PERIODICALS
EDUCATION LIBRARY

Media Message

Media Message Spring, 1980 Volume 9, Number 3 ISSN 0380-0199

UNIVERSITY OF ALBERTA
MAY 2 1 1980
LIBRARY

0346
12
PERIODICALS SECTION
LIBRARY
UNIVERSITY OF ALBERTA
EDMONTON
ALTA
T6G 2J8

FIRST CLASS

HALIFAX
15 V '80
NS
METER
COMPTEUR
159135
CANADA
POSTAGE
POSTAGE
38

Association for Media and Technology in Education in Canada / L'Association des Media et de la Technologie en Education au Canada

Media Message

Volume 9, Number 3
1980

Editor
Richard F. Lewis

Managing Editor
Patricia A. Dolan Lewis

Associate Editors
Lois Baron
David MacDougall
Clayton Wright

Designer
Paul McCormick

Typography
Hanington Publications

Printing
Atlantic Nova Print

Officers of AMTEC

President
Ken Bowers
University of Alberta

Past President
Larry Burt
Nova Scotia Teachers' College

Vice President
Anne Davidson
Department of Education
Saskatchewan

Secretary/Treasurer
Jim Miller
Board of Education
Borough of York

Director
June Landsburg
Carleton University

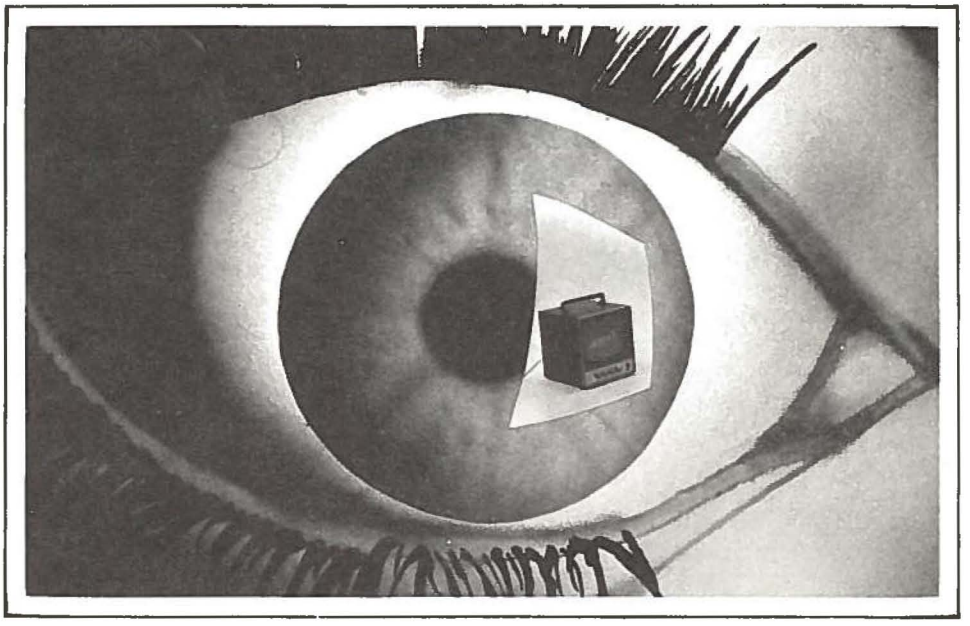
Director
Tom Rich
Department of Education
Prince Edward Island

Director
Lou Wise
Board of Education
City of Toronto

Membership Coordinator
Sally Landerkin
ACCESS Alberta

Articles, book reviews, letters to the editor, etc. for publication in *Media Message* and *Newsletter* should be sent to:
Dr. Richard F. Lewis
Atlantic Institute of Education
5244 South Street
Halifax, Nova Scotia
B3J 1A4

Contents:



Copyright: The Problem that Won't Go Away
R.A. Morton — 2

Into the Eighties: The Information Society and Education
Dennis Dicks — 4

Glossary of Terms: Telidon, Videodiscs, Fiber Optics
Sharon Whillans — 6

Some Things You Always Wanted to Know About Typography and Layout but Didn't Know How to Ask
Michael Gruber — 7

President's Message
Kenneth Bowers — 14

Editor's Comments
Richard F. Lewis — 15

Special Interest Group — Media Instructors
Coordinated by Clayton R. Wright — 16

Developing Individual Learning Modules for Audiovisual Communication
James LaFollette — 17

Evaluation of Holland College's Individual Learning System
Doug Prokopec — 20

Reviews
Tom Rich — 24

Media Message is published quarterly by the Association for Media and Technology in Canada, P.O. Box 174, Station W, Toronto, Ontario, M6M 4Z2. All articles are copyrighted by AMTEC and may be reproduced for non-profit use without permission provided credit is given to *Media Message*.

Copyright:
The Problem that Won't Go Away

R.A. Morton

An article on copyright is hardly the most interesting or creative piece of writing one can undertake. Nevertheless it is a "work" in the copyright sense of the term because it results from my choice of words arranged in an appropriate order which I have determined. No matter how this comes out in the end it is a piece of "intellectual property" and the law says it belongs to me. I can copyright it myself or give permission for others to copy it. I can sell it or assign part of it, adapt it as a stage play or use it as a libretto for an opera. For the present *Media Message* has the right to print it in one issue of the magazine. It is the only right which I have granted and clearly, unless I decide otherwise, it does not give you, the reader, the right to make a large number of copies of the article for distribution. There are several ways of handling the situation and we'll come to them in due course.

Before Photocopying

When the first copyright laws were passed, there was no photocopying equipment. Copying someone else's work meant either writing it out in longhand or setting it in type and printing it without permission, perhaps under a false name but certainly without giving any recognition or recompense to the author. One had to work at copying in those days; it was a deliberate act with the clear intention of infringing on someone else's rights. As we are only too well aware things are now very different. You can place this page in a copier and make as many copies as you like, even though I have not yet given you permission. You can take some comfort from the fact that although there is a copyright law in Canada it is rarely invoked and indeed cases having to do with infringement of copyright laws by anyone in education are difficult to find.

Updating Laws

A law which is virtually ignored and is certainly out-of-date needs to be revised or replaced. While there have been some preliminary rounds of activity in Canada, notably the discussions surrounding the Keyes-Brunet report, there is, at least as I write this, no tangible evidence that concrete steps are being taken. The British revised their law in the late fifties and have recently been going through an up-dating process. The Americans completed a long arduous process when their new law came into effect in January 1978. Even now there are still some loose ends and it would seem that two years later it is not accomplishing all that it set out to do. For us the work in both Britain and the United States is of considerable importance because we can learn from their experiences.

Important as a new Canadian copyright law may be, it is not going to come very easily nor very soon. When it does come, it is not likely to change the current situation very much. Reduced to simple terms the present position is something like this. It has two parts, and this is the first part. Creative people are creating useful works, many of them in new forms using new kinds of expression. They should be rewarded. Other persons with other skills make available these works through publishing, producing, distributing, and performing and certainly they should be paid for their part of the process. But as all of us know payment is not usually a single sum for a single service. The efforts of creative people, such as authors, and those who make their work presentable such as publishers, represent a kind of investment. One characteristic of investments is that some pay off and some do not. If I make a lot of money doing one thing, then maybe I am able to do something else that is worthwhile but not so profitable. The traditional payments for copyrighted works usually, although not always, reflect the success of the works in the marketplace. Royalty payments relate to use, unit purchase or audience size. It is important to realize that although copyright law makes it possible to consider creative work as property most of the other transactions involved in the process have to do with contracts and agreements which may not be related at all to copyright law. So changing the copyright laws may not change the processes now in effect.

User Agreements

So much for part one of the present situation. Here is the other side. Users of copyright, such as those in education, ordinarily can do with the works they buy only whatever the law says they can do with them. You buy a book to read and perhaps study. But users of copyright material are able to make agreements with the owners of such material so that many other uses can be made of it. You can make an agreement which enables you to include a chapter of the book into handout material for students; or you can make a play from one of the episodes or make a movie. Such agreements may take many forms — oral permission, written permission with or without fees or royalties, various kinds of licenses or formal contracts which can contain almost any provisions provided these are consistent with the law.

While a new law in Canada may be years away, problems associated with copyright, particularly for educational users are present now. And efforts should be made to solve those problems within the circumstances which have been outlined above. The time has come for educational users to sit down with producers and owners to explore both ways and means of satisfying the legitimate needs of educators and the equally legitimate concerns of those who make possible the development and distribution of materials used in education. This should be done to meet two different problems re-

quiring two different sets of negotiations. The first would concern itself exclusively with materials intended for use within any formal educational institution of whatever level. The second would deal with the more complicated problems associated with the use by formal educational institutions of materials made primarily for other purposes — leisure reading, theatre, broadcast etc.

AMTEC's Role

AMTEC has a direct interest in both sets of talks and might even take the lead in organizing preliminary discussions with media producers. Because AMTEC members have interests on both sides of the copyright fence it would be logical for it to open a few gates to enable communication to take place. Certainly the posture of confrontation now in evidence will lead nowhere.

Such preliminary talks could serve a similar purpose to those arranged by the Register of Copyright in the United States in the summer of 1977 when media agencies and educators were represented at a meeting to discuss the doctrine of "fair use" as it applied to such activities as taping off air. Through general sessions and group discussions there emerged a clearer understanding of the stands taken by those who were represented. Problems were not resolved but they were defined more specifically. In Canada we need to have this sharper definition of problems and we should discuss the following vital questions: What role will collectives play in future copyright arrangements? What are the implications for copyright of the application of newer technology to education? What concessions can education expect from owners and possibly from any new copyright law?

I want to deal briefly with each of these questions.

The term "collectives" is used in the Keyes-Brunet document to designate an agency to which many companies or individuals assign the right to collect and distribute royalties or fees on their behalf much as happens now with performing rights societies. The idea could be extended to include book publishers, authors, performers or computer program writers. It has even been suggested that there might be user collectives to deal with owner collectives. Although the term "collective" seems to be a Canadian invention the idea in one form or another is becoming widely accepted as a means of bringing some degree of order and fairness into a very confusing situation. What is needed is a careful look at the possible implications of the application of the collective idea to the Canadian scene, particularly as it might affect education.

Impact of New Technologies

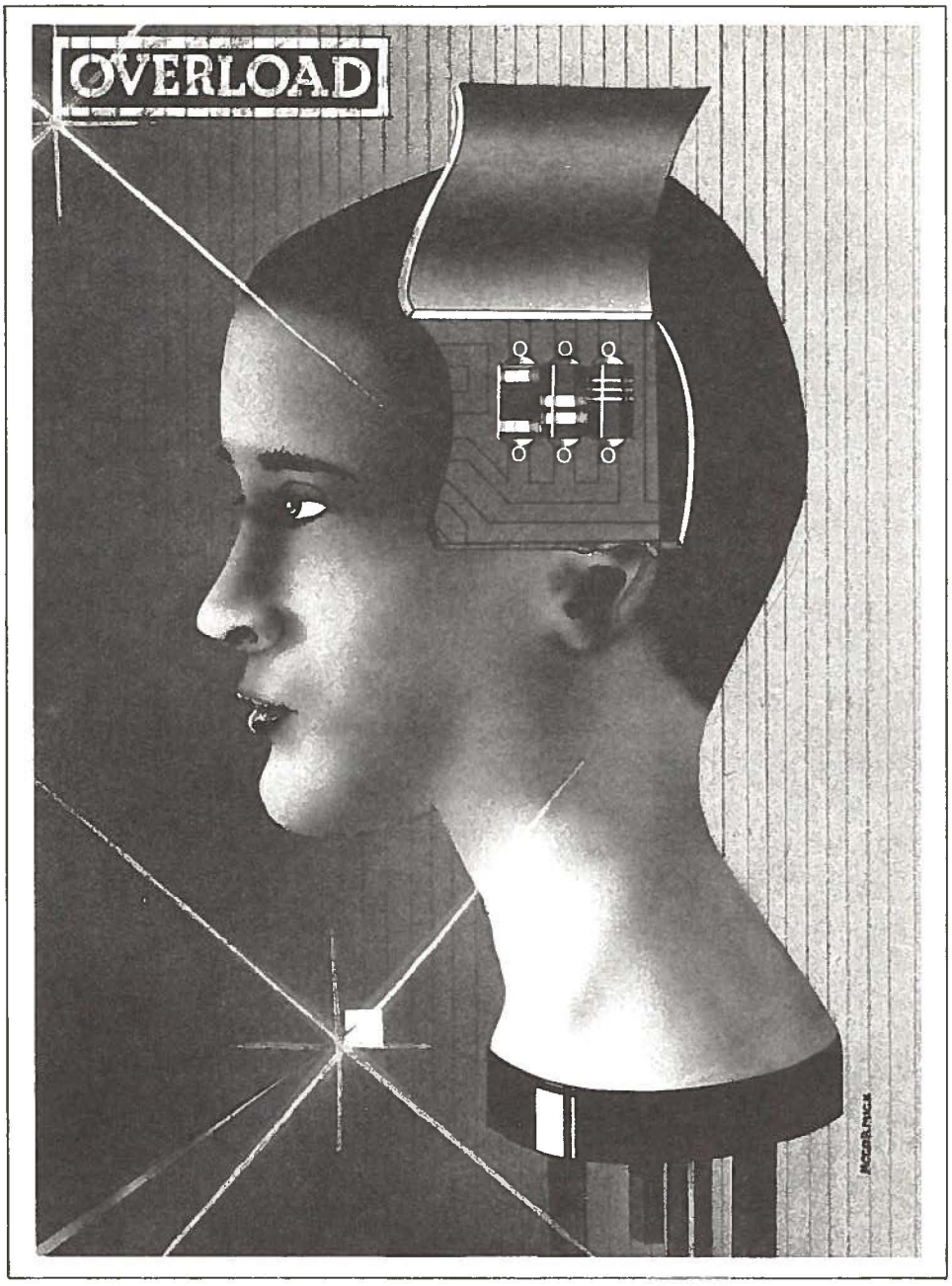
The confusion in copyright has been precipitated by the appearance in the last two decades of very sophisticated copying equipment, both electromagnetic and electrostatic. The confusion is compounded by even newer technologies in the field of communications and computers which transcend international boundaries and make enforcement of copyright law even more difficult. No organization is in a better position to bring together those who are concerned with the relationship among technologies, education and copyright than AMTEC. While it is certain that no easy solutions to problems involving these components are available, it is important to define and carefully consider the impact of these problems.

While it may seem right to ask for exemptions to copyright law for education, I would suggest that such a request be approached with caution. One can argue, as I have argued, that education is an essential social process for which governments are responsible and that the entire "copyright industry" is as dependent upon education as education is upon the "copyright industry". It is often argued, as I have given up arguing, that certain well defined educational uses should be exempt from copyright. Some suggest that all educational uses should be in a special exempt category. What is not usually considered is that writing specific educational exemptions into federal law defines, in some measure at least, what education is. This clearly violates the British North American Act. Reference is often made to the new copyright law in the United States and its provision for "fair use". But the four conditions defining "fair use" do not mention education; they say that character of use, nature of the work, substantiality and economic effect should be taken into account in judging whether any use is fair or not. Something of the sort might be incorporated into Canadian law but it would not single out educational use specifically.

These questions and others could be laid on the table as topics for exploration by both educational users and authors/owners sitting down together in a spirit of openness and understanding. As I stated earlier I think this would be more productive than each side developing positions independently and bringing these to the attention of the lawmakers in a spirit of confrontation. It would also be more productive than doing nothing at all. Some find the copyright problem too troublesome and threatening and so ignore it. But copyright is a problem that won't go away. The future of good educational materials and the future use by educational of a host of materials in many forms is at stake.

R.A. Morton is a consultant in communications in education in Toronto.

Into the Eighties: The Information Society and Education



Dennis Dicks

As the 1980's begin, we are confronted with a rash of predictions about the nature of the coming decade. A dominant theme in the predictions is the "information society" concept, envisioning persuasive effects of new information technologies on social and economic life. For those of us who were around ten years ago, there are some familiar notes in the theme: in 1970, the first communications satellites were in operation, computers were proliferating, the American Bell system (A.T.&T.) was about to launch its videotelephone, and the Wired City seemed to be at hand. Clearly, many of those visions were not fulfilled in the seventies. Will the promise of the eighties prove empty?

To venture an answer to this difficult question, developments in telecommunications must be carefully examined (here, the term "telecommunications" will be used very broadly to encompass all mass media and point-to-point media; e.g. telephone, computer). Two key forces influenced the telecommunications field in the seventies: technological innovation and regulatory changes.

Technological Innovation

Technological innovation is a rather obvious force for change. However, the important question is, what avenues of innovation will lead to lasting effects in the coming decade? One avenue was the intensive development of semiconductor technology — even smaller "chips" that handle increasingly sophisticated computer operations. Miniaturization and economics of large-scale production have dispersed computing power from central monoliths to local desk-tops, like the minicomputer and the cable decoder. A second avenue of innovation, involving technologies that increase transmission capacity; (e.g. coaxial cable, satellite) has steadily decreased the cost of sending signals from one point to another. A third line of development has forced the first two together: as transmission systems carrying electronic signals began to rely on electronic processing to increase reliability, switching speed and capacity while reducing costs, the distinction between the transmission function and the computing function faded. As a result, the seventies closed with corporate giants like A.T.&T., I.B.M. and Xerox beginning to tread on one another's toes.

Regulatory Changes

Technological innovations, permitting new types of action, tend to create pressures for regulatory change. Regulatory change in turn tends to acccelerate technological innovation, as new faces are allowed into the marketplace. In the United States, the seventies began with the "Carterphone decision", requiring for the first time that telephone companies allow

subscribers to connect equipment manufactured by other companies to their lines. As a result of this change in regulations, new telephone-based communications services, such as facsimile and data transmission, developed explosively.

Similarly, new regulations broke the monopoly of telephone companies on long-distance transmission. New "carriers" rapidly evolved to provide tailor-made services for computer-to-computer exchanges, business communication, and TV distribution. As the decade ended, the three giants of the information industry were visiting the regulatory bodies with revolutionary plans: A.T.&T. with its telephone-based Advanced Communications System (A.C.S.); I.B.M. as part of the Satellite Business System consortium; and Xerox with its microwave-based X-TEN.

Relaxation of regulations allowed cable-TV to enter and rapidly consume the U.S. entertainment market. In the American case, the demand was for alternatives to the United States' networks, usually in the form of pay TV. The use of satellites for distribution permitted the birth of the "superstation", an independent TV station feeding programs from independent producers to cable systems across the U.S.

Although regulatory changes have begun earlier in the United States, the same winds are blowing Canada. The C.R.T.C. made its first decision in favour of "interconnection" of telephone devices towards the end of the seventies. And the telephone carriers in Canada are bracing themselves for battle with cable companies for the right to new information services and pay TV. Ironically, the Canadian experience with cable TV and the Anik satellite helped push the pace of change in the United States.

Into the Eighties

The technological and regulatory trends of the seventies will have a number of major manifestations in the coming decade. One manifestation that does not seem very likely is the Wired City wherein most if not all transactions in business, government, commerce, and education would be conducted via telecommunications devices. While it does seem probable that teleconferencing, telecomputing and document transfer will substitute for some commuter and inter-city travel, there are strong social and economic pressures precluding total substitution (Dicks et al., 1979).

Nevertheless, the forseeable manifestations will have pervasive if less dramatic effects on life in the eighties. Most obviously, the number and variety of high technology industries will increase. There are already several rapidly expanding Canadian firms that can compete in world markets for semiconductors, telephone equipment, computer peripherals, word processors and avionics. The demands of this type of industry will exacerbate existing shortages of skilled workers. While the Canadian educational system has done well in providing the managers, programmers and engineers, it will have to effect a minor miracle to fill the demand for blue-collar skills in the eighties.

Domestic Technology

One of the products of the new technology will be some sort of interactive information service. The goal in the proposed Telidon service, a Canadian development in the "videotex" area, is to allow the average citizen to select information from central data banks, to be displayed on his home TV screen. He might also be able to generate information to store in the bank or send to a friend. An information technology deployable in the average home would generate an enormous demand for useful information. It is safe to say that the success or failure of the videotex services planned for Canada or elsewhere will depend on the quality and quantity of information made available to the subscribers. Major newspaper organizations, like Southam-Torstar and FP Publications Ltd. whose regular jobs may be threatened by electronic information systems, have already turned their attention to this supply problem. But it seems likely that the demand for people with literary and artistic skills will increase in the coming decade.

The same sort of demand may well accompany the diversification of the broadcasting industry into additional channels and pay TV. A satellite delivery system can unite isolated bits of audience into a workable minority. The influence of the NBC-ABC-CBS cartel in the program market could thus be reduced, and the door opened to the independent producer. It remains to be seen whether Canadian producers will be able, perhaps with some of the incentives recently lavished on moviemakers, to rise to the occasion. It also remains to be seen whether cable operators and the commercial TV networks in Canada will be able to improve on their poor track record in program production, if given the pay-TV plum.

Office Technology

We can also expect the technological thrust of the seventies to manifest itself in office automation through the eighties. The word processor has struggled to cast off its initial image as a smart typewriter for improving the secretary's efficiency. With changes in technology and attitude, it may be ready to become a device for managing office files and procedures, for document generation and electronic mail. Part of the attitude change may permit at least some of the secretaries to rise above menial office tasks to managerial positions. On the other hand, it seems quite likely that the real gains in office productivity will come if and when the managers themselves start to handle their correspondence directly on word processors. In any case, the introduction of word processing equipment will require new skills in the office. Much of the training will have to be done on the job; and much of it could be done with suitable self-instructional packages on the word processor itself.

More Learning, Less Education?

To this point, I have mentioned "education" only negatively, to deny the likelihood of the "electronic school". The formal educational system will have to adjust in

its slow and subtle way to the demands for new types of skills that information industries create. Many of the developments foreseen for the eighties require new types of performance on the job and our emphasis in formal education on the university model is very poorly suited to that task. It seems quite likely that the "informal" educational milieu will have to take up most of the slack.

Information technologies are well-suited to on-the-job-training because they can be used to teach about themselves. At least some of the instructional and control functions usually allotted to the supervisor can be programmed into the word processor, videotex terminal or minicomputer that the trainee is trying to master, such that learning becomes a challenging but non-threatening game.

These sorts of creative approaches to the business of human resource development will be required if we are to remain abreast of the "information society" in the eighties and beyond. The effects of new information technologies may help to convince us, where philosophers have failed, that there are intelligent and effective alternatives to the traditional 20-year stint in school.

References

Dicks, D.J., Malkin, M., and Croteau, P. "The wired city: Probable impacts on transportation and education in a suburban community." Proceedings, International Conference on Communications, IEEE, Boston, 1979.

A native of Ottawa, **Dennis Dicks** studied at Carleton University, the University of Chicago, and London University. Obtaining a Ph.D. in Communications Psychology in 1972, he worked as a research associate in Electrical Engineering at Queen's University before joining the Educational Technology Program at Concordia University in 1974. Professor Dicks' current research interests include the socio-economic impact of communications technology, and models for integrating skill-training programs in industry.

Glossary of New Terms: Teledon, Videodiscs, Fiber Optics

Sharon Whillans

A two-way television system known as Telidon is piloting new approaches to information retrieval and dissemination. A Canadian developed system, it employs a central computer store of information that can be distributed to the user via television receivers. By pressing a hand-held keyboard similar to a pocket calculator which is linked to a Telidon adaptor, a person can consult a general index, locate the subject of interest and select very detailed information. This makes it possible for the user to conduct business transactions, take educational courses, purchase items and bill them to his account. It provides the user with instant access to current stock reports, weather reports, travel timetables, etc. Restaurant, theatre and travel bookings could be made from the Telidon terminal. Mail could be sent and received and newspapers could be printed at home on a home telecopier. This is possible because of Telidon's ability to project printed text, graphics and halftone photographs. In the future, this system will provide person-to-person communication. Teleconferences will be conducted in which all participants, although widely separated in location, view the same graphic materials, make changes and deletions to the common display. In terms of distance education, the Telidon will provide a common blackboard for students and teachers to conduct class.

Videodiscs

The optical videodisc uses a metal disc read by a laser beam contained in a machine which looks like a record player. As the disc is read, an image is projected on a screen. The image is similar to a motion picture — there is sound and action.

Because nothing actually touches the disc, it will never wear. In addition, the disc can be operated in slow motion, superfast motion, and in forward and reverse. It also allows individual frames to be isolated and projected. It is possible to search and locate any frame at any point on the disc within 20 seconds.

Storage capability of the videodisc is immense. Fifty-four thousand individual images can be stored on a 12-inch disc. Through the use of a mini-computer, each image can be encoded for each reference so that printed pages could be viewed as easily as pages of a book. With these single-framing capabilities, thirty, 300-page books could be carried on one disc, or an equivalent of 675 slide carousel trays, or one-hour of playing time for a conventional motion/sound medium.

Fiber Optics

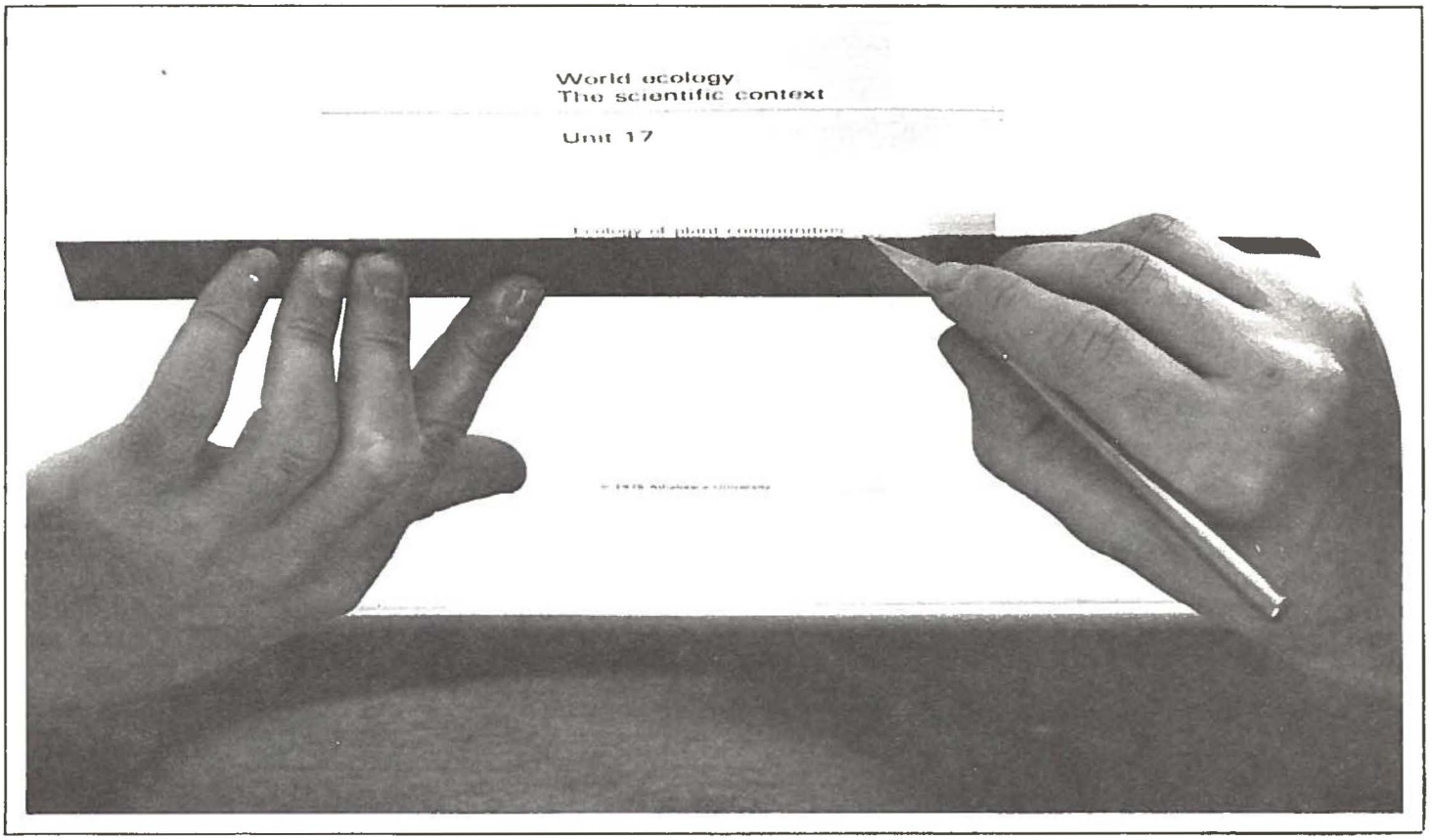
Fiber optics are fine glass fibers the thickness of a human hair that are capable of transmitting information in streams of coded light pulses. Fiber optics are capable of sending out huge amounts of information with the speed of light; for example, they could flash every word of the 30-volume *Encyclopedia Britannica* in a tenth of a second.

Fiber optics are currently being studied by television as a means of increasing the number of television channels. Because fiber optics are capable of carrying more than a hundred channels of audio, video or printed data, in a small space, their use in broadcasting is extensive.

Sharon Whillans is an art teacher in the Edmonton Public School Board and a graduate student of Dr. Kenneth Bowers in the Educational Technology Program in the Faculty of Education, University of Alberta.

Some Things You Always Wanted To Know About Typography and Layout but Didn't Know How to Ask

Michael Gruber



You've completed your manuscript, printed your photographs, have been allocated a piece of the budget, and are ready to produce a professional piece of printed material. You hesitate. You're not sure where to begin so you turn to your bookcase and start looking through old textbooks for techniques on how to prepare camera-ready artwork. You are not alone. Like others you've come across one of the gaps in your education. You're not schooled in printing and typesetting jargon. You're not exactly sure what the term "camera-ready-artwork" implies. If this is the case, this article is for you. It is intended to help you fill in some of that missing knowledge so that you can confidently pick up your manuscript and proceed with your task.

Communicate Effectively

Before we delve into the technical side of the subject, there are some preliminary considerations worth thinking about. Most important, we must not overlook our primary purpose which is to communicate effectively. As a quick exercise glance at the spines of the books on your bookshelf. How many of the titles on those spines can you readily and easily read? How many are hard to read because the lettering is too small, the typeface is confusing, or the words are awkwardly positioned or are obscured by the poor use of colour? This is what we want to avoid, poorly designed materials that are difficult to read.

Your effects will be wasted if your material is not readable. Resist the impulse to choose gimmicky typefaces, they quickly become dated and may be difficult to read. Remember there are many variations to be had within a single typeface. Most have an italic, a bold, and a medium face, all in any size you require.

Before you start on your project look at some successful publications. What do you like about your favorite books or magazines? Take a look at the typefaces they've selected and how they've positioned the different elements on the page. Pay particular attention to the type of mood that is established. Is it leisurely or businesslike, does it impart the information in a clear and concise fashion, or does it invite a slow perusal of the page? Keep this in mind when considering the circumstances under which readers will likely be looking at your materials.

Obtain Tools

To help you work efficiently, there are a few tools you should ac-

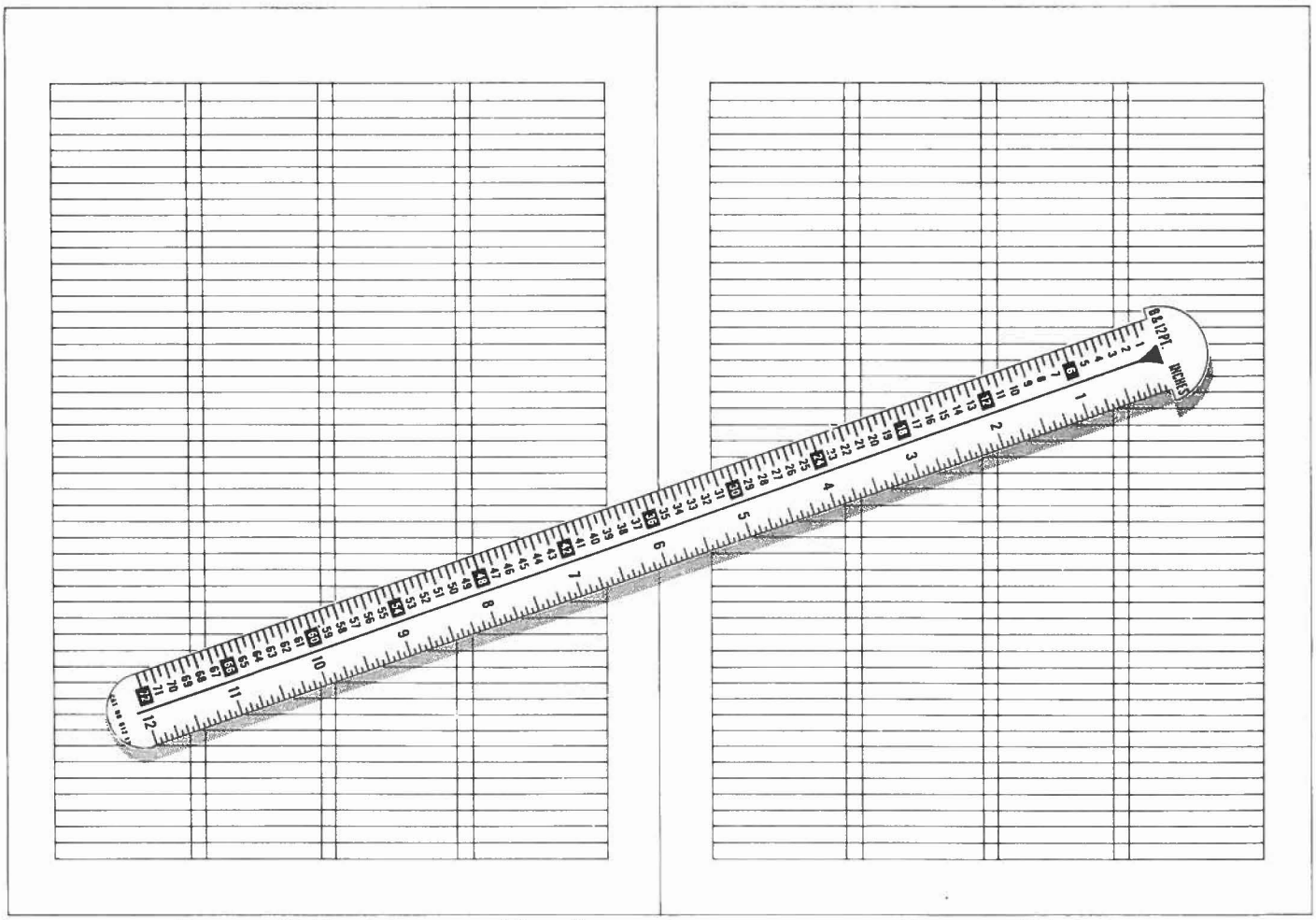
quire. At a minimum you'll require: a sharp knife, an x-acto knife with a number 11 blade is commonly used; a ruler, preferably one that has a pica scale, these are availabe from printing supply dealers; a technical pen for ruling lines and borders; and something with which to stick your typeset copy onto the paste-up sheet. If you have access to a waxer, or if your typesetter can wax the back of the copy for you, it is easier to position your typeset copy onto the sheet and then pick it up and reposition it if necessary. However, the old standard rubber cement will suffice.

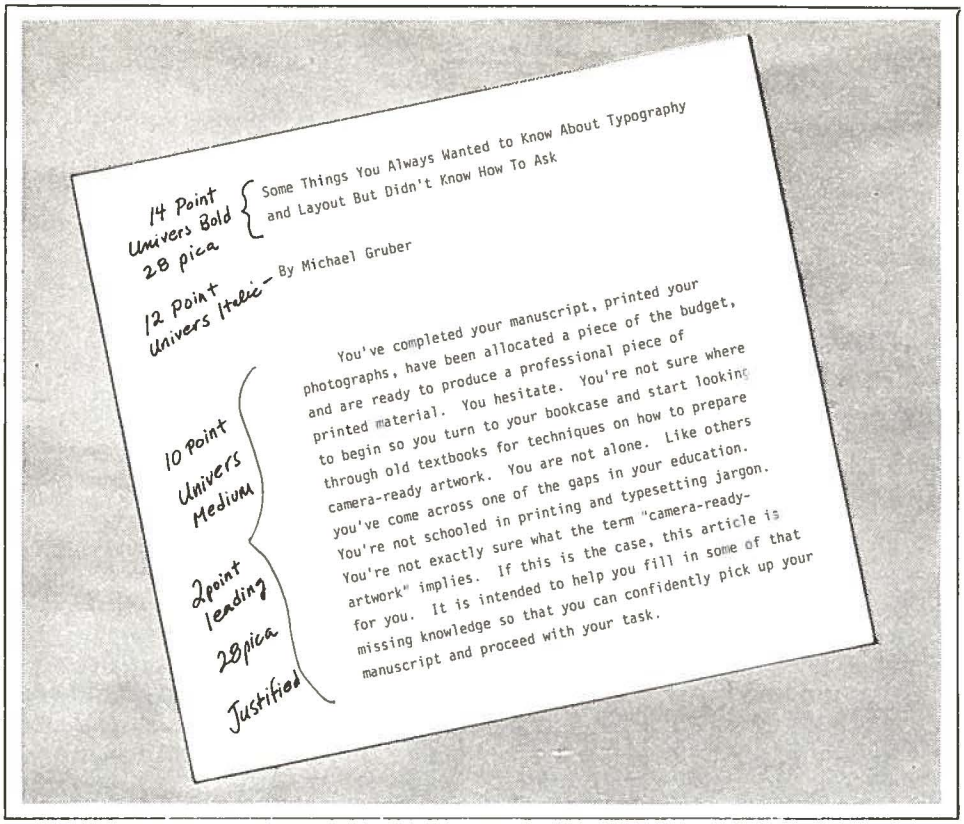
Decide Format

Now you're ready to start. First you have to decide on the format of your layout. You will require a grid to use as a framework on which to arrange your copy and visuals. In the same way that notepaper with lines printed on it helps to keep your handwritten notes straight and legible, a grid serves to keep your pages standardized by indicating where the type is to be positioned. Your grid sheet should be the size of the final printed page, in the case of a multi-paged publication it should show two facing pages so that you can paste up your facing pages together in order to avoid any clash in your "spreads". The grid should indicate the margins top, bottom, left, and right and show the number of columns you are going to use. If you know the height of the type you are going to use you can also rule in lines as they aid in keeping your copy straight as you are doing your paste up.

Your column width will determine the length of your line of type. By looking at books and magazines you can see that there is no one standard length, so it is best to rely on your common sense. Magazines and newspapers generally use several narrow columns of type per page, while books usually only one, sometimes two. A number of research studies have been done to determine what column width is most easily read. Not surprisingly, the studies agree that the line should not be too long so that when a reader's eyes reach the end of a line they have no difficulty locating the next line when looking back. A rule I use is that for 10 point type, a size that is commonly used for textual material, I never use a line length that exceeds 28 picas (four and two-thirds inches).

This brings us to printers' measurements. If you thought converting to metric was confusing don't be discouraged. This is not very difficult. The two units of measure typesetters and printers most often refer to are points and picas. There are 12 points in a pica and six picas in an inch. Points are usually used for small vertical distances and picas are used for horizontal distances. Points are generally used to measure the height or "size" of type, the greater the point size the larger the type. Your typesetter should be able to provide you with a chart showing the different typefaces he has available and samples showing the different sizes he can set with an indication of their point size. You will use this point size designation when you mark up your manuscript for type-





setting. At that stage you will indicate the different sizes of type you want for the various elements, such as titles and text.

Picas are used when you indicate on your manuscript to what length you want your type to be set. If for example, you have two columns of type on your page each of which is 3½ inches wide, you would indicate that your line length is to be 21 picas.

Select Typeface

There are a number of things your typesetter must know before he can typeset your manuscript. He must know the typeface you have selected, which variation of that face you want to use (i.e., italic, bold or medium), the point size it is to be set in, how long your line length is to be, and how many points of space you want between your lines. Just as on your typewriter you can choose to single or double space, you must choose what amount of space you want between lines in your typeset version. As a rule of thumb, for textual material two points of space between lines is a good distance. This is known as two point leading. The term leading comes from the days when type was set by hand and the printer would insert strips of lead between lines of type to separate them.

A final consideration is whether you want the type set justified or unjustified, also referred to as ragged. Justified type is set in such a way that both margins of the column of type are straight or "flush". The text in most newspapers and magazines is set justified. Unjustified, like something typed on your typewriter, has one margin flush and the other margin ragged. This type of setting is being used more and more. The basic difference between justified and unjustified is that the spaces between words in unjustified setting remains constant throughout. In justified setting, the wordspaces are manipulated in order to make all the line lengths equal. The wordspaces in justified text therefore are unequal. Legibility studies show that neither method makes a significant difference to reading speed or comprehension, so basically it is a matter of taste as to which style you choose.

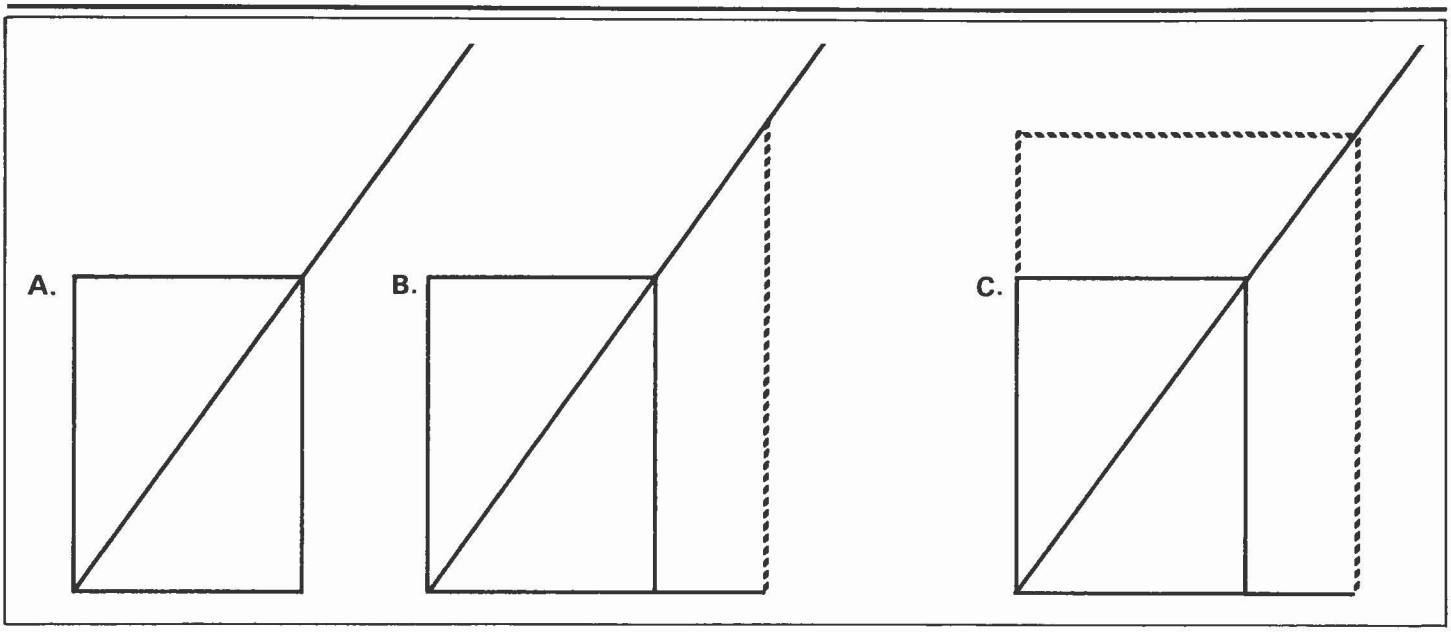
Now that you've talked to your typesetter and selected your typefaces and line length, and decided on the parameters of your page, take your ruling pen, rule up your grid and tape it to your table or drawing board. Cover your grid with tracing paper. You will paste your copy onto it, using the grid beneath as a guide. If you have a light table to work on, so much the better as it makes it easier to see through the paper and follow the grid. Make sure your tracing paper is either the exact size your printed page is to be, or larger. If it is larger indicate where the corners of the page are so your printer knows exactly how to trim the printed page. If you have already selected your printer ask him if he has any preprinted grid sheets. Some printers have grids printed in non-reproducible blue. You can paste your copy directly onto these sheets and any uncovered blue lines will not reproduce when the work is printed. These pre-printed grids are more convenient to work on than tracing paper overlays, but may not have the margins and columns marked to your preference.

Once you have your grid established you can mark up your manuscript. If you are not sure how to proceed, take another quick trip to your typesetter. Show him your grid and your needs. He'll be able to advise you on how to mark up your manuscript so that he can set exactly what you want.

Paste Up Copy

When you've received the typeset copy back from your typesetter you are ready to paste up your camera-ready artwork. "Camera-ready artwork" or "the paste-up" are synonymous terms. They indicate that the pasted-up material you give to the printer requires no further changes. He can make his printing plates directly from your work. The term "camera-ready" simply refers to the photo-lithographic process the printer uses to make his printing plates.

If possible, before starting to do your paste-up, take a trip to your printer. Ask for a short tour of the art department or ask for pointers on the paste-up process. The printer should be able to show you samples of paste-ups to give you an idea of what is involved. The best way to approach the task of paste-up is to start by making yourself a xerox copy of your typeset material and any photographs



or drawings you want to include in the printed version. You can cut these copies up and try different arrangements on the page until you're satisfied with the result, and when you do your paste-up you'll have worked out your layout ahead of time and won't have to rearrange your work. Remember, elements such as rules, white space, and boxes can help to order your material or emphasize certain parts of it. Again look through printed materials you have to see what others have done.

Integrate Artwork

At this point is is important to know what can be done with your visuals such as drawings and photographs, and what it entails. It must be remembered that they can be printed in any size. You are not restricted to the size of the original drawing or photograph. Also, you may crop the visuals in any way you please. There is no reason you must necessarily use the entire photograph in front of you. Skillful cropping can make a dull photograph look exciting. In order to indicate how you want an image cropped, tape a piece of tracing paper over the image and draw a box around the portion of the picture you want reproduced.

Once you have cropped your image there is a simple method for determining what size it will be, and what proportions it will have if it is to be enlarged or reduced in the printed version. The procedure is as follows:

A. Draw a diagonal line through the box indicating the cropping.
B. Determine the width you want the printed photo to be (i.e., one column, two columns or whatever suits you). Extend the base line to the desired width and draw a perpendicular line to your diagonal.
C. Draw in horizontal line C and you have the size of the printed version.

This method works equally well for reducing as well as enlarging photographs or drawings. In the case of preparing your paste-up for a photograph, carefully rule a clean box on your paste-up sheet the same size you wish the photograph to appear and in the exact location you want it to appear. Inside the box write a description of the photograph you want to appear there, write the same description on the tracing paper covering your photograph, being careful whenever you write on the tracing paper not to score the surface of the photograph with too much pressure as this could show up in the printed version.

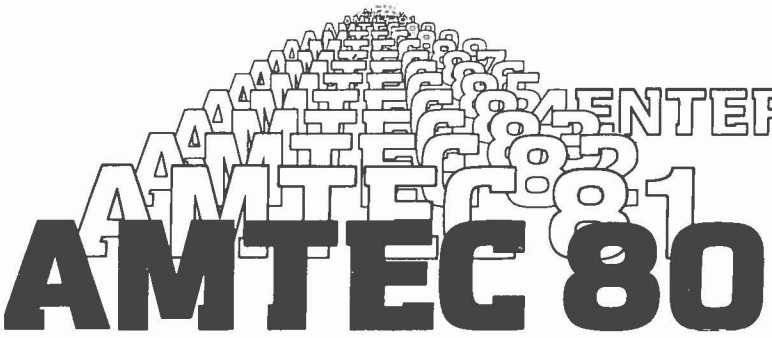
Paintings or other artwork such as shaded pencil drawings which have a tonal quality are treated in the same way as photographs. Line drawings without tonal qualities, preferably done in pen and ink for best printing results, can be treated in the same way, or they can be cropped and sized and taken to the printer in advance. Ask the printer to make you PMTs (photomechanical transfers) of the artwork. The printer will then supply you with an enlarged or reduced copy of the work which you can paste directly onto your paste-up sheet. Artwork that is prepared the same size as it is to appear in the printed version can be pasted directly onto the paste-up sheet without the expense of having a PMT made. However, artwork which you do not want to damage in any way by pasting it onto the sheet can be saved by having a PMT made of it.

Once you have your paste-up completed and your images cropped and sized, you are ready to take your work to the printer. As a final step, select a paper, from the printer's samples, that you feel is suitable for the type of job you have. Then carefully go over the paste-up with the printer so he knows exactly what you want your finished result to be.

Summary

If you find yourself in a position to prepare camera-ready artwork hopefully this article will start you on the road to being conversant with your typesetter and printer and give you an overview of what is involved. This article alone may not be enough to make you a seasoned paste-up artist but hopefully it can point the way to a professional looking result.

Michael Gruber is a visual designer at Athabasca University and a graduate student in Educational Media at the University of Alberta.



EDMONTON, ALBERTA
JUNE 15-18

AMTEC '80 Registration

NAME _____

ADDRESS _____

_____

POSITION _____

ORGANIZATION _____

SPOUSE'S NAME _____

Make your cheque payable to AMTEC 80. Forward your cheque and this registration form to:

Terry Kernaghan
Registrar, AMTEC 80
AECA
Devonian Building
11160 Jasper Avenue
EDMONTON, Alberta
T5K 0L2
Tel. (403) 427-3504

COMPREHENSIVE REGISTRATION
June 15-18 INCLUSIVE
(Includes: receptions, luncheons and evening entertainment)

AMTEC Member	$150.00
Before June 1	$130.00
Membership Renewal/Non-Member	$180.00
Before June 1	$160.00
Student — full time (includes student membership)	$ 90.00
Before June 1	$ 70.00
Spouse (excludes membership)	$ 90.00
Before June 1	$ 70.00

DAILY REGISTRATION
LECTURE SESSIONS ONLY
(Does not include membership, meals or social functions)

AMTEC Member	$ 30.00
Non-Member	$ 40.00
Student — full time	$ 5.00
Student (3 days)	$ 10.00

Other AMTEC MEMBERSHIPS AVAILABLE

Institution (Educational)	$ 50.00
Organizational (Commercial)	$100.00

AMTEC Membership

AMTEC membership is on an annual basis with dues payable July 1 each year.

NAME: _____

ADDRESS _____

_____

_____
(postal code)

TELEPHONE: _____
(area code)

Types of Membership (includes all publications)

☐ Student	$ 10.00
☐ Individual	$ 30.00
☐ Institutional	$ 50.00
☐ Commercial	$100.00

Subscription Only

☐ Media Message and Newsletter	$ 30.00

AMTEC SPECIAL INTEREST GROUPS
(please check one)

- ☐ Media Utilization
- ☐ Instructional Developers
- ☐ Media Teachers
- ☐ Media Managers
- ☐ Other: _____

Please make cheques payable to AMTEC and mail with this form to:
MRS. SALLY LANDERKIN
c/o ACCESS TV South
1611 29TH St. N.W.
Calgary, Alberta
T2N 4J8

CONCURRENT SESSIONS

(Please check concurrent sessions preference — maximum of 8 sessions. For planning purposes only; space not guaranteed.)

- ☐ Videodiscs and Information Retrieval
- ☐ An Introduction to Micro-Computers
- ☐ Provincial Educational Media Presence in the Eighties
- ☐ Distance Education — Athabasca Open Learning Institute
- ☐ Improving University Teaching
- ☐ Television Simulation in Second Language Teacher Education
- ☐ Panel Discussion on Electronic Futures
- ☐ EPIE Evaluation of Media Materials
- ☐ New Techniques for Color Micro-Fiche Production
- ☐ Multi-Media Literacy

- ☐ Sesame Street Model Non-Cognitive Learnir
- ☐ Commercials, the Best Things on TV

- ☐ Cost Analysis of Innovation — ID for an AV Course

- ☐ Telidon
- ☐ Canadian Film Production for the Eighties
- ☐ Designing and Visualizing Educational Materials
- ☐ Guidelines for Alberta School Libraries

- ☐ Media Selection Workshop
- ☐ Instructional Design for the Eighties

- ☐ Alberta Cable and Future Possibilities
- ☐ Interfacing Videodiscs with Micro-Computer
- ☐ ACCESS Field Services

- ☐ Educational Technology Financial Priorities for the Eighties
- ☐ Use of Media in Native Education
- ☐ Authoring and Designing Videodisc Materials — What Experience is Showing
- ☐ Television Signal Improvement Workshop

- ☐ The Future of Computer Technology
- ☐ Research, Children and Television
- ☐ AV + LIB = LRC, A Meeting of the Minds?

PLUS
Six AMTEC Special Interest Sessions

AMTEC Business Meeting

AMTEC '80 Media Festival Entry Form

1. Submit one separate form for each project.
2. Submit one form with the project.

CATEGORY (circle one)
1. 16mm or Super 8mm (open reel) Does not include kineoscopes of videotapes or other films made using electronic processes
2. Video tape (1/2" or 3/4" cassette or EIAJ open-reel)
3. Sound-Filmstrip (audio cassette)
4. Sound-slide (audio cassette)

CLASS (circle one)
1. Individual School
2. School System
3. Post-Secondary
4. Government Media Agency
5. Student (as part of a course)
6. Commercial Producer
7. Business/Industry
8. Other _____

SEND ENTRY AFTER MAY 1, 1980
BUT BEFORE MAY 16, 1980.

TO: Linton Delainey, Awards Chairman
c/o Hans Kratz
Alberta Educational Communications Authority
The Devonian Building
11160 Jasper Avenue, Edmonton, Alberta
T5K 0L2

TITLE _____

LIST COMPONENTS _____

RUNNING TIME _____ DATE OF PRODUCTION _____

NAME OF INSTITUTION _____

PRODUCER _____

PERSON(S) SUBMITTING ENTRY _____

OBJECTIVE OR STATEMENT OF PURPOSE _____

_____

_____

_____

_____

_____

_____

_____

RETURN ADDRESS: _____

_____

_____

☐ Submission to be picked up at Conference. ☐ Return by mail.

I accept the terms as stated in the ENTRY GUIDELINES MEDIA FESTIVAL — AMTEC '80

_____
(Signature)

AMTEC '80 Program

SUNDAY, JUNE 15

Registration

5:00 p.m. Opening reception sponsored by Bell and Howell.

MONDAY, JUNE 16

8:30 a.m. Opening remarks.
Hans Kratz, Conference Chairman

9:00 a.m. Theme Session
Hon. David King, Alberta Minister of Education
Geoffrey Hubbard, Council on Educational Technology, London, England.

10:30 a.m. Exhibits and coffee

11:00 a.m. Special interest groups and concurrent sessions: telecommunications, films and television production; graphic and photographic production; programming for young children.

12:15 p.m. Luncheon

1:30 p.m. Dr. S.N. Postlethwait, Purdue University, Specialist in the audiotutorial approach to learning

2:00 p.m. Regional Organizations — Stephen Evans, Mount Royal College, Calgary. President of the Board — Educational Media Council of Alberta.
Exhibits and coffee

3:00 p.m. Special interest groups and concurrent sessions: Alberta Teachers' Association — Learning Resource Council; media selection workshop; cable and future possibilities.

6:30 p.m. Social evening at Fort Edmonton. Dinner sponsored by the Government of Alberta with Hon. David King, Minister of Education as official host.

TUESDAY, JUNE 17

8:00 a.m.	Continental breakfast in Exhibits area.
9:00 a.m.	Theme Session Introduction to Videodisc. Two specialists from Utah State University
10:30 a.m.	Exhibits and coffee
11:00 a.m.	Special interest groups and concurrent sessions: interfacing videodiscs with micro-computers; ACCESS Field Services presentation; use of media in native education.
12:00 p.m.	Luncheon
2:30 p.m.	AMTEC Business Meeting TRURO Presentation regarding 1981 Conference Exhibits and coffee
3:00 p.m.	Special interest groups and concurrent sessions: designing videodisc materials Utah State University; the future of computer technology; children and television
4:00 p.m.	Continuing sessions and special interest groups.
5:00 p.m.	Alberta Teachers' Association — Learning Resource Council; videodiscs and information retrieval — Utah State University; Multi-media literacy — ACCESS presentation; Media selection workshop
7:00 p.m	AMTEC Awards dinner

WEDNESDAY, JUNE 18

9:00 a.m.	Sessions An introduction to micro-computers — presentation and workshop Panel Distance education — Athabasca University Open Learning Institute — B.C. Télé-université — Montreal — Improving University Teaching — Dr. G.A.B. Moore, Director, Office for Educational Practice, University of Guelph — Media selection workshop — V. Millar, Public Affairs Branch, A.V. Unit, Canada Post Office Exhibits and coffee
11:00 a.m.	Sessions T.V. Simulation in Second Language Teacher Education, Dr. D.V. Parker, Faculty of Education, University of Alberta Panel discussion on electronic futures EPIE evaluation of media materials, Martin Adamson, Curriculum Branch, Alberta Department of Education Commercials: The Best Things on Television, Dr. Denis Hlynka, Faculty of Education, University of Manitoba Cost Analysis of Innovative Instructional Development for a Basic A.V. Course, Dr. C.Y. Oh, Faculty of Education, University of Alberta
12:00 p.m.	Luncheon
2:00 p.m.	Trimedia Studio Presentation, Alan T. Waldie, President, will speak on the development of the complex.
3:00 p.m.	Alberta Teachers' Association — Learning Resource Council "The Alberta Experience" (AV Council and Library Council Panel) Alberta Association Education Cable Consortia Business Meeting Color Microfiche Production, Dr. G.A.B. Moore, Director, Office for Educational Practice, University of Guelph. Telecommunications and Social Policy in the Eighties, Dr. Dennis Dicks, Assistant Professor, Graduate Programme in Educational Technology, Concordia University. A Needs Assessment Model for an Integrative Skills Training Program, Hanna Mayer, Department of Education, Concordia University. T.V. and Literacy — Relationships, Virginia Davis, Supervisor, School Library Services, Winnipeg.
4:00 p.m.	Plenary Session
5:00 p.m.	Conference Review: Dramatic Presentation Catalyst Theatre, University of Alberta Drama Department
6:00 p.m.	Final Banquet Klondike Night Entertainment

President's Message

Kenneth Bowers

At AMTEC '80, June 15-18 in Edmonton, your current president will be taking office as past-president. Anne Davidson, who will have served as president-elect for a year, becomes president. One of the principal responsibilities of the past-president will be to appoint a nominating committee to prepare a slate of officers for the executive for the 1981-82 year. If you would like to be on the nominating committee or would like to run for election to the new slate of officers, please write, call, or see me. The questions facing our board are challenging. We need the best talent available to make key decisions for the years ahead. Will you help by suggesting nominating committee members or nominees?

1979-80 AMTEC Executive

The current Board is working hard to make progress on a number of fronts. At the board meeting in Toronto on February 14 and 15 a number of steps were taken to benefit you through your organization.

Richard F. Lewis and Patricia A. Dolan Lewis, editors of Media Message and Newsletter, were applauded for the quality of the editorship. They were asked to consider the current editorship to be a two-year term. They accepted. We all appreciate the Lewis' devotion to this effort, at great investment of time, effort and some considerable personal expense.

The efforts of Sally Landerkin, membership chairman, were recognized as being very great and critical to the progress of AMTEC. She has efficiently organized the membership renewal system and is producing, with the highly significant (and valuable) assistance of Lou Wise, a membership kit or information package on the terms and benefits of AMTEC membership. Sally was co-chairman of AMTEC '75 in Calgary.

Larry Burt, Past-President of AMTEC during 1979-80, is working on a revised constitution which will reflect the way AMTEC operates rather than how it might operate if it had other resources. Larry is also organizing the AMTEC '81 conference to be held in Truro, Nova Scotia and heading the 1979-80 nominating committee.

Jim Miller, secretary-treasurer, keeps minutes and financial records, pays the bills and keeps the correspondence of the Association in order. Jim makes all arrangements for board meetings and is tackling the problem of a permanent office for AMTEC.

Anne Davidson, president-elect of the 1979-80 board, spear-headed AMTEC '79 in Regina and is liaising with the professional media people in Manitoba to facilitate the 1982 AMTEC conference in Winnipeg.

June Landsburg, Conference Chairman of AMTEC '79 in Ottawa, works with some of the Special Interest Groups, is on the editorial board, and is working hard on a conference guidelines publication and a conference handbook to guide future AMTEC conference planning.

Tom Rich, a board member from Prince Edward Island, is editorial representative of AECT and to *Media Message*. He also keeps the board and the membership aware of national developments in satellite and network developments like Galaxie, and also liaises with designated Special Interest Groups.

Lou Wise, a board member from Toronto, has served AMTEC in many ways for many years, including a term as editor of *Media Message*. He is always a help to AMTEC in his many contacts in the metro area and often calls on the resources of his centre to assist the professional organization.

Mal Binks at St. Catherine's was a key organizer of the 1974 AMTEC conference at Brock University. He was also president of AMTEC before Larry Burt assumed office. Currently, he is carrying out an awards program which acknowledges leadership in the media field. He has also developed a certificate and lapel pin to aid in recognizing AMTEC membership and service.

Fred Branscombe, co-author of *Media Resources for Canadian Schools*, together with Harry Newsom who represented the Canadian School Library Association, continues to meet with the AMTEC Board as a past-president and a member interested in a number of issues facing the organization. One such issue is affiliation with AECT, based in the United States. The Board is currently considering the question of affiliation with the executive of AECT. A committee of AECT has been appointed to consider from their standpoint the terms and conditions of such an association. More specific information on this topic may be available after the AECT conference in Denver in April. Fred also invited Cec Wilkinson to the February board meeting, to discuss the authoring of a history of the media organizations in Canada.

Dick Morton, first president of AMTEC after it assumed its present name, also meets with the Board upon occasion. He is especially interested in copyright in Canada as it may affect educators and media personnel. He is keeping the Board informed on this issue, and the Board intends to keep the members at large informed when there are further developments in the field.

The above thumbnail sketches of those attending the board meeting in Toronto are admittedly incomplete in terms of a listing of all of the contributions of the current Board members. The activities

Editor's Comment

Richard F. Lewis

One of the most important areas in education is evaluation of learning experiences using media. Many professionals in our field had their initial training in non-print communication media such as broadcasting and film. Traditionally, these fields have not emphasized evaluation, relying instead on the artistic talent of the producer. Our field, however, emphasizes learning. In order for mediated materials to be recognized and accepted as an integral part of the curriculum, we must be able to demonstrate their effectiveness.

To many, evaluation smacks of testing. Visions of students filling little spaces, responding to millions of ambiguous questions immediately come to mind. Testing is a part of evaluation to be sure, but it need not be the only technique which is used. As professionals, we will have to develop evaluation procedures to suit the varied means and outcomes related to mediated materials. Recently, there have been signs of progress in this area.

Ed Palmer of the Children's Television Workshop developed a complete formative evaluation procedure to produce what must be one of the most successful children's programs. In his formative studies, Palmer used a variety of evaluation techniques, only one of which involved considerable testing. The Agency for Instructional Television and the Ontario Educational Communications Authority have also developed procedures for formative testing. It is time for producers of all types of instructional materials to develop formative techniques which will allow them to determine the potential success of a mediated message before it is released to the intended audience.

A useful model of evaluation for the producer of materials might be a four-step process which involves description of the material, a prediction of the success of the material, a simulated interaction with a learner and the actual field tryouts of the material. The description stage involves a thorough analysis of the material noting all elements of the instruction. The description might include a script of the material, the length of the presentation and any other relevant information. A complete catelogue of the information is necessary so that student learning can be correlated with specific points in the presentation.

In predicting the success of the material, an evaluator determines whether each of the objectives is likely to be achieved through interaction with the material. If no objectives are available, the evaluator can determine what the effect of the material is likely to be.

In a simulated interaction, the evaluator determines the actual responses of a learner who is a member of the target audience. Factors such as attention to the presentation, comprehension and opinion can be determined. Stop-action testing and interviews can also be used to find out audience reaction. Field tryouts use the same type of procedures as those used in simulated interaction.

The development and use of models such as the one proposed here will help media producers to determine and improve the effectiveness of their materials.

Evaluation is going to gain increasing importance over the next decade. While the sixties and seventies were periods of plenty, it appears that the eighties are going to be a period of restraint. Under conditions of restraint, instruction which is proven effective may replace instruction of potential but unproven effectiveness. Unfortunately, much mediated instruction falls into the latter category. If we expect to survive the eighties, evaluation will be an essential component of our field.

President's Message...

mentioned should give members an idea of some of the issues facing the Board and some understanding of the kind of person needed to provide leadership for AMTEC.

It's Your Turn

The men and women on you current board or working with it are among those trying to help AMTEC achieve its goals. They are following the tradition of a large number of Canadians who have each contributed to make media a more significant part of Canadian education. The other members of AMTEC are each contributing in his or her own way, partly by being members of the organization. Who would like to be further involved? Who, because of unique skills or insight and know-how or because of their experience should be in leadership positions? Those of you who know of such persons should let me know, or tell other board members, who will relay the information to the nominating committee for the next AMTEC election.

Special Interest Group - Media Instructors

Coordinated by
Clayton R. Wright

In most basic media courses, the emphasis is usually placed on practical, hands-on experiences. Yet, it seems rather ironic that although the courses *are about* media, the instructors *use* media, and the students are expected to *learn about* media, that a large proportion of the final grade is often based on paper and pencil written examinations.

Perhaps we should rethink our evaluation philosophies so that our evaluation procedures more accurately reflect our teaching styles.

Patterson, Freeman, *Photography for the Joy of It*. Toronto: Van Norstrand Reinhold, 1977.

Freeman Patterson, a Canadian photographer, has received worldwide acclaim for his photographs published in numerous books, magazines, journals, newspapers and advertisements. He is probably best known for his photographs displayed in the National Film Board's three best-selling books; *Canada: A Year of the Land*, *Canada* and *Between Friends/Entre Amis*.

From his vast experience Patterson has been able to assemble a short, informative and illustrated book, *Photography for the Joy of It*, that not only encompasses facts about the use of equipment and a description of photographic techniques, but also infuses the reader with the joy of photography.

The author states:

For me the joy of photography lies in being at ease with my camera, being keenly aware of things around me, and feeling free to photograph them as I please. It's not in being restricted by rules or formulas, by equipment and technical considerations, by subject matter or type of film, or other photographers and their work. It's in being myself and in making photographs that communicate what I see and how I feel about what I see. It's also in being disciplined — being thoughtful and deliberate about what I do that I capture the images I want.

The book lacks the technical details and textbook flavour often associated with those usually used for photography courses such as *Basic Photography* by M.J. Langford, *Photography* by Phil Davis, or *Photography* by Upton and Upton. Perhaps this is because *Photography for the Joy of It* was written for those who have only a rudimentary knowledge in photography and who want to make photographs solely for their own pleasure. It is probably not primarily suitable for those who want to become professional photographers. For this reason I would recommend that it be used in situations involving students in an introductory photo course, and particularly those in extension courses who want to better use their 35 mm single lens reflex cameras to take photographs, not snapshots.

In the limited space available it would be impossible to discuss all of the excellent fine points of the publication, but three outstanding features should be mentioned.

1. The text is simple and understandably written.
2. It contains many fine photographs which illustrate the points discussed in the text.
3. At the end of the book 50 handy tips are listed which will help the photographer to make the images he wants, and guide him in the use of photographs for both personal and commercial ends.

Abstracts of the papers presented at the Third Canadian Symposium on Instructional Technology have been compiled into one publication entitled *Programme and Symposium Digest*. For further information contact:

Jack Brahan
Information Science Section
Division of Electrical Engineering
National Research Council of Canada
Ottawa, Ont. K1A 0R8

The aims of this Special Interest Group section in *Media Message* are to exchange information on basic media courses and to improve the quality of teacher training in media use.

Anything of interest to media instructors should be submitted to:

Clayton R. Wright
Education North, B-125
University of Alberta
Edmonton, Alberta, T6G 2G5
403-432-4922

Special Interest Group — Media Instructors

Developing Individual Learning Modules for Audiovisual Communication

Figure 1.

Evaluation Factors in Media Course

	By Deadline	After Deadline
Introduction to Instructional Technology	30	20
Resources for Learning	30	20
*Projection Orientation	30	20
*Audio Orientation	15	10
*Audiovisual Equipment Operation	110	90
*Presentation and Maintenance Procedures	45	30
Sources of Resources	30	20
Analysis and Selection of Learning Resources	45	30
Real Things, Models and Mockups	15	--
Simulations and Dramatized Experiences	30	--
Community Resources	15	--
Display	30	--
Motion Pictures	30	20
Television	30	20
Still Pictures	30	20
Projected Still Pictures	30	20
Overhead Projection	30	20
Audio Utilization	30	--
Graphic Materials	30	--
Books and Printed Materials	15	--
Multi-Media Instruction	15	10
Perception, Communication and Learning	50	30
Media Utilization Design	75	50
Class Activities		
*Media Utilization Project.	200	--
Participation	100	--
Quest Topics		
Media Resource Support Services	30	--
Media for Individualized Instruction	30	--
Computers	30	--
TOTAL POSSIBLE	1180	--

*NO CREDIT FOR THE COURSE UNLESS THESE REQUIREMENTS ARE SATISFIED

James J. LaFollette

During the past decade and one-half, the delivery of basic instruction dealing with educational media and learning resources in the Faculty of Education at the University of Alberta has experienced significant change cycles. A comprehensive Part I — Part II arrangement (taking two 13-week terms to complete) was replaced in the early 1970's by two totally independent courses. "Audiovisual Communications" deals primarily with the effective utilization of prepared learning resources, while "Preparation of Instructional Materials" deals with processes for basic local production.

This paper deals primarily with the format of the basic audiovisual communication course.

In order to provide alternative modes of delivery for this basic course, new materials in various media formats are being developed. The emphasis has been on providing media for self-paced individual study, which will enable a student to achieve the objectives for a given course topic.

Study Guide

Between October 1975 and May 1977, independent study and/or group presentation media for approximately 15 course topics have been produced.

The study guide is a most important part of each unit. It may be considered a type of programming

device. Each study guide proposes to organize the instructional procedures for the student in order to provide maximum opportunity for acquiring the competence implied in the aims and objectives. Each study guide may be considered an integral portion of the total instructional product. The study guides could be duplicated separately and packaged as a module with the independent study media. At Alberta it has been effective to place them all in one manual and sell them to students at break-even cost.

While relatively unique study guide material has been developed for some course topics, the basic elements being developed for each topic are as follows:

AIMS: These are broad goals which summarize in general terms desirable outcomes. The aims represent skills and knowledge which ideally will be applied to instruction in a formal education setting. Students with other career objectives will normally find it necessary to adapt to their own situation.

STUDY REQUIREMENTS: The study requirements provide the student with an organized strategy for achieving the objective. Any readings which have been established as an integral part of the instructional product are listed. This section also lists and identifies by medium, the independent study media, primarily audiovisual in nature, which are available for individual study.

OBJECTIVES: The objectives indicate the required performance level upon which the assessment will be based. The objectives are intended to be realistically measurable within the context of the course structure and do not attempt to state skills and knowledge in terms of application in a future situation.

OTHER REFERENCES: These references provide additional breadth and occasionally more depth on a given topic. They are not recommended to students as part of their preparation for the topic assessment, but are only for students who genuinely wish to probe further into the topic.

INDEPENDENT STUDY MEDIA: This section lists and identifies by medium the program materials which are available for individual study. The majority of these materials are either slide-tape programs or videocassettes, which run from 7 to 29 minutes in length.

QUESTIONS FOR STUDY AND DISCUSSION: Each question is keyed to an objective and may be used for in-class discussion. The questions intended to be used by individual students when developing concepts and related intellectual skills.

TERMS: For most topics a list of terms is included as the first objective. The "Terms" section of the study guide provides a discussion of significant concepts related to the terms, not always a precise definition.

FEEDBACK: Each "question for study and discussion" is restated and discussed in terms of its relation to the broad topic and one or more specific objectives.

RESPONSE GUIDE: For several topics a response guide, which provides structured note-taking while using independent study media, is included.

The "Study Requirements" section suggests a sequence for using the above components of each study guide. Often this will consist of reading over the "Terms" discussion, and the "Questions for Study and Discussion" and "Feedback", then looking at an audiovisual program. After reviewing the "Terms" and "Feedback" the student is usually ready for the assessment.

Assessment

The final component of the complete instructional product for each topic is an objective assessment. The assessment consists of five or ten multiple choice items with one best answer. Students are able to take assessments whenever they are ready. However, experience has shown that it is necessary to establish reasonable deadlines spread throughout the course. At the present time a computer-assisted test administration system (CAT) is being developed.

Students may take assessments on one of three "Courier" visual display terminals. The items are scrambled on each presentation and the distractors are scrambled on each presentation. After each student has read and answered all items, the items may be presented again if the student so chooses. The student has the option of changing the answer, if desired. When a student indicates his final choice the correct answer is immediately presented. After completing the assessment, the student is presented with the total score for the test. Student scores

are stored for use in obtaining cumulative student and class records. Refinements, now under development, will permit item banks for each objective, thus presenting a different form of the assessment to each student. It will also be possible to provide "enhanced feedback" by providing a statement to the effect that the selected distractor is not as good an answer as the distractor identified as the best answer because ".....".

Grades

Grading is on a point basis. Points are awarded for the assessments discussed above, for completion of the self-instructional audiovisual equipment laboratory, and for an individual or group media utilization design project.

A number of factors helped determine the present content of the course. Course outlines used by a variety of instructors over a period of time, had in turn been influenced by the content of leading textbooks in the field. Meierhenry (1966) is a source which was consulted to help validate the approaches and content. Comparison with the competency chart developed by Lewis (1977) indicates that we are dealing with most of the areas indicated and others as well. As we move back toward an all-inclusive basic course in instructional media we will need to carefully select the competencies required and carefully select the competencies required and carefully determine the criterion level required to demonstrate competence as well.

Figure I provides a list of course topics as well as evaluation factors. Once a student's total points are determined, the total is noted against the nine-point scale used by the University.

While the approach may appear rather rigid at first glance, its modularized nature is actually facilitating a wide range of organizational patterns among the instructors teaching the course, including innovative instructor-student, student group and student initiated activities.

References

Meierhenry, W.C. (Project Director), *Media competencies needed by teachers in the use of the new media and various approaches to achieving them.* Unpublished document 1966.

Lewis, R.F. "An aid to teaching the basic course in instructional media." *Media Message*, Autumn, 1977.

James J. LaFollette is an Associate Professor in the Faculty of Education at the University of Alberta.

TEACHING BASIC SKILLS WITH FILM!

A 32 page handbook providing ideas and lesson plans for teachers working with students in vocabulary building, the use of quotations, sentence sense, writing dialogue and other basic communication skills. Useful for elementary and high school levels.

1 - 99 copies **$1.25 ea.;** 100 - 499 copies **$1.00 ea.** 500 copies **.75¢ ea.**

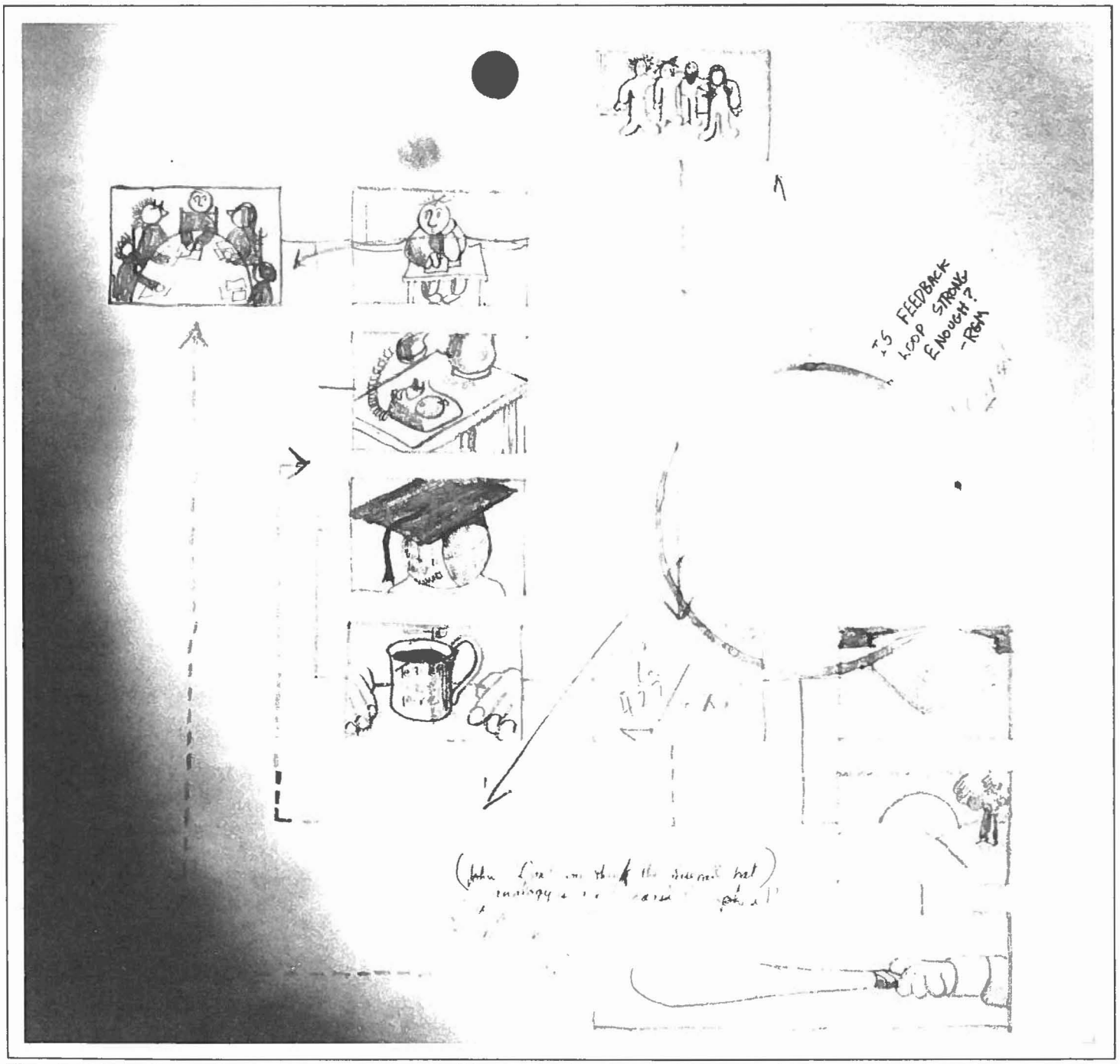
Remit payment with order.

FIRST 200 REQUESTS IN WRITING WILL RECEIVE A COMPLIMENTARY COPY.

MARLIN Motion Pictures
47 Lakeshore Rd. E. Mississauga, Ont. L5G 1C9 Phone (416) 278-5235

A Member of The Educational Media Producers and Distributors Association of Canada

Evaluation of Holland College's
Individual Learning System



Holland College is a vocational training institution offering programs at both the high school and post secondary levels in a number of centres across Prince Edward Island. The original campus was established in downtown Charlottetown in 1969, and this campus today is called the Charlottetown Centre. Most programs at the Centre are post secondary and all are competency-based. Their curricula are developed from analyses which identify the competencies or skills performed in relevant occupational fields. Resulting instruction is highly individualized.

Until 1978, formal evaluation of Charlottetown Centre goals and programs had been attempted by a variety of separate committees producing discrete instruments. Evaluation findings thus reflected these disparate methods.

The purpose of this article is to outline briefly Holland College's individualized learning system and then summarize the application and results of a comprehensive evaluation which provided data on the system's effectiveness.

The Learning System

Instructors at the Charlottetown Centre are considered to be managers of learning resources rather than to be the sole conveyors of information. As a result, each program has its own resource area containing learning packages for all curriculum competencies or skills, a variety of learning materials in both print and AV media, and necessary learning hardware.

Although students progress at their individual rates, group seminars and workshops are scheduled when expedient. After a learner feels that he can perform a particular skill or group of skills, he rates (evaluates) himself by means of a universal one-four scale, the criteria for which are based on industrial performance.

For example, a two rating means that an individual can perform a skill but requires some assistance or supervision. The three rating means that the skill can be performed satisfactorily without supervision or assistance. Most students obtain many one and two ratings since, realistically, those are the levels which new trainees in an occupation might expect to attain after about one year of training.

After the learner evaluates himself, he then has a rating session with the instructor who, based upon observation of student performance, may then confirm the rating. If there are differences of opinion, the issues are discussed and resolved before a confirmed rating is assigned.

A student must obtain a rating in a number of specified skills before being eligible to obtain the Holland College version of a diploma which is called a Record of Achievement. The "record" is actually a chart of the occupation's competencies and entered on it are the final ratings attained by the learner. Graduates are urged by the College to maintain the record by having skill ratings updated by an employer.

The College's system of individualized instruction or S.T.E.P. (Self Training and Evaluation Process), as it is also called, is presently being extended to the vocational high school programs in the other College Centres. What began as a radical but innovative approach to learning for just 14 post secondary secretarial students in June of 1970 will soon affect every vocational student in the province of Prince Edward Island.

CAPRI Evaluation

In the spring of 1978, Holland College's Charlottetown Centre conducted a comprehensive evaluation designed to determine the extent to which it was meeting its goals as a community college providing occupational training in applied arts, business, and technology. Also included in the evaluation instruments were items relating to the Centre's individualized learning system. At the time, Holland College was probably the first community college in the Maritime region to conduct such a thorough assessment of its goals.

The evaluation was an application of the CAPRI system of questionnaires developed a few years ago for Ontario's community colleges by Dr. Alan King of Queen's University in Kingston. CAPRI is an acronymn of College And Program Review Instruments, a set of two separate series of questionnaires, one to measure goal attainment and the second, specific programs.

The College Review Instruments applied by the Charlottetown Cen-

tre campus consist of 14 questionnaires which were answered by college full and part time staff; students including those presently enrolled, early leavers, and graduates; and community member groups such as the Board of Governors, employers of former students, advisory committee members, and secondary school guidance counsellors.

CAPRI Administration

Administration of the instruments was effected by a team of approximately 20 campus faculty members along with a few external volunteers from the community. A co-ordinator was appointed to direct the team. First, the wording in many instrument items was slightly revised to tailor them to Holland College's individualized learning system, were added. (The CAPRI design can accomodate minor alterations and additions.) Next, the questionnaires were administered to relevant groups on campus and mailings or telephone calls were made to external potential respondents.

With the exception of a telephone survey of 180 listed numbers in Charlottetown and immediate area, an attempt was made to reach entire populations such as all present students, recent graduates (called recognees at Holland College), and advisory committee members. The goal was not unrealistic since the Centre's full-time student population numbers only 600-700. More than 2500 potential respondents were contacted and replies obtained from over 1300. As well, almost 50 percent of those responding provided additional written comments.

The compiled raw data was treated by Dr. King and the result was a highly informative report of 66 pages. In addition, a 33-page report on the written comments was prepared by College faculty involved in the administration of CAPRI. Copies of both reports were given to every faculty member and, shortly after, the College's Board of Governors designated the CAPRI results as public information.

CAPRI Follow-up

A major strength of CAPRI's College Review Instruments is that they are not designed to single out individuals and so faculty members need not feel intimidated by the evaluation process as long as the results are provided to everyone concerned. This positive approach resulted in an enthusiastic desire on the part of the Charlottetown Centre faculty both to co-operate in the administration of CAPRI and then to study its results in a constructive manner.

Centre administrators capitalized on the positive feelings by scheduling a two-day summer workshop devoted to CAPRI findings and the outlining of an action plan for the reduction of identified weaknesses.

The CAPRI design also includes an optional Visiting-Team component. The team, composed of people from other colleges, is assembled for the purpose of validating evaluation results and clarifying the issues.

During a four-day period in January '79, a Visiting Team was at Holland College's Charlottetown Centre to study the CAPRI data already obtained and to conduct interviews with faculty, staff, and students as well as employers and government officials. Mr. D.B. Sutherland, President of Sir Sandford Fleming College in Peterborough, Ontario, was the team's chairman. The visit was climaxed by the presentation of a written report on the team's findings. In general, the report confirmed data obtained from the questionnaires and provided significant new stimulus for faculty to maintain campus strengths and reduce weaknesses.

CAPRI Results

It is not within the purpose of this article to provide a complete summary of CAPRI findings but rather to report the results of a few key questionnaire items which relate to Holland College's individualized learning system.

Both present students (April '78) and 1976-77 graduates of Charlottetown Centre occupational programs were asked to indicate the degree to which they preferred "the college's individualized system to the traditional teacher-centered system." Of the present students, 85 percent provided a positive response while 86 percent of graduates also responded positively.

In addition to recent graduates and present students, both college faculty and administrators were asked to indicate their degree of satisfaction with the implementation of the learning system. Once

again, responses were highly positive ranging from 81-86 percent.

The Visiting Team's report sharply parallels the highly positive responses provided by the data. The report begins: "The main impression that the visiting team has gained in the last few days is that a substantial majority of students, faculty, and administration at the Charlottetown Centre of Holland College are enthusiastically committed to the learning process which they have developed." However, the report goes on to add that in the case of a "few" programs criticism of the system was severe when team members interviewed a sampling of their instructors and students.

It is felt by some instructors that their occupational field does not lend itself to an individualized learning system and the Visiting Team's report suggests a possible connection between the negative criticism and the fact that some programs may not be suitably taught using an individualized learning system. On this topic, the report concludes that application of the system "for the sake of homogeneity" may indeed be detrimental.

Faculty, graduates, and students were also questioned on the usefulness of the occupational analy ses in helping students to identify their learning objectives. Responses were highly positive ranging from 79-90 percent. On the other hand, although 71 percent of employers indicated they were familiar with the occupational chart or Record of Achievement issued graduates, only 48 percent of graduates and 40 percent of faculty felt that employers were in fact satisfactorily familiar. The Visiting Team members also found that the majority of employers they interviewed did not really understand the competency chart.

Perhaps the ultimate measure of the success of Holland College's learning system may be found in the degree to which employers would hire more graduates assuming that positions were available. Seventy-eight percent responded positively while only three percent indicated "no" and 18 percent were uncertain. College faculty members are, in general, strongly committed to make the individualized learning system work and the CAPRI evaluation results have given faculty renewed determination. If a majority of the uncertain employers eventually respond positively to the question of hiring more graduates, the success of the system will become certain.

As stated earlier, almost 50 percent of CAPRI respondents provided additional written comments. Graduates especially made insightful remarks. One whose experience in the system was obviously not completely positive stated: "I really feel the 'individualized' system as it is applied at the College, or at least in my course, is much too lax. The idea of allowing a student to operate entirely under his own initiative seems very nice in theory but it is not realistic..." On the other hand, a second graduate commented: "For me the College provided an excellent starting point. I not only learned the skills necessary, but also discovered my ability to work and learn on my own, which I feel is an important factor for a successful career." Ensuring a similar learning experience for all students is the challenge faced by Holland College faculty.

Conclusion

Charlottetown Centre is presently (January '80) preparing to implement the second set of CAPRI instruments designed to evaluate specific programs. Since these instruments also allow for the addition of new items, more specific questions related to the College's learning philosophy will no doubt result in additional insights which will assist instructors to improve their implementation of an individualized learning system.

Finally, as a result of applying Ontario's CAPRI design, some members of the Holland College faculty will have acquired sufficient expertise which will someday aid them in preparing a new set of evaluation instruments designed solely to measure the College's specific goals and unique learning system.

Douglas Prokopec is curriculum planning consultant at Conestoga College, Kitchener, Ontario. He coordinated a CAPRI evaluation at Holland College, Charlottetown, P.E.I.

Reviews

Tom Rich

"TV & Kids: What Teachers Are Complaining About" (*Learning*, October, 1979) presents a fairly complete catalogue of the standard complaints about TV, particularly as they relate to the child's performance in school. These complaints are virtually all anecdotal and no measure of proof for television's casual role is provided. While I am not certain that the blame for all of the complaints listed should be laid at television's feet, it is at least worth considering the ways the TV contributes to them. Particularly helpful in this article is the inclusion of an example of what one teacher has done to help a fourth-grade class realize the amount of time they spend watching TV and provide them some reasons for engaging in other activities. Also included are suggestions for using various popular programs — "Mork and Mindy ", "Little House on the Prairie", etc. — in various subject areas.

"TV is Not the World" (*Columbia Journalism Review*, May/June, 1978) provides a well reasoned view of the principal criticisms of television while effectively making the point that television's effects must be viewed in the context of what has gone before and of other media that influence us. This article makes a particular point of suggesting the difficulty of singling out TV for criticism as a negative influence on society without also considering the role that other media — movies, newspapers, etc. — play and without considering the changes in our society that are unrelated to media. The author suggests that what is perhaps of most importance is our realization that TV is a commercial medium based on selling audiences to advertisers and that our governments have much power available to regulate broadcasting if we have the will to demand it. As a brief thoughtful analysis of the effects of TV in relationship to other influences on our lives, this article is strongly recommended.

"Television's Effects on Reading: A Case Study" (*Phi Delta Kappan*, June, 1978) provides a very comprehensive overview of some of the effects of TV on reading. The article draws its information from research on the subject and a number of suggestions on the potential for using TV to improve both the desire to read and actual reading performance are included. While not outlining a specific program for use in schools, the areas where TV may be of the most use and where it may cause the most problems are outlined.

Finally, I would recommend "An Activist Approach to Critical TV Viewing" (*Media and Methods*, October, 1978). This article outlines the need for and suggests activities to use in a curriculum in TV education. The activities are based on those used in a high school class but many are applicable to elementary levels where, as the author points out, the need is just as great. Suggested are ways to increase the students' awareness of what they watch and how much and the type of life and models that TV presents. Also listed are questions students should explore about the relationship of local stations to their communities and issues relating to freedom of speech. While not very detailed, the article is a very good summary of the type of things that should be dealt with in a TV education program.

Tom Rich is Media Coordinator with the Prince Edward Island Department of Education and a sessional lecturer in education at the University of Prince Edward Island. His responsibilities include in-service education in the use of media, consultation on purchase of AV equipment and production of media materials.

Guidelines for Authors

Media Message accepts papers dealing with the field of educational technology and learning: computer assisted instruction, learning resources centres, communication, evaluation, instructional design, simulation, gaming, and other aspects of the use of technology in the learning process.

Manuscripts should be typed on 8½ × 11 paper. All material must be double spaced. Include a title page stating title, full names of authors, identification of each author (position and institutional or other affiliation), and mailing addresses including postal codes for each author. References should be prepared according to the style suggested in the Publications Manual of the American Psychological Association.

Two typed copies of each paper should be submitted. Visual and graphic material is welcomed, however, it must be of good technical quality.

The *Newsletter* features a column called "Viewpoint" which focusses on a person or an issue. Items announcing conferences or other activities and publications of interest to members are welcome.

Manuscripts will be acknowledged as they are received and reviewed for publication.

Submission

Mail manuscripts to:

The Editor
Media Message
Atlantic Institute of Education
5244 South Street
Halifax, Nova Scotia B3J 1A4

Deadlines

Media Message	*Newsletter*
January 15	December 1
April 15	March 1
July 15	July 1

Microcomputers in the classroom.

Keep ahead of the class with a system that grows with you.

The Bell & Howell microcomputer system grows along with you. And that's important because different uses for the classroom microcomputer are developing everyday.

You can keep up by adding on memory storage as demands increase. The Bell & Howell microcomputer system will grow as fast as you do.

You can add on accessories like printers, recorders and color television screens. Or a simple yes-or-no switch that helps young children and handicapped students communicate easily.

Discover a new world with an old friend. Our education experts will demonstrate for you just how the Bell & Howell microcomputer system can handle today's job and the jobs of tomorrow.

For more information fill out and send in the coupon or give us a call.

BELL & HOWELL

Ask an education expert for a free demonstration.

I'd like to see the Bell & Howell microcomputer for myself.
☐ Please call.
☐ Send me more information.

Name _____

Title _____ Phone _____

Company _____

Address _____

City _____ State _____ Zip _____

AUDIO-VISUAL PRODUCTS DIVISION
230 BARMAC DRIVE WESTON ONTARIO M9L 2X5

AV 5014