University of Guelph, N1G 2W1. ■

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