

(Continued from page 21)

Goldberg, Marvin E., and Gorn, Gerald J. "TV's Impact on Preferences for Non-White Playmates: Canadian 'Sesame Street' Inserts." *Journal of Broadcasting*, 1979, 23(1), 27-31.

This study sampled 3-5 year old, white, upper middle class, (English) Canadian children in a large Canadian urban center. Regular program material (6 mins.) showed white children at play. Two CBC produced inserts (50 sec. each) showed Japanese-Canadian and native children at play. The control group was shown an animated cartoon (*Yogi's Gang*) without inserts. Immediate posttests showed that the experimental group increased their preference for non-white playmates. A 24 hour posttest showed a decline in preference. Controls for socio-economic background showed that 90% of lower middle class children preferred to play with white children. The authors suggest that TV may have more of an initial impact on upper middle class children in terms of positive socialization of race preference.

Gough, Pauline. "Introducing Children to Books via TV." *The Reading Teacher*, 1979, 32(4), 458-462.

The author suggests that TV motivates children to read if the medium is used appropriately, yet does not teach children how to read. This article provides several instructional methods of teaching/introducing specific books via TV.

Halpern, Werner I. "Turned-On Toddlers." *Journal of Communication*, 1975, 25(4), 66-72.

This article suggests that the fast pacing of TV, particularly *Sesame Street*, generates a sensory overload which, in some instances, has produced clinical disorders such as uncontrolled overactivity, prolonged sleep resistance and irritability in children. *Sesame Street's* use of intense visual and auditory patterns rapid perceptual shifts, and a studied avoidance of time lags to ensure maximum attention, inhibit the development of cognitive transformations, which are essential to normal development. The author cautions of potential sensory "overkill" of much of TV programming.

Hezel, Richard T. "Public Broadcasting: Can It Teach?" *Journal of Communication*, 1980, 30(3), 173-177.

The author suggests that goals and objectives for public broadcasting have not always been sufficiently established in advance and that, therefore, it is difficult to ascertain

the educational contributions of such programs. Conditions of presentation and utilization, which attract and maintain the attention of the target population, have not always been included in evaluations — thus, the instructional effectiveness of PBS programs is uncertain. PBS may be only "informing the already informed."

Hornik, Robert. "Television Access and the Slowing of Cognitive Growth." *American Educational Research Journal*, 1978, 15(10), 1-15.

This study shows that home TV use does not have a significant effect on school performance. The study sampled grade 7-9 El Salvadorean children over a two-year period. Three groups were isolated for study:

- a) never owned TV,
- b) always owned TV, and
- c) recently bought a TV.

Consistent negative effects on reading improvement was shown for all three cohorts. Also, significant negative effect on general ability growth was evident among those who always owned a TV. Those who recently acquired a TV showed a drop in general ability growth. This study found a 10% loss on reading scores for all three groups, which includes a 2-3 year gain (age/development) in reading scores minus the effects of TV viewing. This finding, Hornik claims, is "awesome" but not "worrisome".

Hornik, Robert. "Out-of-School Television and Schooling: Hypotheses and Methods." *Review of Educational Research*, 1981, 51(2), 193-214.

The author reviews six conventional hypotheses used to assess TV's impact on children vis a vis schooling. Most hypotheses have focused on "measurable" cognitive outcomes and have assumed a linear-effect approach. It is suggested that this research focus on the TV/children/schooling relationship limits the kinds of questions asked and outcomes anticipated. The measurable qualities of school performance constrain methodology, and preclude a range of alternative research approaches which might more adequately assess the very complex relationship between TV and children, and their schooling.

Lazarus, Morden, "TV - Ontario: Education with a Difference." *Canadian Journal of Communication*, 1978, 34-41.

This article discusses the function and structure of the OECA (Ontario Educational Communication Authority), currently Canada's major developer of educational media.

(To be continued next issue.)

Frank E. Murphy 1902 - 1982

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

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

During the war years Mr. Murphy served as film adviser to the Canadian

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

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

He served for sixteen years as the Nova

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

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

In 1978, at the annual conference of the Association of Media Technology in Education in Canada (AMTEC), Mr. Murphy was honored with a Leadership Award. It was presented in recognition of his efforts during the formative years of educational media, not only in Nova Scotia but across Canada.

Mr. Murphy passed away June 21, 1982, while visiting his family in Ontario.

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Dr. Denis Hlynka, Editor CJEC
Faculty of Education
University of Manitoba
Winnipeg, R3T 2N2



Jesus Vazquez-Abad
Student
3115 Edouard-Montpetit, Apt 1
Montreal
Quebec H3T 1K3

Elwyn Vermette
Media Specialist
P.O. Box 36
Yorkton
Saskatchewan S3N 2V6

Donald H. B. Vickers
AV Consultant
Winnipeg School Division 1
1180 Notre Dame Avenue
Winnipeg, Manitoba R3E 0P2

Rex Virtue
Prov. Pub. Rel. Committee
Manitoba Teachers Society
191 Harcourt Street
Winnipeg, Manitoba R3J 3H2

Al Wakarchuk
Prov. Industrial Training Cons
& Resource Development Officer
3650 Willingdon Avenue
Burnaby, B. C. V5G 3H1

Christine Warren
Assistant Sales Manager BBC
1220 55 Bloor Street West
Toronto
Ontario M4W 1A5

Emily Warriner
Teacher/Librarian
10 Ryerson Avenue
Winnipeg
Manitoba R3T 3P9

Helen Warwick
Administrative Assistant
20 Education Building
University of Saskatchewan
Saskatoon, Sask. S7N 0W0

The Waterloo County Bd. of Ed.
Learning Resources Department
Victoria School
25 Joseph Street
Kitchener, Ontario N2G 1H9

Ellen M. Watt
Assoc. Director Programming
Access Alberta
16930 114th Avenue
Edmonton, Alberta T5M 3S2

Dr. Norman Watts
Associate Professor
Acadia University
1009 Evangeline Court
New Minas, Nova Scotia B4N 3M4

Pauline G. Weber
Instructional Media Consultant
Halton Board of Education
8 3rd Side Road
Milton, Ontario L9T 2W6

Susan Weber
Film Librarian
Lethbridge Public Library
810 - 5th Avenue S.
Lethbridge, Alberta T1J 4C4

Dwaine W. Weese
1891 Wellington Crescent
Richmond
British Columbia V7B 1G6

David Weir
Media Specialist
Red Deer Reg. Hospital Centre
3942 50 A Avenue
Red Deer, Alberta T4N 4E7

Wellington County Board of Ed.
Education Library
500 Victoria Road North
Guelph
Ontario N1E 6K2

Jude White
220 Hamilton Avenue
St. John's
Newfoundland
Canada A1E 1J7

Dr. Ray Whitley
5250 Spring Garden Road
Halifax
Nova Scotia
Canada B3J 1E8

J. C. Whyte
Learning Materials Centre
S.D.&G. County Bd. of Educ.
902 Second Street West
Cornwall, Ontario K6H 5S6

Tomasz Wiclawski
AV Technician, Media Services
R.C.M.P. Academy
P.O. Box 6500
Regina, Saskatchewan S4P 3J7

Cecil E. Wilkinson
Educational Media Consultant
100 Quebec Avenue
Toronto
Ontario M6P 4B9

S. Dawn Wilkinson
Coord. Consumer Comm. Branch
Man. Con. & Corp. Affairs
1023 - 405 Broadway
Winnipeg, Manitoba R3C 3L6

Harvey Williams
Professor
Faculty of Education
University of Manitoba
Winnipeg, Manitoba R3T 2N2

Brian Willoughby
Dept. of Public Works & Hwys.
P.O. Box 2000
Charlottetown
Prince Edward Island C1A 7N8

Alan Wilmott
School District 62
2227 Sooke Road
Victoria
British Columbia V9B 1W9

Don Wilson
Supervisor of Programs
858 Glenmore Drive
Kelowna
British Columbia V1Y 4N9

Laura R. Winer
Department of Education, H 549
Concordia University
1455 de Maisonneuve Blvd. West
Montreal, Quebec H3G 1M8

William Winn
Learning Technology Unit
Faculty of Education
University of Calgary
Calgary, Alberta T2N 1N4

C. Bruce Winsor
Supervisor Instructional Media
Newfoundland Dept. of Educ.
951 Charter Avenue, St. John's
Newfoundland A1A 1R2

Lou T. Wise
8 Teal Court
Don Mills
Ontario
Canada M3A 3C3

Kenneth G. Wolfe
AV Resource Teacher
127 Arrand Crescent
Saskatoon
Saskatchewan S7M 5A3

Ed Wong
Coordinator AV Services
Okanagan Regional College
1000 K.L.O. Road
Kelowna, B. C. V1Y 4X8

Diane Worsley
Educational Consultant
Sask. Dept. of Education
2220 College Avenue
Regina, Saskatchewan S4P 3V7

Clayton R. Wright
9307 86th Street
Edmonton
Alberta
Canada T6C 3E6

Elwy Yost
TV Ontario
Canada Square
2180 Yonge Street
Toronto, Ontario M4S 2C1

Wanda Young PhD
College of Home Economics
University of Saskatchewan
Saskatoon
Saskatchewan S7N 0W0

Boris Zawadski
Sheridan College
Trafalgar Road
Oakville
Ontario L6H 2L1

Arlene Zuckernick
Coordinator Distance Education
Univ. of Victoria Extension
P.O. Box 1700
Victoria B. C. V8V 2Y2

William Zuk
41 Richardson Avenue
Winnipeg
Ontario
Canada R2V 2N3

Editor
Denis Hlynka
University of Manitoba

Editorial Review Board
Richard Schwier
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Terry Kolomeychuk
National Film Board
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Calgary Board of Education
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University of Manitoba
Sid Greenstone

Printers
Christian Press
Winnipeg

ET: The Educational Technologist

The movie of the year, as every film buff knows, is *ET: The Extra-Terrestrial*. To those of us in Educational Technology, the use of "our" initials is mildly amusing. Indeed, one cannot help but speculate on the possible similarities between ET the extra-terrestrial and ET the educational technologist. Whether the current film can actually be considered a metaphor for the educational technologist is a question deserving at least a passing thought.

What are the similarities?

Most important, ET the extra-terrestrial is from another planet, another world, and another civilization. ET the educational technologist is likewise often perceived as being from "another world" . . . a world of gadgets, of machines, and of high technology. Indeed, as high technology reaches higher, the gap between the educational practitioner and the educational technologist correspondingly widens, increasing the otherworldliness of the technologist. (See however this issue's *opinion* column for an alternative discussion on this idea.)

Second. Although ET the extra-terrestrial comes apparently from a super-

technologically developed society (How else could he have gotten to earth?), nevertheless he is what we would call very "human", and in fact subject to the most basic of human needs: food, shelter, and love. ET the educational technologist . . . that's us . . . is, underneath, very human, too. Unfortunately it usually doesn't show, and we tend to come across as mechanistic, lost in boxes and arrows, behavioristic in the worse connotation of the term, cold, and ugly.

Of course, there are always individuals who have the gift of penetrating a tough exterior and are able to recognize strength, beauty, and true worth. In the case of ET the extra-terrestrial, it was first the young boy, then his sister, then the rest of his family. In the case of ET the educational technologist, recognition of our true worth is on equally tenuous grounds. It comes sometimes from students, who have experienced a sudden insight perhaps from our film or video productions; sometimes from a few parents who recognize the role of media in the modern world as a basic; sometimes even from our colleagues who may see media in education as more than a means to an end, but as an integral com-

ponent of twentieth century society.

Something missing?

But somewhere the metaphor breaks down. ET the extra-terrestrial seems to have come to grips with the environment in which he exists, and finally can function willy-nilly at a human level, as well as his own level of high technology.

ET the educational technologist has not yet come to grips with his basic problem. ET the educational technologist is still dazzled by flashing lights, gimmicks, and computer games and all the dangling promises which machine technology offers education. ET the educational technologist has not yet recognized the subtle, but powerful, link between science and art. Educational technology in Canada today seems to be most concerned with the gadget technology and its application to education. We are excited about satellites, videotex, computers, videogames, the integrated video terminal, and the like. We choose to ignore the warnings of Ned Ludd and his followers who in the early 1800's in Nottinghamshire rose up *en masse* against the new technology which threatened to put people out of work and to change the quality of life. These so-

called Luddites were concerned, of course, not with our educational technology, but the far more pragmatic installation of knitting machines in textile factories. Nevertheless, similar warnings are being voiced today.

The pendulum swings

Yet perhaps a change is in the wind. We are beginning to see signs that the push towards "science" as the ultimate answer, exclusive of the "arts," is wrong. The "basics" should not be interpreted to mean how to read a program in BASIC. The basics must include the development of aesthetic appreciation of the arts, and of the artistic way . . . what Matthew Arnold has termed "the best that is known and thought in the world."

The swing of the pendulum to an acceptance of education as an art form is not yet significant enough to be called a trend amongst educational technologists, yet the first signs are there. While high technology captures the modern imagination, voices of moderation are being heard over the din. Schumacher has coined a counter phrase of "intermediate technology." In *Small is Beautiful*, Schumacher devotes a full chapter ex-

amining education, and suggests that science and engineering are not enough. Science and engineering he argues, produce "know-how", but know how contributes no more to culture than does a piano. For a piano to have any meaning, we need the program, the music, the concerto, yes, the software. Technology leaves us up-in-the-air . . . unfinished. Can education help us, asks Schumacher, to finish the masterpiece?

Chemist-philosopher Michael Polyani, working independently, has pointed out the gap between fact and value, science and humanity, and suggests the need of a **Personal Philosophy** which includes recognition of the "tacit dimension" of learning and of knowing.

The theme is, of course, a favorite one of fiction. ET is only the latest attempt to explore the depths of the relationship of art and science. EM Forster's *The Machine Stops*, and Kurt Vonnegut Jr.'s *Player Piano* are both exemplary and well known. The latter author chooses the metaphor of a map to separate art, science and technology:

Illum, NY is divided into three parts. In the northwest are the managers and engineers and civil servants and a few

professional people; in the northeast are the machines; and in the south, across the Iroquois River is the area known locally as Homestead, where almost all of the people live.

The problem expressed by Vonnegut is the lack of art, that element which unites abstract knowledge and human feeling, and provides the bridge between north and south Illum.

Educational technology as art

It is not enough to look at educational technology as an interaction between hardware and software. It is no longer sufficient to say that all that is needed for educational technology to take off is good software. Those represent only two sides of the trilogy. The forgotten element is art. Educational technology is doomed to failure until the synergistic interaction between art, hardware, and software becomes a matter of course.

At this juncture in the history of educational technology, we need less of TRON and its mechanistic world of cold computer programs which can do anything, even take over the world. Instead, we need more of the humanistic ET whose major concern, all his technology notwithstanding, is simply to phone home. □

OPINION

Congratulations on becoming editor of CJEC. Now, having congratulated you, I would like to take exception to the general outlook to communications media you seemed to convey in your first editorial. You pictured "Everyman" as facing a bleak communications landscape of alienating and overwhelming technology.

First, I would like to summarize a series of events or realities that lead to my more optimistic conclusions which follow. The first reality is the increasing restrictions placed on communications technology by budgets. Money in the hands of consumers is still quite available. Money in the hands of school boards and government agencies is decreasing with little chance for turnaround. Thus individuals can't look to institutions for leadership in communications technology. A good example is that more people seem to be taking courses on microcomputer operation from local businesses than from local community colleges.

Recently the Saskatchewan Audio Visual Association met and changed its name to the Saskatchewan Association for Media and Technology. This seemingly auspicious event was dimmed when the nominating committee could not produce a new slate of officers. Other individuals have indicated the organization has outlived its usefulness.

As past and continuing president, I might regard these downers for our association as my responsibility, but being both egotist and optimist I have to find some other conclusion.

There is a third event that has focused my attention in positive directions. Our communications staff has agreed to write a chapter on communications for a Canadian Society of Extension Handbook. In trying to subdivide communications into reasonable subdivisions it seems that many once useful distinctions are breaking down. For example the lines between print and non-print blur as videotex begins to occupy the television screen with a mix of text, graphics and still visuals. Word processing continues the blurring process with the easy interchange between video-display terminals and paper as information carriers.

A final happening was my assignment to work with Telidon and evaluate its implications for agricultural extension. Of course this new responsibility carries no additional budget or major relief from other responsibilities.

The above occurrences get repeated over and over for people in the communications field, and we can get discouraged. If we are climbers, and if we felt that our university degrees were going to provide a position of leadership and

control in the communications field, there is reason for such discouragement.

Ten years ago, many of us felt we were already leaders destined for higher things. Now many of us are unable to travel and increase our expertise, we are unable to produce meaningful materials in any volume, we are unable to purchase the materials of others and we find that individuals with little or no formal background are leading us. This is illustrated when we go to non-communication events and find communications technology being applied in ways so far beyond our budgets, we can't hope to compete and we do get discouraged.

You suggest that it is "Everyman," known in less "genteel" circles as the "great unwashed," who feels alienated and bombarded by "too much too soon." I would suggest that, on the contrary, "Everyman" is coping rather well.

The kid with his Atari video game doesn't feel bombarded. The kid who trades his video game for a personal computer doesn't feel bombarded; nor does the parent who out of sheer enjoyment joins the kid in chasing ghosts or bashing aliens. It's the media specialist with his ten year old degree in audiovisual communications who feels bombarded.

You further suggest that the "big media" connotes so called high technolo-

gy, and that the "Manipulation, production, and understanding of high technology is no longer within the reach of Everyman". The whole question, of course, is, when has the manipulation, production and understanding of communications been in the reach of "Everyman"? When could "Everyman" write a poem, confidently compose a series of meaningful sentences, or produce a quality visual?

I am presently providing a series of workshops to department of agriculture professional staff. Cameras and slide projectors are sometimes mysteries and certainly the process of scripting is beyond most of their present capabilities. Even many specialists in media have very little creative sense. "Everyman" can ask a question of the old technology. "How can I get a book published?" The answer is "not very easily." Yet in Saskatchewan "Everyman," using new "high technology," can join a computer club called "The Source" for \$100.00 a year. He can write poetry and receive royalties from readers as widely separated as Greenland and Texas. These readers, using data phone lines can access this poetry quickly and cheaply within minutes of the poem's final composition.

New technology has the magic of moving "Everyman" from the role of passive receiver to interactor, controller

and even producer. The reality of this magic is underlined, not refuted, by the uneasiness and sense of loss perceived in the role of media specialists such as myself. Some of us will stay tightly locked in our more or less secure jobs becoming increasingly removed from communication realities. We will play out our Willie Loman roles to our own personal loss and the detriment of the profession. Others of us will adapt to the changes. We may have learned some things from the past which will be of continuing value. If we haven't, we will do what many others have had to do and that is start all over and build with what is left to us. Only a few of us will starve in the process.

What has happened in computers is happening in communications. It is very doubtful that the spread of video games and microcomputers has made "Everyman" more alienated and threatened.

In communications we package information in a few ways only. We have written words, spoken words, still visuals and motion visuals. Alienation occurs from communications when the individual loses control and loses access.

New technology doesn't change the basic ways of packaging information. New technology makes it easier for "Everyman" to do the packaging. Can we doubt, for example that in a few years the

rich kid on the block will have access to the family video camera and editor? Can we doubt that this kid will gather the gang to do a production? These kids are the real "Everyman," not the media co-ordinator on the block who just lost a repair budget for the local school board's 16 mm projectors.

1984 should dawn rich with potential for "Everyman." As media specialists faced with crumbling I.M.C.'s and a "lights out" mentality on the part of politicians funding education, libraries and other knowledge broker enterprises, we still have responsibilities. Our first responsibility is to forget about managing and controlling the technology.

That role is now as dated as saber teeth. The problem of using technology for quality communications is still with us though, and some of us should be able to make the transition from hardware handlers to message managers. This transition will take some time until "Everyman" with easy personal access to hardware recognizes a message vacuum and begins seeking ways to fill it.

Jim Burk
Supervisor: AV Services
Saskatchewan Agriculture
3085 Albert Street
Regina, Saskatchewan
S4S 0B1

Visual Design in Distance Education

By David Kaufman, Saeko Usukawa and Denise Sketches

This paper provides a brief overview of the Open Learning Institute and outlines the course development process used. The visual design process is then described and examples are given of several different approaches used to generate visual ideas. Finally, a two-dimensional model is given for classifying visuals according to the function (instructional, motivational and directional) and mode (drawing or photograph). Examples are then given of visuals in both modes created at the Institute which fulfill various functions.

Establishment of the Open Learning Institute

The Open Learning Institute (OLI) is a relatively new, public, distance education institution in Canada. It was established by the British Columbia Provincial Government in June 1978. The Institute has a broad and challenging mandate to perform the following functions:

- (1) (a) provide programs of study leading to a first degree in Arts and Science;
- (b) provide programs of study in career, technical and vocational areas and; adult basic education.
- (2) The Institute shall manage needed support services, develop and acquire courses, programs of study and learning materials and distribute them by distance education methods.

Many definitions have been given for the term "Distance Education". In this paper, the term is used to mean an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner. The purpose of the Institute is to provide these services to, amongst others, geographically or socially isolated adults across the Province of British Columbia.

It should be pointed out that the Institute was created in a context of distance

David Kaufman is currently the Director of Educational Technology at the Open Learning Institute of British Columbia. He is examining the role of communications and computer technology in distance education. He did his undergraduate and masters work in electrical engineering at McGill University before entering the field of education in which he completed his doctorate in 1973 at the University of British Columbia.

Enrolments	— September 1979 — 750 enrolments
	— January 1980 — 2,400
	— Fiscal 1980-81 — 7,500
	— Fiscal 1981-82 — 11,000 (predicted)
Students	— Two-thirds are between ages 25-40.
	— Two-thirds are women.
	— Two-thirds are from non-metropolitan regions.
Courses Available	— September 1979 — 7 credit courses
Most developed in-house)	— January 1980 — 37
	— September 1980 — 52
	— January 1981 — 64
	— September 1981 — 85
	— January 1981 — 85
Programs	— Adult Basic Education: Grade X completion; Grade XII completion.
	— Career/Technical/Vocational: Nine certificate programs:
	— General — Office Management
	— Construction Management — Secretarial
	— Industrial Supervision — Electronics
	— Motel Management — Restaurant Management
	— University: Bachelor's Degree: Eight academic concentrations:
	— Economics — Sociology
	— History — Geography
	— Psychology — Mathematics
	— English — Biology
Student Support Services	— Seven Regional Advising Centres throughout British Columbia
	— Tutors for each course, mail and toll-free telephone contact
	— Library "hot-line"
Staff	— 106 regular and 23 temporary employees (in-house)
	— Approximately 100 tutors and 67 coursewriters and consultants

Saeko Usukawa is editor with Douglas and McIntyre, a Canadian publisher in Vancouver, British Columbia. She was formerly a course designer at the Open Learning Institute of British Columbia, and specialized in the design of technical and adult basic education materials.

Denise Sketches is a visual designer at the Open Learning Institute of British Columbia and is particularly interested in the use of visuals to aid learning. She has an associate arts diploma in graphic and communicative arts from Douglas College (B.C.) and has recently completed her B.A. at the University of Winnipeg.

education projects existing in Canada and throughout the world. In Canada, we can point to Athabasca University, the Télé-Université, North Island College, and the University of Waterloo Correspondence Division. Internationally, the best known institution is The Open University in Britain. Other notable institutions include Everyman University in Israel and the University of Mid-America in the United States.

Current status of the Institute

Table 1 provides a summary of the status of the Open Learning Institute as of January 1981. It is clear from these data that the Institute has grown very rapidly since its inception.

Details regarding the establishment of OLI and the decisions which have led to its current status have been described earlier (Mugridge, 1981).

Components of an OLI Course Package

OLI courses are paced home-study courses. Students are mailed packages that contain all of the necessary materials for a particular course. An OLI course package consists of a number of components, as shown in Figure 1. Some components are produced at the Open Learning Institute and others are purchased. It is unlikely that all the components listed would be part of a particular course package.

The majority of courses developed at the Open Learning Institute are based on a particular textbook. The learning units provide the needed support to students for working through the textbook. A number of OLI courses are "stand-alone" courses. That is, they are self-contained courses in which the learning units serve as the textbook in addition to the other functions outlined in Figure 1. For example, one OLI electricity course contains about 400 pages and 175 visuals. Since the development of a stand-alone course is a major undertaking, every attempt is made to identify suitable published material.

Course development at the Institute

Course development at OLI is based on a course team approach. Each member of the team performs a particular function, but often contributes ideas and expertise in several areas. This leads to carefully designed, developed and produced course materials which have benefited through contributions by several individuals. The course team members and their functions are given in Table 2. Figure 2 illustrates in a general way the course development process at the Institute.

Visual design at the Institute

The visual design process at the Institute can be thought of as having two elements: page design and visual support of text material.

This paper deals mainly with the visual support aspect of visual design. However, a few words are in order about page design.

Page Design

Page design refers to the particular configuration of text and visuals placed on the page. It includes decisions about typeface and typefont, number of columns used and the width and depth of these columns, as well as size and placement of visuals. The outside and inside covers, copyright and acknowledgments page, and contents page also require their own particular specifications.

University courses use a Times Roman typefont in 10 point while the Adult Basic Education and Career/Technical/Vocational areas use Univers Type in 12 point. All three program areas make use of a predetermined set of heading sizes. A single column page layout is employed with large margins to accommodate visuals, labels and to allow students to make notes. However, the Institute is actively researching page designs in order

to expand its repertoire in the near future.

Visual Support of Text

Since June, 1979, more than 3,000 illustrations and 400 photographs have been produced at the Institute. Currently, more than 500 copyrighted photographs have been used (with permission) in OLI courses. Some pertinent questions have been addressed as a result of these activities. What teaching role do these visuals play in course materials? What are the benefits of using the course team approach to visual design? How does the visual design process function at the Institute?

Role of visuals: The role that visuals play in course materials is a crucial issue for course designers and visual designers. Unfortunately, detailed guidelines for the effective use and design of visuals is scarce. Holliday (1973) has concluded that:

Because of the complexity and almost infinite interrelationship among varying picture types, subject content, presentation formats, and individual learner characteristics, specific prescriptions for instructional designers unfortunately are not available. (p. 211)

Course Team Member	Main Function
Course Writer	— Prepares course material
Consultant	— Ensures academic acceptability and transferability outside of OLI
Program-Co-Ordinator (and/or Director)	— Ensures internal academic acceptability and articulation with other OLI courses
Course Designer	— Edits and instructionally designs material, and co-ordinates development of the course at OLI
Visual Designer	— Designs and develops visuals for course
Copyright Officer	— Advises course team members about copyright and applies for copyright clearances
Pilot Student (when available)	— Works through drafts of material in developmental stage
Scriptwriter and/or Producer	— Works on preparation of audio script for studio recording

More recently, Broudy (1981) noted that his examination of related literature revealed that there have been few attempts to examine closely the relationship between pictures and learning from instructional texts. Nesbit's (1981) view is that the increased use of illustrations in educational materials is more often based on common sense guidelines and artistic notions than on experimental evidence. Duchastel (1980) concluded that research has had relatively little impact in the practical area of text illustration. He did argue, however, that research has been useful in specific areas such as supporting the value of illustrations in assisting learning (in a number of studies), showing that there may be some danger in the improper use of illustrations. He also argued that the value of illustrations for motivational purposes must be accepted on intuitive grounds—and not unreasonably so. This particular view has been prevalent at the Open Learning Institute during these early years of course development. The assumption has been made that visuals are inherently useful for instructional as well as motivational purposes.

Visual design process: At present, the visual design process is primarily concerned with the design and development of visuals to support text material.

The prime responsibility for managing the visual design process rests with the course designer. The responsibility for controlling the creative design rests, of course, with the visual designer. The purpose of the design stage is to decide on the nature and placement of visuals in a particular course component (usually a unit). This stage usually involves input from several members of the course team. The development stage then involves illustration, photography or the acquisition of visuals that were decided upon in the design stage.

The major benefit of using the course team approach to visual design is that it makes effective use of the Institute's instructional resources to produce instructionally valid and technically accurate visuals. The wide variety and scope of courses offered by the Institute necessitates a flexible process for the development of visuals. For instance, the courses range from introductory to advanced levels in science, humanities, technical and business courses. No two courses, therefore, have the same needs and requirements. And each course must be designed to be instructionally sound as well as visually pleasing. The visual design process often varies according to the type of course.

In a technical course such as electronics, the coursewriter usually initiates the visuals. He or she is the subject area specialist, knowing what the student has to learn and the added knowledge of the visual conventions of the particular subject or trade. In technical courses, the coursewriter first indicates or sketches out rough comprehensive drawings of the

technical information to be illustrated. Then the coursewriter, consultant and course designer check, edit and approve the proposed visuals. Once the proposed visuals are approved, they are passed on to the visual designer, who corrects and transforms the edited rough comprehensives into finished visuals. Although there is some latitude for creativity in the manner of presentation, the visual designer must assure complete design consistency throughout a course and adhere to technical and house style conventions.

In a humanities course such as psychology or sociology, the visual designer often initiates the visuals. He or she reads through the manuscript and suggests possibilities for visuals. These concepts are considered by other members of the course team. The visual designer may present these ideas in a number of ways, such as thumbnail sketch, a written description or a combination of both of these. The ideas for the visuals may be modified, adopted or dropped during discussion by the course team. Once the course team has approved the proposed visuals, the visual designer transforms the ideas into finished visuals. Also, in many cases, permission is obtained for the use of copyrighted visuals which meet the design requirements of a particular course.

In many areas all members of the course team participate in the visual design of the course. For instance, in a career course such as Business Management and Principles, the course team often works together on the visual design. Sometimes the coursewriter may suggest a concept that he or she wishes to illustrate. This concept may take the form of a very rough drawing or a written description. The visual designer then considers the coursewriter's idea and renders a more complete rough, which is then discussed with the course team. At other

times, the course designer will determine that an illustration is necessary to clarify a point in text and will present the concept to the course team for discussion. Once all the ideas for visuals have been approved, the visual designer prepares the finished visuals.

In summary, there are no clear rules for designing visual material at the Open Learning Institute, but there are definite styles or approaches used. This flexibility has proven to be successful thus far in maintaining the tenuous balance between creativity and productivity.

The examples in Figures 3 & 4 illustrate two approaches used in the visual design process at the Open Learning Institute.

Classification of visuals

There have been several attempts at establishing frameworks for classifying visuals. Knowlton (1966) provided a lead in this regard by classifying visuals as either realistic, analogical, or logical. Twyman (1979) more recently proposed a scheme that consists of a matrix with one dimension describing the methods of configuration of graphic language and the other dimension describing modes of symbolization. Duchastel (1980) pointed out that there has been little enthusiasm for these classification schemes, perhaps because of difficulties of basing taxonomies on the physical attributes of visuals rather than their communicative intent. He suggested that it would be more useful to use a functional approach to classifying visuals. This approach is primarily concerned with the function of a visual, while the appearance of a visual is of secondary concern. In his functional scheme, illustrations are considered as having attentional, explicative, and/or retentional roles. Duchastel more recently (1981) reported on a study from which he concluded that illustrations can influence retention even when they have no influence on immediate recall. He called for

pertinent theoretical elaborations and empirical studies in the area. Levin (1979) also developed a functional approach to research on visuals, and his scheme identifies eight different functions that visuals play in text.

MacDonald-Ross (1977), in an important review paper, has explained that the knowledge we have about the use of graphic devices is derived from two sources: the expert practitioner and the formal scientific study. These are two quite separate traditions, and yet it is necessary to bring them together for their mutual benefit. He has argued that despite his sceptical outlook about the research tradition, there is, in fact, a surprising stock of knowledge available and he has listed some of the more important sources in his paper. More concrete guidelines are available for effective visuals in scientific and technical subjects, and particularly in representing quantitative information. Wright (1977) has provided some useful guidance in these areas. Because these areas are better developed, guidelines provided by Wright and others have been particularly helpful in designing visuals for the technical and scientific courses developed at the Institute.

The present paper draws upon the work of MacDonald-Ross (1977) who suggested a set of purposes that he thought could be used to develop a more sophisticated classification. His categories of purpose are: iconic, data display, explanatory, and operational. These categories form the basis of the scheme suggested in the present paper.

The classification schemes are useful in guiding research in this area. However, they are also useful in indicating to the course team the various possibilities available through the visual medium.

In order to examine the various types of visuals used in OLI course material, we have classified them according to their purpose and mode. Figure 7 shows the scheme used for classifying visuals. Definitions of the terms used in the figure are then given.

Instructional: To assist learning by providing information in a visual manner or by clarifying the text material.

Iconic: To show what an object looks like, and to identify and label key parts.

Data Display: To display the results of empirical observations.

Explanatory: To show the logical relationships between key ideas.

Operational: To help the reader to perform some well-specified task.

Some diagrams have a single purpose, but others combine two or more. For example, mathematical diagrams can be both explanatory and operational (algorithms); biological diagrams can be both iconic and explanatory (physiological diagrams); technical drawings can be both iconic and operational (maintenance diagrams).

Motivational: To indirectly assist learning by keeping the student interested in the text, e.g. cartoons, pictures of famous people, pictorial settings. These visuals help the subject matter to "come alive", but are not intended to directly provide instructional material about the subject matter.

Directional: To provide symbolic cues which help guide the student through the text and supporting course material.

Mode

Mode refers to whether the visual is in the form of an illustration (drawing) or a photograph. At the present time, the majority of illustrations are prepared by visual designers at the Institute. Although the Institute shoots many of its own photographs, the majority of photographs are copyrighted works obtained from outside sources (with appropriate payment and acknowledgement given).

The following examples illustrate the two modes of visuals (illustrations and photographs) as they serve a number of purposes (instructional, motivational and directional).

Examples of Visuals

An iconic visual (Figure 6)

This iconic visual is taken from a social studies course for grade 10 completion. The learning unit it appears in is entitled "Consumer economics". This visual shows the student what a monthly revolving charge account statement looks like. In fact, it is a reproduction, reduced in size, of an actual charge account statement. The key parts of the statement are labelled and identified for the student.

A data display visual (Figure 7)

This data display visual is taken from a social studies course for grade 10 completion. It is a graph showing the percentages of hidden taxes in the pump price of gasoline. Notice that the graph is in the shape of a gasoline pump. This is an interesting way to present this type of data to a student at this level. This same information in a more conventional table or graph would not be as attention-getting or as memorable.

An explanatory visual and a directional visual (Figure 8)

This explanatory visual shows the balanced relationship between the body's intake and loss of water. It also shows the factors involved in intake and loss. Note the directional visual that appears in the left-hand margin. This particular directional visual alerts the student to do part of an assignment. The Open Learning Institute has developed a library of directional visuals of this type, alerting the student to experiments, audiotapes, readings, etc.

Figure 1. Structure of an OLI course

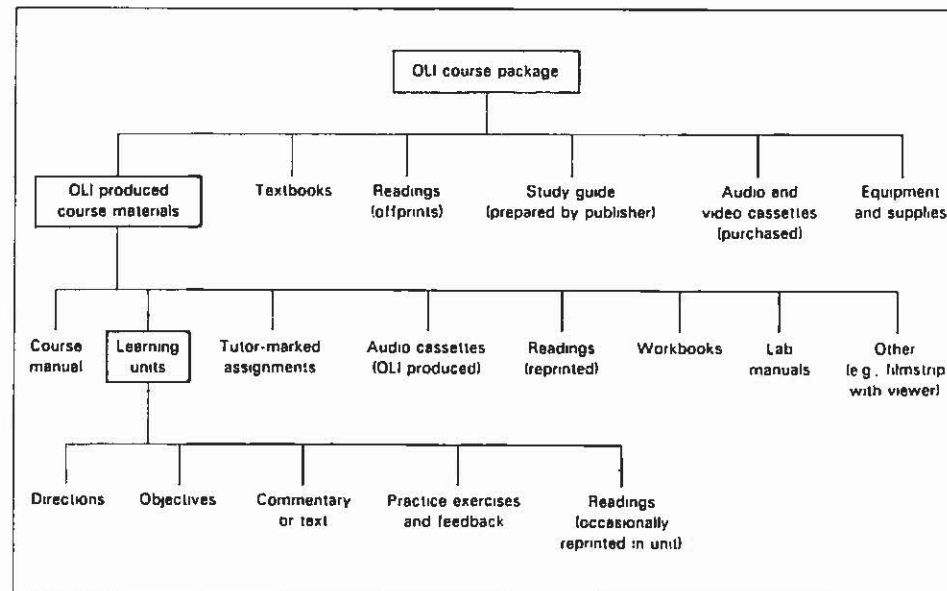


Figure 2. OLI course development process

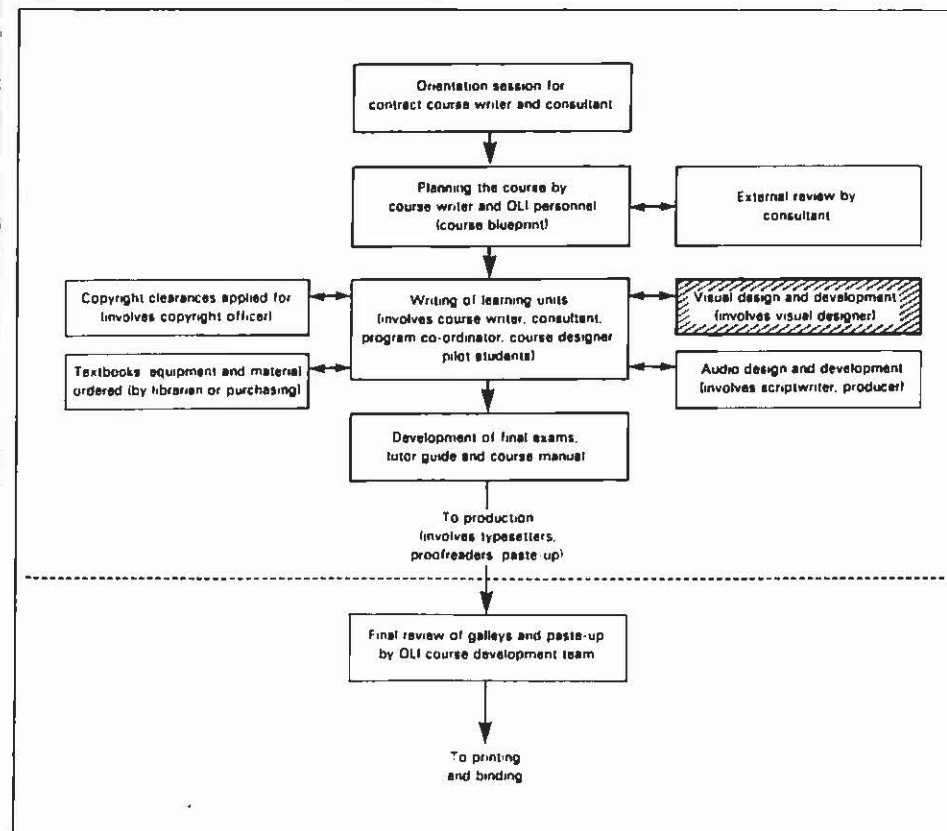


Figure 3. The concept of systems from a business management course

"The coursewriter presented the visual idea with the drawing of the concept of systems shown in Figure 3a. The visual designer then "worked-up" the coursewriter's idea, as shown in the finished illustration in figure 3b."

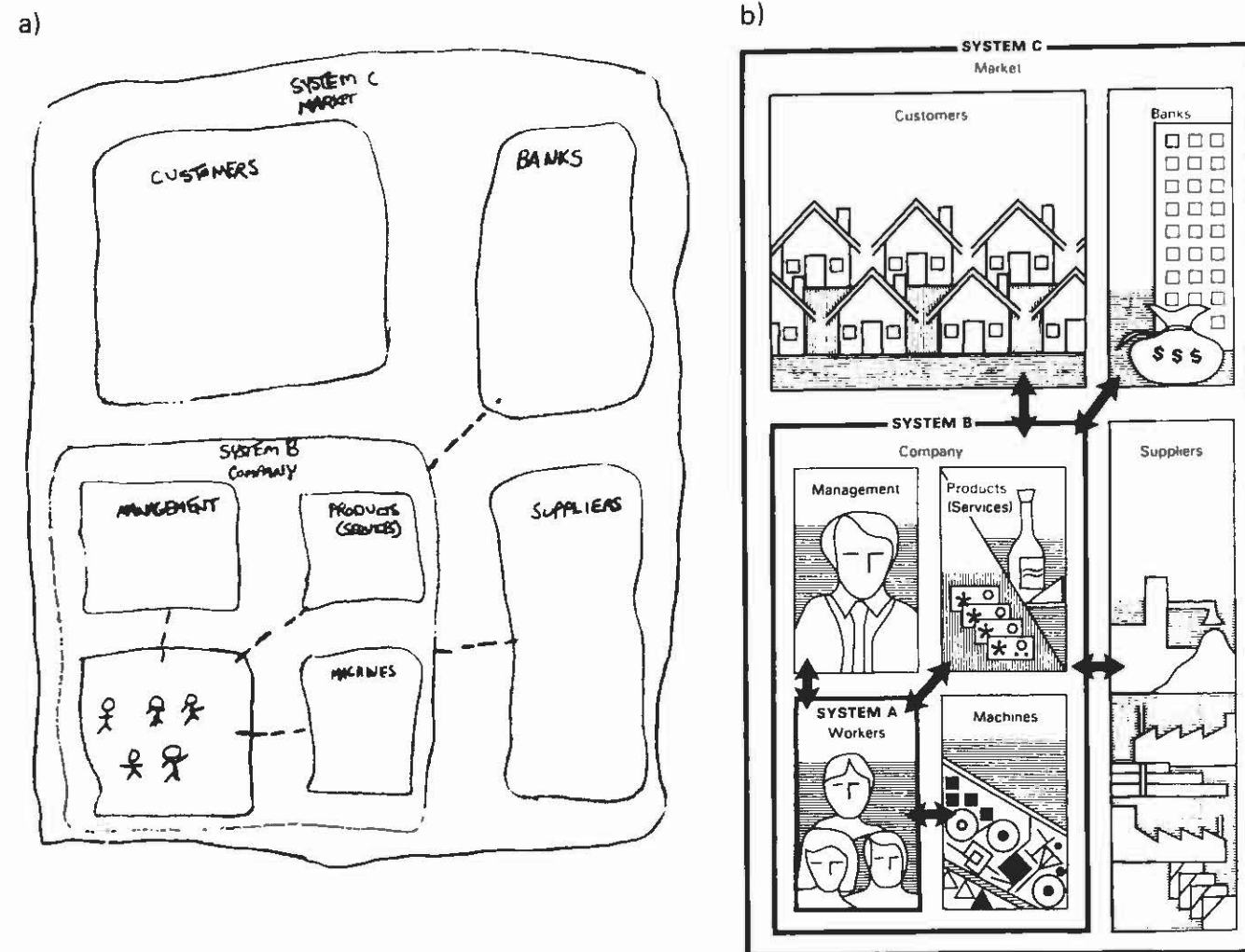



Fig 15 Systems

Figure 4. An illustration of dissonance from a business management course

"The visual designer read the coursewriter's manuscript and conceptualized a visual (Figure 4a) which later appeared in finished form in the learning unit as shown in Figure 4b."

a)



or frustrated or anxious? (Maybe because it was a case it wasn't real enough to bother you). However, most people in real life when faced with a hard decision get a "funny feeling" or anxiety which is called "dissonance". Dissonance is the uncomfortable feeling which people experience when no perfect solution exists for a problem and they must choose an imperfect alternative. Remember the last time you made a major purchase, a purchase such as a house or car. If you had more than one alternative did you try to weight the advantages and disadvantages of each? Did this only seem to make it harder to choose?

b)

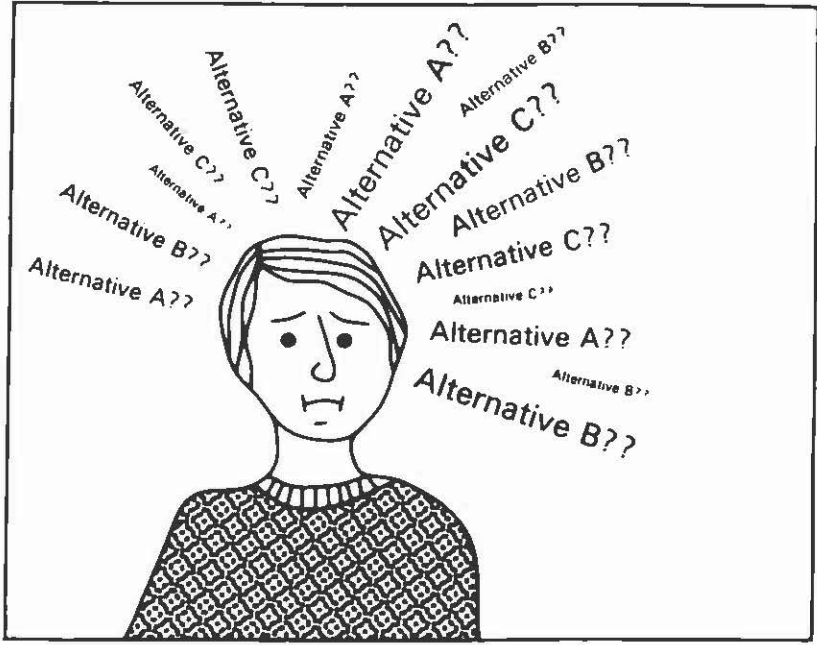


Fig. 2.11. Dissonance

Operational visuals in two modes, illustration and photograph (Figure 9)

The upper visual is a top-view photograph from a basic electronics course. It shows the student the correct positioning of the components involved. The lower visual is a cutaway illustration of the same operation involved in the photograph and also shows the student the correct positioning of the components involved. The use of both modes make the operation very clear to the student.

A motivational visual (Figure 10)

This motivational visual is taken from the cover of a university geography course. It shows a graphic view of the four regions of Canada. Motivational visuals are often used within courses as well as on the covers of learning units.

An iconic and operational visual (Figure 11)

This visual is taken from a basic business management course. The visual is both iconic and operational. It shows the key documents involved in a cheque transaction and the procedures to follow in accepting a cheque.

Conclusions

This paper has described the process of visual design used in the development of distance education courses at the Open Learning Institute, a newly created

distance education institution with an extremely broad and challenging mandate. This process allows for the integration of the expertise of each member of the course team in a manner that preserves the balance between creativity and productivity. The result of this process is a course that is visually rich in its use of illustrative material which serves instructional, motivational and directional purposes for the learner.

REFERENCES

Broudy, P.J. Research on pictures in instructional texts: the need for a broad-end perspective. *Educational Communication and Technology Journal*, 1981, 29(2), 93-100.

Duchastel, P. Illustrating instructional texts. *Educational Technology*, 1978, 18(11), 36-39.

Duchastel, P. Research on illustrations in the text; issues and perspectives. *Educational Communication and Technology Journal*, 1980, 28, 283-287.

Duchastel, P. Textbook illustration: research and instructional design. In J. W. Brown (Ed.), *Educational Media Yearbook*, 1980a, 58-63.

Duchastel, P. Illustrations in text: a retentional role. *Programmed Learning and Educational Technology*, 1981, 18(1), 11-45.

Fleming, M. Classification and analysis of instructional illustrations. *AV Communication Review*, 1967, 15, 246-256.

Knowlton, J. On the definition of "picture". *AV Communication Review*, 1966, 14, 157-183.

Levin, J.R. On functions of pictures in prose (Theoretical Paper No. 80). Madison, Wis.: The University of Wisconsin, Wisconsin R & D. Later for Individualized Schooling, 1979.

MacDonald-Ross, M. Graphics in texts. In L. Shulman (Ed.), *Review of Research in Education*, 1978, 5, 49-85.

Mugridge, I. The establishment of a new distance education institution: The Open Learning Institute of British Columbia. *Distance Education*, 1981, 2(1), 98-109.

Nesbit, L.L. Eye appeal versus educational relevance in the selection of educational visuals. *Educational Technology*, 1981, 21(1), 45-46.

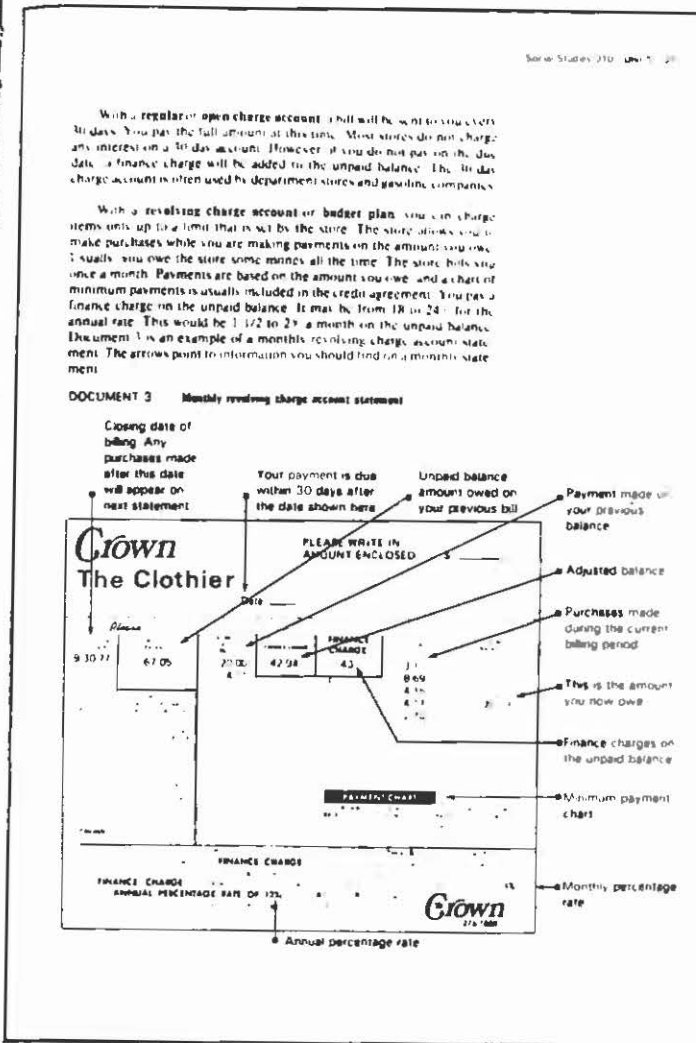
Twyman, M. A scheme for the study of graphic language. In P. Kolars, M. Wrolstad, and H. Baouma (Eds.), *Processing of Visible Language* (Vol. 1). New York: Plenum, 1979.

Wright, P. Presenting technical information: a survey of research findings. *Instructional Science*, 1977, 6, 93-134.

Figure 5. Scheme for classifying visuals

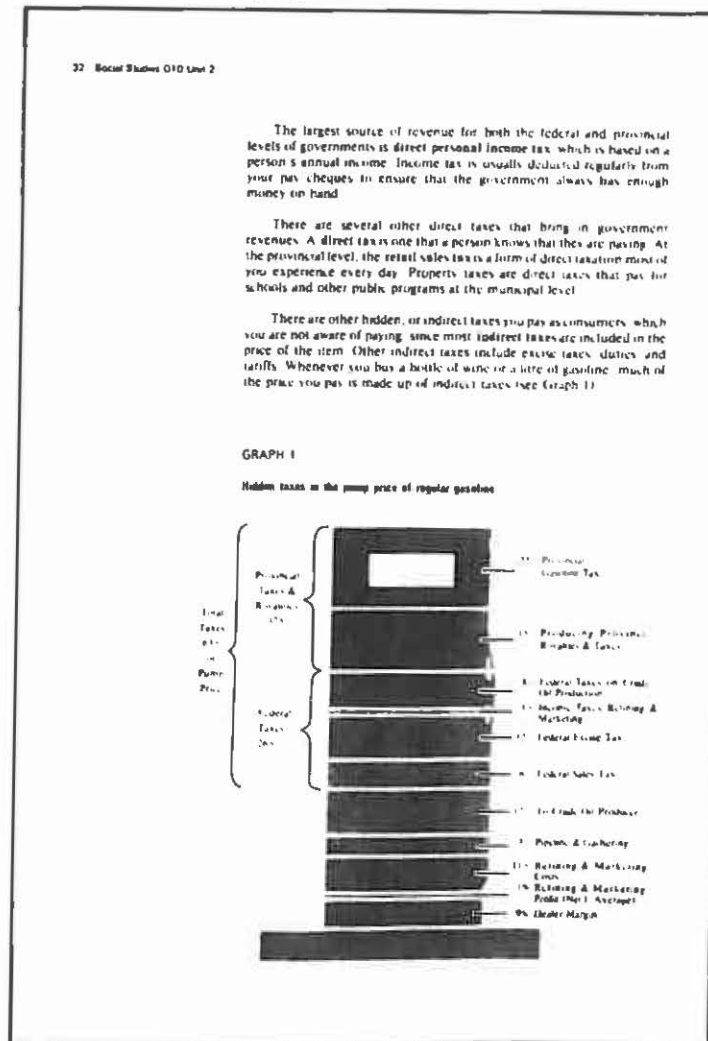
		MODE	
		Illustrations	Photographs
PURPOSE	Instructional	Iconic	
		Data display	
		Explanatory	
		Operational	
Motivational			
Directional			

Figure 6. An iconic visual



"This iconic visual is taken from a social studies course for grade 10 completion. The learning unit it appears in is entitled "Consumer economics". This visual shows the student what a monthly revolving charge account statement looks like. In fact, it is a reproduction, reduced in size, of an actual charge account statement. The key parts of the statement are labelled and identified for the student."

Figure 7. A data display visual



"This data display visual is taken from a social studies course for grade 10 completion. It is a graph showing the percentages of hidden taxes in the pump price of gasoline. Notice that the graph is in the shape of a gasoline pump. This is an interesting way to present this type of data to a student at this level. This same information in a more conventional table or graph would not be as attention-getting or as memorable."

"The upper visual is a top-view photograph from a basic electronics course. It shows the student the correct positioning of the components involved. The lower visual is a cutaway illustration of the same operation involved in the photograph and also shows the student the correct positioning of the components involved. The use of both modes make the operation very clear to the student."

Figure 8. Explanatory and directional visuals (the directional visual is in the left-hand margin)

14 Science 010 Unit 2

NORMAL WATER BALANCE IN BODY

Water is important to the body because many substances will dissolve in it. Chemical reactions between substances usually take place only when they are in solution that is dissolved in a liquid. The nutrients in the body cells must be in solution for the life processes to go on.

When dissolved in water, substances can also move in and out of cells through the cell membranes and can be transported round the body as, for example, in the circulatory system you studied in Unit 2.

Now turn to the Assignment File and carefully read the instructions on the front of the file. Then do Part 3 of Assignment 1.

Food for control

Let us now consider certain nutrients that are essential for regulating the processes that go on inside your body.

We have already discussed the importance of the minerals iodine and iron. You will recall that they are essential for regulating the "burning of fuels" reaction (respiration) which takes place in the body cells. Other minerals, vitamins, and water also play vital roles in regulating various body processes.

Figure 9. Operational visuals in two modes, illustration and photograph

After one or two seconds (no need for a stopwatch!) of this "pre-heating" touch the end of the solder to the joint as shown in Figure 1 14

The solder should melt almost immediately and flow around the joint. It is unlikely that more than 1-2 mm of solder need be melted to form a good connection. See Figure 1 15

Tip heats both lead and foil. Solder flows smoothly and evenly around joint, adhering to foil and lead.

Figure 1-15 CORRECTLY POSITIONED IRON TIP

"This explanatory visual shows the balanced relationship between the body's intake and loss of water. It also shows the factors involved in intake and loss. Note the directional visual that appears in the left-hand margin. This particular directional visual alerts the student to do part of an assignment. The Open Learning Institute has developed a library of directional visuals of this type, alerting the student to experiments, audiotapes, readings, etc."

Figure 10. A motivational visual

6.106, 471

Regional geography of Canada II

Course manual

"This visual is taken from a basic business management course. The visual is both iconic and operational. It shows the key documents involved in a cheque transaction and the procedures to follow in accepting a cheque."

Figure 11. A visual that is dual-purpose, iconic and operational

BRSM 12 1984

Credit cards

Credit cards are normally used at the retail level of business, although some trade suppliers issue their own cards as a promotional and record-keeping tool.

Read this section then turn to the text and read pages 237 to 241 (top) in your textbook.

Credit cards are perhaps the best sales tool a small retail business can have if it is dealing in fairly costly items. Credit cards are a way of life and fewer and fewer people are carrying large sums of money around with them. You may be willing to accept cheques but you may find that cards have their place.

40

By Carmen Luke

PART II (Continued from the last issue)

Lee, Barbara, "Prime-Time in the Classroom." *Journal of Communication*, 1980, 30(1), 175-180.

It was found that script reading prior to televiewing enhances reading interest and critical viewing skills in the classroom. Script reading with TV use in the classroom can motivate children to read more outside the classroom, and provides potential opportunities for parental involvement: parent/child viewing, discussions, book acquisition/reading. *The Corn is Green* was used in this study. 262 teachers and 921 students (gr. 7-12) at 97 metro (U.S.) schools were interviewed about results.

Liebert, Diane E., Sprafkin, J.N., Liebert, R.M., and Rubinstein, E.A. "The Effects of TV Commercial Disclaimers on the Product Expectations of Children." *Journal of Communication*, 1977, 27(2).

The authors found that a standard disclaimer (e.g., "partial assembly required") was "totally ineffective" in communicating the message to children in the age range for which it was intended. When the disclaimer was rephrased ("it must be put together before you can play with it"), 100% of sampled children understood the message — as distinct from 65% understanding the original message. The authors suggest that appropriate wording is crucial for children to understand messages directed at them — particularly toy commercials.

Lind, Loren. "Could ETV Be Made To Work?" *The Intermediate Teacher*, 1979.

This article documents the use of ETV in Ontario, Alberta and British Columbia. It is shown that there is a general decline in teacher use of ETV. Elementary school use shows the most drastic decline, whereas high school uses shows a slowed increase.

Medrich, Elliott A. "Constant TV: A Background to Daily Life." *Journal of Communication*, 1979, 29(3), 171-176.

This study sampled 764 eleven and twelve-year olds in Oakland, California. 60% of the sample were black, 24.2% white, the rest of Hispanic and Asian ethnicity. Results showed that one-third of inner city families are constant TV households. Low income/educational households comprise the majority of constant TV households. Children from these households are less successful at school and are more likely to watch without parental supervision.

Miller, Mark M., and Reeves, Byron. "Dramatic TV Content and Children's Sex Role Stereotypes." *Journal of Broadcasting*, 1976, 20(1), 35-50.

Links between specific TV content and sex-role perception are examined. It was found that heavy TV viewers (K-6) have more sex-typed perceptions than light viewers. When children viewed reversed sex-role types (occupational), it was found that these children were more likely to endorse women in male occupations than the group not exposed. In all categories it was found that men hold dominant power positions; women are portrayed as low status in all categories. Since children value same sex behavior because they are rewarded for it, since they imitate models similar to themselves, and since there is evidence that children do nominate TV characters as figures to emulate, the authors suggest that TV strongly reinforces existing sex-role stereotypes and conventional family structures.

Moody, Kate. *Growing Up on Television: A Report to Parents*. New York, N.Y.: Times Books, 1980.

The physical effects of habitual televiewing on eye movements, on brain waves, and on hand and body movements are discussed. Moody examines TV's impact on child viewers in relation to schooling, to the family, and to the self. Current research is cited and a useful list of references is provided.

Morgan, Michael. "TV Viewing and Reading: Does More Equal Better?" *Journal of Communication*, 1980, 30(1), 159-165.

The author found that students who are heavy TV viewers read more but comprehend less. There is a qualitative difference in the materials read by heavy viewers — much of this material reflects common TV program content. Heavy viewers consistently read fewer newspapers than light viewers. During early adolescence students are either heavy viewers or heavy readers, not both.

Morison, Patricia; McCarthy, Margaret; and Gardner, Howard. "Exploring the Realities of TV with Children." *Journal of Broadcasting*, 1979, 23(4), 453-463.

This study found that the ability to distinguish between reality and fantasy of TV programming was not correlated to the amount or variety of TV watched but, rather, correlated to age.

Murray, John P., and Kippax, Susan. "Children's Social Behavior in Three Towns with Differing Television Experience." *Journal of Communication*, 1978, 28(1).

The impact of TV on social engagement is examined. Three towns, similar in size and social structure, were sampled:

- High TV Town — 5 years TV experience
- Low TV Town — 1 year experience
- No TV Town — no experience.

It was found that the "novelty effect" of a new TV displaces social engagements/activities. Outdoor activities are replaced by indoor activities. Children from Low and High TV Town were observed to eventually re-engage in social activities much like those of No TV Town children. The authors suggest that "TV, although an initial displacer of social engagement, may ultimately foster increased interpersonal contact by serving as a focal point for shared activities."

Neuman, Susan B. "Television: Its Effects on Reading and School Achievement." *The Reading Teacher*, 1980, 33(7), 801-805.

A summary of recent research on TV and reading achievement is presented. Ten studies which employed a variety of variables are examined. None of these studies show significant negative correlations between TV and reading achievement. It is suggested that children and TV enter into an already existing pattern of influences which impact on reading achievement more substantially than TV alone. Further research is suggested into TV content choice and reading choice.

Neuman, Susan B. "Listening Behavior and TV Viewing." *Journal of Educational Research*, 1980, 74(1), 15-18.

This study sampled 200 preschoolers to examine the relationship between listening and televiewing. The objective was to determine "if the amount and content viewed affected the growth and development of listening behavior." The results showed that TV amount was not a significant factor in the improvement of listening skills. TV content, however, yielded a negative association between amount of news and documentaries watched, and listening scores.

Palmer, Edward, and Dorr, Aimee. *Children and the Faces of Television: Teaching, Violence, Selling*. New York, N.Y.: Academic Press, 1980.

This book takes an unprecedented interdisciplinary approach to three central issues as noted in the title: teaching, violence, and selling. Part I introduces the section on instructional TV with an historical perspective on ETV, and subsequent papers deal with the uses and evaluative problems of ETV. Part II is concerned with questions of TV violence in relation to the child viewer, and concludes with a discussion of the implications for government and industry policy. Part III deals with TV advertising and the social effects on children. The collection of contributions are well organized and present a broad and informative perspective by combining research from a variety of disciplines.

Olson, David. "The Consequences of Television." *Interchange*, 1981, 12(1), 53-60.

The logical relations between TV's symbol system and its referents, and the social relations between the message producer and the consumer are discussed. It is suggested that the propositional equivalence between referent and TV's symbolic representation differs from the print/referent equivalence. The author agrees with McLuhan that specific media "bias" knowledge. Our cultural predispositions towards print may be altered by TV's iconic codes which transform both the structure of knowledge and our processing skills into forms more closely tied to visual imagery and oral language. The TV message producer and consumer exist in an inequitable relation; a minority elite selects and controls information consumed by a vast public. The immediacy of spoken word with visual image which, unlike print, cannot be "re-read," invents TV with unprecedented power by rendering it "above criticism." Like the "ephemeral nature of speech," TV's form inhibits critical comment.

Peters, F.J.J. "Printed Messages in American Commercial TV and the Reading Teacher." *Journal of Reading*, 1979, 22(5), 409-415.

This study found that TV commercials assist in the development of reading skills. Commercials are the primary source of print on screen. Reports show that children who read before entering Kindergarten, do so, in part, because of exposure to print on TV.

Rice, Mabel, and Wartella, Ellen. "Television as a Medium of Communication: Implications for How to Regard the Child Viewer." *Journal of Broadcasting*, 1981, 25(4).

The authors argue against traditional research on TV and children which has tended to place the viewer in a passive, inactive role. It is suggested that the child viewer actively processes TV codes and messages. Three representational codes are proposed: a) iconic, b) media-specific, and c) generic, which co-constitute the message. This interactive model suggests that children's active participation with the medium influences subsequent interpretation and understanding of TV's messages.

Robertson, Thomas S. "Parental Mediation of Television Advertising Effects." *Journal of Communication*, 1977, 29(1).

The author shows that children purchase requests vary with age and, to some extent, social class. Children are more likely to request products frequently consumed by them which, coincidentally, are the same products advertised on Saturday a.m. programs (toys, cereals). Children's requests for products generate parental socialization and

consumer training. Conflict and disappointment is a frequent affective consequence when products are not purchased. The author suggests that research in this area is lacking and that an "enriched mediation model" of TV effect is needed to account for the complex set of familial, situational and socioeconomic factors which influence purchase requests.

Robertson, Thomas S., and Rossiter, John R. "Children's Responsiveness to Commercials." *Journal of Communication*, 1977, 27(2).

The authors suggest that heavy TV viewers are generally more persuadable than light viewers. Age, peer pressure, amount of TV exposure, and parental attitudes influence a child's persuadability. Age is the most important dispositional factor.

Rubin, Allan. "Television in Children's Political Socialization." *Journal of Broadcasting*, 1976, 20(1), 51-59.

This study sampled 1976 seventh graders in urban high schools. Three variables were assessed:

- children's principal source of information,
- amount of TV exposure,
- type of TV exposure.

It was found that heavy TV viewers exhibit low levels of political information. Children who view more public affairs programs exhibit higher levels of political information and awareness.

Rubin, Allan. "TV Usage, Attitudes and Viewing Behaviors of Children and Adolescents." *Journal of Broadcasting*, 1977, 21(3), 355-369.

This study found that age is a consistent indicator of viewing habits: preference, attitude and motivation. It is suggested that, in early childhood, TV satisfies social needs which alter with age and lead to decreased viewing during adolescence. Young children watch twice the amount as adolescents. TV provides pseudo-friendship for the young viewer which generates parasocial interaction. Non-purposive viewing was found to be habituated across all age groups. Older children's altered social demands decreased viewing time and decreased the influence of TV as a reality factor.

Rubin, Allan. "Child and Adolescent TV Use and Political Socialization." *Journalism Quarterly*, 1978, 125-129.

This article presented similar information as noted in Rubin's earlier *Journal of Broadcasting* (1976) article. Adolescents who watched increased amounts of public affairs programs expressed less political cynicism. It was also found that younger children do not exhibit the same political attitudes as were identified in studies of the mid/late 1960's. Young children were less loyal, trusting and emotionally attached to the nation (U.S.).

Saldich, Anne Rawley. *Electronic Democracy*. New York, N.Y.: Praeger Publishers, 1979.

Saldich examines the impact of TV on the American political process. The "tyranny" of TV is examined in light of its universal and pervasive impact on all aspects of socialization: values and belief systems, attitudes and behaviors, and ideology. The covert control of government in (de) politicizing a mass audience through the medium are discussed. The authority, credibility and "intimacy" of TV information are seen as key factors in the nationwide acquiescence to the historically unprecedented institutional power of TV.

Salomon, Gavriel. *Interaction of Media, Cognition, and Learning*. San Francisco, Cal.: Jossey Bass, 1979.

Salomon discusses how the non-content dimensions of media affect cognition. He suggests that a medium's form, the symbolic codes used to present content, makes use of existing cognitive skills, or develops particular skills with which to process visual (TV) information. Salomon's central thesis is that learning from a specific medium is determined by the triadic interaction of:

- a) the nature of the symbol system,
- b) the experience the processor has with that system, and
- c) the situation (or task) within which the symbol system is encountered.

The implications for education are that cognitive performances are differentially affected by different media. As such, learning and the development of particular cognitive skills are directly linked to amount and type of exposure to different media, as well as the task towards which televiewing is directed.

Salomon, Gavriel. "Media and Symbol Systems as Related to Cognition and Learning." *Journal of Educational Psychology*, 1979, 71(2), 131-148.

The general nature of symbol systems is described. Theoretical considerations relate systems to cognition and learning. Empirical research shows that symbol systems vary in content, kind of knowledge presented, and mental skills required. Studies are described which show that media facilitates certain mental skills which interact with individual differences and processing levels. Two cognitive processes are explained:

- a) overt supplantation — TV models cognitive transformation skills which children imitate and internalize.
- b) activation of (mental) skills — visual/auditory codes and cues signal or activate a requisite skill.

Salomon proposes a triadic interaction model of cognition, learning and TV:

- a) individual cognitive makeup,
- b) TV content — message and symbol system,
- c) learner's task or goal perception.

Salomon suggests that different symbolic codes require "shallow" or "deep processing" skills. TV tends to require shallow processing as distinct from the cognitive skills required for reading text.

Salomon, Gavriel, and Cohen, Akiba A. "Television Formats, Mastery of Mental Skills, and the Acquisition of Knowledge." *Journal of Educational Psychology*, 1977, 69(5), 612-619.

This study demonstrated that when TV formats varied, with content held constant, learners' use of mental skills and the acquisition of knowledge was differentially affected. It was also found that different formats (codes) can either activate a skill or supplant it. Skill supplanting gives learners with a lower skill mastery "a more even start." Learners' task perception was also found to influence the use/activation of mental skills.

Salomon, Gavriel, and Cohen, Akiba A. "On the Meaning and Validity of Television Viewing." *Human Communications Research*, 1978, 4(3), 265-270.

This article examines the "construct validity" of TV viewing. It is suggested that TV viewing has numerous meanings and human behavioral/interactive implications. Four conceptualizations of TV viewing are presented, each of which imply a different construct (hence, measure) of viewing:

- a) socio-situational factor — implying choice between activities,
- b) transmission of content — implying decision-making processes in regard to which messages to

select and respond to,

- c) source of content-messages — dealing with recall, comprehension, attitude change,
- d) TV as "language" — processes of encoding messages for extracting knowledge.

Salomon and Cohen emphasize that amount of TV viewing is only one general measure which cannot be equally valid for all measurement purposes and valid within all frames of references.

Schiller, Herbert. *Communication and Cultural Domination*. White Plains, New York: International Arts and Sciences Press, Inc., 1976.

Schiller offers a critical analysis of the cultural imperialism of First World telecommunication systems. He describes the process of cultural domination, its constitutive elements and discusses its mechanism of extension in terms of the cultural contacts between people and societies. First World (primarily U.S.) media dominate developed and developing countries.

Schuetz, Stephen, and Sprafkin, Joyce N. "Portrayal of Prosocial and Aggressive Behaviors in Children's TV Commercials." *Journal of Broadcasting*, 1979, 23(1), 33-40.

This study examined the prosocial and aggressive content of child-oriented commercials on Saturday a.m. programming. All the aggression was found to be performed by male characters. Breakfast cereal commercials contained more aggressive acts than any other category; adult product commercials and public service announcements contained the least amount of aggression. Commercials contain three times the amount of aggressive acts than regular programming. Aggression dominates the "symbolic world of TV", and since children were found to portray more aggression than adults, the authors suggest that such conditions "are optimal for child viewers to be affected by the presentations" — particularly, because children attend more closely to TV child characters.

Sheikh, Anees, A., and Moleski, M. "Children's Perception of Value of an Advertised Product." *Journal of Broadcasting*, 1977, 21(3), 347-354.

The authors investigated the persuasive nature of commercials. Sex difference in children's perception of product value was examined. 68 white, middle class, urban children were studied in two groups, each consisting of 18 boys and 16 girls. The product used was a vibrating action game meant for boys and for girls. One group examined the product, the other group viewed a commercial of the product. Results showed that girls were less misled than boys. The commercialized product was assigned monetary value than the personal product. Girls' value judgements were more "realistic" than boys' judgements. The authors suggest that perhaps 5th grade girls have not yet learned their "appropriate" sex-typed role of persuasability.

Singer, Benjamin, D. (Ed.). *Communications in Canadian Society*. Toronto: Copp Clark Publishing Co., 1975 (2nd ed.).

24 articles deal with the sociology of communications institutions, the issues of ownership and control of the mass media, the issue of the Canadian identity in relation to mass communication, and the role of the mass media in community and social problems. Also addressed are issues and problems relating to media in the classroom, propaganda, and public opinion in Canadian society. The Resource Guide provides primarily Canadian references.

Singer, Jerome L., and Singer, Dorothy G. "Can TV Stimulate Imaginative Play?" *Journal of Communication*, 1976, 26(3), 70-74.

The authors found that the presence of an adult to "bridge the gap between TV performance and limited attention span can increase the benefit of a program." It is suggested

that the 3-4 year age group is most susceptible to adult influence which can provide immediate feedback to their responses and engage children in dialogue. The authors suggest that TV may only have a limited impact on this age group when adult mediation is available.

Singer, Jerome L., Singer, Dorothy D., and Zuckerman, Diana M. *Teaching Television: How to Use TV to Your Child's Advantage*. New York: Dial Press, 1980.

This book was intended for parents who want "to put the child in control of the TV set rather than vice versa." The book contains many structured lessons and discussion ideas for parent use with which to critically analyze TV content, structure and function. The aim of this book is to integrate TV in a critical manner, rather than find alternatives to viewing. Much of the authors' previous research is presented, providing the kind of evidence needed to understand the impact of TV on children and the importance of teaching critical viewing skills.

Singer, Dorothy G., Zuckerman, Diana M., and Singer, Jerome L. "Helping Elementary School Children Learn About TV." *Journal of Communication*, 1980, 30(3), 84-93.

This study found a positive correlation between the implementation of a critical media curriculum and the ability to better understand and critically analyze TV programs and commercials. In all categories it was found that the critical media curriculum was effective in teaching children about TV techniques and production. It was also found to improve children's writing skills, mathematics skills, vocabulary, and critical thinking skills. Parental viewing habits and attitudes towards TV remained a strong influence on children's attitudes towards TV.

Sprafkin, Joyce, and Rubinstein, Eli A. "Children's TV Viewing Behavior: A Field Correlational Study." *Journal of Broadcasting*, 1979, 23(3), 265-275.

"Prosocial content on current TV series" and children's behaviors are examined. The authors suggest that prosocial behavior is desirable and rewarded at home, and hence, TV reinforces something children "already know." Aggressive behavior is not "normal fare" at home and is discouraged and/or punished — seeing aggressive behavior on TV may disinhibit or discourage such behavior. Prosocial behaviors are always subtle, implicit and verbally mediated, whereas aggressive behaviors are always overt, physical and immediate. Since children learn from simple and direct action, they may be more likely to imitate simple (aggressive) acts. Also, aggressive behaviors are usually performed by the most powerful and successful characters and children will more readily imitate such models.

Stauffer, John, Frost, Richard, and Rybolt, William. "Literacy, Illiteracy, and Learning from TV News." *Communications Research*, 1978, 5(2), 221-231.

The authors investigated the abilities of literate and non-literate adults to recall and use information from a national network TV news program. It was found that literates recalled and applied information better (55%-63%) than non-literates. The authors suggest that the structure of TV news (complex sentence structure, multisyllabic words, etc.) presents considerable problems for functional illiterates. In this sense, the "common sense" compensation developed by functional illiterates does not transfer to the decoding of certain TV information. The reason offered is that reading and writing skills can be assumed to develop the kind of skills requisite to decode visual and oral information as presented on TV. Important to note is that non-literates in a technological society do not share the powers of memory of non-literates in tribal society.

Sullivan, A.M., Andres, E.A., Hollinghurst, F., Maddigan, R., and Noseworthy, C.M. "The Relative Effectiveness of Instructional TV." *Interchange*, 1977, 7(1), 46-51.

This study examined whether instructional TV could produce as high a level of student achievement as live lectures and under what circumstances instructional TV would be most effective. First year university students were sampled. It was found that university level instruction via live lectures produced the highest achievement, whereas studio produced videotape was considered the most inferior instrumental method.

Tierney, Joan D. "The Evolution of Televised Reading Instruction." *Journal of Communication*, 1980, 30(1), 181-185.

It is suggested that a combination of televised and teacher directed reading and writing instruction produced significant superior results in listing, comprehension, reading and writing tests. The best results were found with teachers already positively predisposed towards TV. The author stresses the importance of the use of systems theory in instructional design. That is, predefined learning objectives are abandoned in favor of student and teacher feedback from which learning goals are generated. "Cultural, literature, intellectual and social differences" must be accommodated in instruction. For example, closed-circuit TV can be used to provide immediate feedback on teacher/student interaction during instruction. The author emphasizes the need for a contextual curriculum with TV instruction.

Trurow, Joseph. "Non-fiction on Commercial Children's TV: Trends and Policy Implications." *Journal of Broadcasting*, 1980, 24(4), 437-447.

This is an historical study of the nature and number of children's non-fiction TV programming in the U.S. over a 32 year period. The most notable shift in children's programming occurred during the 1960's when non-fiction programming became "isolated structurally, spatially and thematically." The advent of animation and the slotting of Saturday a.m. programming contributed to this change. After 1968/69 non-animated programs were clearly differentiated as non-fiction is excluded from the Saturday a.m. schedule and inaccessible to most child viewers. The author contends that the FCC supports an assumed belief in the efficiency of industry self-regulation and is neglecting to address the problem of appropriate scheduling. The author calls for appropriate "measures of quality", identification of target population and correlative scheduling, as an imperative need for FCC regulatory policy.

Wackman, Daniel B., Wartella, Ellen, and Ward, Scott. "Learning to be Consumers: The Role of the Family." *Journal of Communication*, 1977, 27(2), 138-151.

This article explains how cognitive development theory and socialization theory can be combined to "form a cognitive developmental approach to socialization research." Two important factors of consumer information processing behaviors of children are:

- a) mother's use of information in purchasing decisions,
- b) informational aspects of mother/child interaction about and during purchasing.

It was found that there is a consistent relation between a child's age and consumer processing skills.

Wartella, Ellen. *Children Communicating*. Beverly Hills, California: Sage Publications, 1979.

This collection of essays describes children's communicative behaviors from a developmental perspective. The

Continued on page 25

1983: World Communications Year

By H.D. Markell

On November 19, 1981, the United Nations General Assembly, in consultation with the International Telecommunication Union (ITU), the Economic and Social Council and other specialized agencies, officially proclaimed 1983 as World Communications Year and called upon all nations to develop an awareness of the importance of communications and transport. The theme of the Year is "Development of Communications Infrastructures," with particular emphasis on the needs of the developing countries.

In recent years, all people have become more aware of the important role played by telecommunications and their networks. They are the basis for social, cultural and economic progress and are an essential part of the infrastructure of administration. Telecommunications — high-quality national and international voice circuits, telex, maritime and aeronautical radio communication services, data transmission, sound and TV broadcasting services, international cable and satellite communication links — place people of all nations in contact with one another and with the events and peoples of the world.

The cornerstone of the system is international co-operation, essential for ensuring the smooth functioning of the world telecommunications network. This co-operation has enabled all the telecommunication systems developed over the past century to be gradually extended to the public as a whole, and in future will pave the way to a more equitable distribution throughout the world of those facilities that draw mankind together by overcoming time and distance and eliminating even psychological barriers.

With this in mind, the UN General Assembly declared "that a World Communications Year would provide the opportunity for all countries to undertake an in-depth review and analysis of their communications policies and stimulate the accelerated development of communications infrastructures."

The International Telecommunication Union has been designated the lead UN agency for the worldwide preparation and celebration of World Communications Year (WCY) 1983, with responsibility for co-ordinating the activities of its 157 member countries. Founded in 1865, the ITU is the world's oldest inter-governmental organization, and is the UN's specialized agency responsible for planning, regulating, co-ordinating and standardizing international communications. It operates in the spirit of "give and take", with member countries exchanging information and assistance.

The General Assembly urges governments and private organizations and all communications users to participate actively in WCY 83, and to co-operate with the Secretary General of the ITU in attaining these principal objectives of the Year:

- to increase the scope and effectiveness of communications as a force for economic, cultural and social development;
- to stress the expansion and refinement of communications infrastructures;
- to promote the development of a complete worldwide communications network, so that no one will be isolated from the local, national or international community;
- to call for harnessing all resources to accomplish the objectives; and
- to focus on the analysis, planning and development of national communications infrastructures in all countries to meet their communications needs.

On May 17, in announcing plans for WCY on the occasion of the 14th World Telecommunications Day, Francis Fox, called

H.D. Markell is a writer and information officer for the Department of Communications, Government of Canada. He has prepared this paper exclusively for CJEC to provide AMTEC members with a background on Canadian activities in World Communication Year.

upon governments and the private sector to co-operate in Canada's participation. "Because of our expertise in all aspects of communications technology, Canadians are in a unique position to contribute to international development and undoubtedly will wish to play an active role in promoting the Year," Mr. Fox said.

The activities of WCY 83 will be conducted on three levels — national, regional and international — but the focus will be placed on activities at the national level. For the success of the Year, national committees should be organized to formulate and implement a program of activities and to co-ordinate them with regional and world programs. They should feature wide representation from government and non-government organizations, including posts and telecommunications, radio, television, press and films, transport, industry, health, agriculture, education, national planning groups, users' associations, professional associations, radio amateurs, and others.

Through the establishment of national committees, each country will define its own needs, identify the obstacles that impede the balanced development of communications, propose solutions to overcome them, and explore ways of translating the decisions into reality.

All the activities associated with the WCY program are to be financed on a voluntary basis. Contributions of all kinds are needed: money, equipment, services, expertise, and others. It is the responsibility of the national committees to secure funds for their activities, except for certain projects financed by international aid.

Programs for the year comprise three types of activity: specific projects, seminars and symposia, and information activities. Participants may act alone on a project, or work in conjunction with other organizations. They may take responsibility for a complete project or a specific part of a project.

Many international organizations such as the International Civil Aviation Organization (ICAO), the United Nations Industrial Development Organization (UNIDO), the Universal Postal Union (UPU), and the World Health Organization (WHO) have recognized the inherent educational opportunities of World Communications Year and have planned projects, seminars, conferences and other activities during 1983 to complement other WCY projects.

The ITU has prepared a list of pilot projects involving assistance to many Third World countries in implementing various types of communications projects, including training, maintenance, frequency monitoring, network planning and broadcasting facilities.

Priority technologies for these projects for which Canadian manufacturers are available are fibre-optic distribution systems, digital local switching, digital subscriber carriage, subscriber radio and satellite single-carrier-per-channel systems for remote telephony.

Activities in these areas would promote long-term beneficial relationships between Canada and Third World countries by encouraging co-operative research and development and manufacturing. However, obstacles will be encountered, such as developing systems to operate in areas where the climate is adverse, training local technicians, and the absence of a dependable power supply.

In Canada, a national steering committee has been set up, under the chairmanship of John Gilbert, Director of International Arrangements, Department of Communications, to prepare for Canada's participation. The committee includes representatives from industry as well as federal and provincial governments and other interested associations.

To date, the committee has identified nine possible projects to be sponsored by organizations such as Teleglobe, the CBC, Canada Post, and others. One example is a proposal brought forward by the Ontario Ministry of Transport and Communications for development of rural telephone systems in Third World countries. There are an estimated 550 million telephones

in the world, but 75% of these are in eight developed countries only, and rural telephone service is considered essential to economic development.

The young people of the world will also be given an opportunity to participate in the celebration of World Communications Year. A worldwide photo and drawing competition, "Youth in the Electronic Age," will be launched during the fall of 1982. The competition is open to young people from 8 to 18 years of age, and entrants will be divided into three age-groups. The theme will be "Telecommunications for Everyone." Photographs, drawings, paintings and illustrations should develop the theme and show how young people imagine the role telecommunications will play in their world.

Stimulating an awareness among youth of the impact of communications infrastructures on today's society is very important, because they will become the scientists, engineers, educators, policy-makers and users of tomorrow, and will be ultimately responsible for the continued development of

communications for the benefit of mankind.

The youth art competition was first organized in 1971, during the first World Telecommunications Exhibition, TELECOM 71, and has since become one of the highlights of TELECOM. The prize winners in the WCY 83 competition will be announced and displayed during TELECOM 83, to be held in Geneva, October 26 to November 1, 1983.

Mankind will be increasingly affected by the explosive and imbalanced development of communications infrastructures. Only if the balance is redressed by a fairer distribution of facilities and a better co-ordination of their development can the economic and social needs of all nations be met.

World Communications Year will not provide solutions to all the problems. But, in mobilizing the whole world community to the need to develop communications infrastructures, it will mark the beginning of a new era when all nations can benefit from the services provided by these equitably developed systems. □

AMTEC ANNUAL ELECTIONS

Nominations are requested for the elections to be held in 1983 to fill three positions on the AMTEC Board.

The positions are:

1. Vice-President (President-Elect)

This is a three year term, beginning in June, 1983 at the Annual Conference. There will be one year as Vice-President, one year as President and one year as Immediate Past President.

2. Secretary-Treasurer

This is a three year term beginning at the Annual Conference in June, 1983.

3. Member-at-Large

This is a three year term beginning at the Annual Conference in June, 1983.

Procedure

1. If you wish to nominate someone:

Nominations may be made by any five AMTEC Members providing the nominee is a member of AMTEC and has signified his/her willingness in writing. A brief biographical sketch of the nominee must be sent to the Chairman of the Nominating Committee along with the nomination.

2. If you wish to be nominated:

Indicate this to five AMTEC members who will arrange to nominate you by sending a letter of their intention and your biographical sketch to the Chairman of the Nominating Committee. You must be a member of AMTEC.

All nominations must be received by the Chairman of the Nominating Committee by February 1, 1983.

Send nominations to: **Lou T. Wise**
Chairman, Nominating Committee
Past President, AMTEC
c/o The Toronto Board of Education
155 College Street
Toronto, Ontario M5T 1P6

EDITOR'S NOTE: This issue of CJEC will not be delivered in time for AMTEC members to make nominations before February 1. While the editor cannot change policy, it is nevertheless suggested that readers disregard the deadline and submit nominations as soon as possible.

From the Media Periodicals

By Pat Wright

BRITISH JOURNAL OF EDUCATIONAL TECHNOLOGY, May, 1982

- Johnson, Sandra and Maher, Brian, "Monitoring science performance using a computerized question banking system"
 Morgan, Alistair, Taylor, Elizabeth, and Gibbs, Graham, "Variations in students' approaches to studying"
 Simair, Denis J., "Computer uses in school administration; a pilot project"
 Todd, Frankie, "Fostering the development of professional skills: the work of the NHS Continuing Education Unit for architectural staff"
 Lowe, Brian, "A method of teaching problem-solving to undergraduate engineering students"
 Brew, Angela, "The process of innovation in university teaching"

BRITISH JOURNAL OF EDUCATIONAL TECHNOLOGY, October, 1982

- Barker, P.G. and Singh, R., "Author languages for computer-based learning"
 Collett, K.J., "PROFORMA: a program to assist non-specialists in the use of computers as a teaching aid"
 Jones, Ann and O'Shea, Tim, "Barriers to the use of computer assisted learning"
 Brown, Stephen, Nathenson, Mike, and Kirkup, Gill, "Learning from evaluation at the Open University, 2: Helping students to learn from audiovisual media"
 Knights, S. and McDonald, R., "Adult learners in higher education: some problems and solutions from Australian experience"

EDUCATIONAL COMMUNICATION AND TECHNOLOGY JOURNAL, Summer, 1982

- Ross, Steven M. Rakow, Ernest A., "Adaptive instructional strategies for teaching rules in mathematics"
 Cassidy, Michael F., "Toward integration: education, instructional technology, and semiotics"
 Sheppard, Margaret A. and Goodstadt, Michael S., "From scare tactics to reasoned decisions: a decade of drug education films"
 Kerr, Stephen T., "Innovation on command: instructional development and educational technology in the Soviet Union"

EDUCATIONAL TECHNOLOGY, July, 1982

- Kearsley, Greg, Hunter, Beverly, and Hillelsohn, Michael, "Computer literacy in business and industry: three examples using microcomputers"
 Roberts, Wesley K., "Preparing instructional objectives: usefulness revisited"
 Brudner, Harvey J., "Microcomputers, special education, and CMI"
 Merrill, M. David, "Doing It with the new CBL disciplines"
 Roblyer, M.D., "A critical look at making best use of the medium"
 Schmidt, William D., "Educational technology in college teaching"

EDUCATIONAL TECHNOLOGY, August, 1982

- Hade, Daniel D., "Literacy in an information society"
 McDaniel, Thomas R., "Teaching television literacy to teachers"

- Hudson, Larry and Bunting, David, "The telenetwork system: a viable alternative for delivering distant instruction"
 Duchastel, Philippe, "Unbounded text"
 Ober, Lynne, "Optimizing your choice of a computer for educational data-processing and decision-making"
 Bork, Alfred, "Computers and learning: right justification and word processing"
 Briggs, Leslie J., "A comment on the training of students in instructional systems design"
 Eisele, James E., "Instructional computing: programming or authoring?"
 Spitzer, Dean R., "Training technology: facilitating training results back on the job"
 Bebeau, M.J. and Sullivan, H.J., "Educational technology research: learning incentives preferred by university students"

EDUCATIONAL TECHNOLOGY, September, 1982

- Holmes, Glyn, "Computer-assisted instruction: a discussion of some of the issues for would-be implementors"
 Bowman, Richard F., Jr., "A 'Pac-Man' theory of motivation: tactical implications for classroom instruction"
 Rogers, Michael, "A case study: use of a systems approach to instructional design"
 Burdick, Evelyn P. and Reda, Denise A., "Are they numbers or VIP's?: a personalized, computer-assisted approach to college admissions and advising"
 Berkell, Dianne E., "Psycho-educational and task-analytical models: a conceptual framework for comparison"
 Braden, Roberts A., "The three R's: research, reward, respect"
 Goldberg, Albert L., "The eclectic technologist"
 Schmidt, William D., "Educational technology in college teaching"

EDUCATIONAL TECHNOLOGY, October, 1982

- The improvement of instruction, learning, and performance: potential of "Landamatic Theory" for teachers, instructional designers, and materials producers, an interview with Lev N. Landa (Part One)
 Davies, J.J., "Linking computer technology and learning: the case for human teachers and computer learners"
 Briggs, Leslie J., "Instructional design: present strengths and limitations, and a view of the future"
 Hoover, Todd and Gould, Sandra, "The pirating of computer programs: a survey of software producers"
 Cowan, John, "Why do we not just use print materials?"
 Bruwelheide, Janis H., "Teacher competencies for microcomputer use in the classroom: a literature review"
 Gordon, Al, "Planning for the coming increase in school enrollments"

INSTRUCTIONAL INNOVATOR, September, 1982

- Butler, David, "22 obstacles to educational innovation — and how to overcome them"
 Sickbert, Carla J. and Fry, Judith, "You can open new environments to educational technology"
 Sebastian, Robert N. and Borton, Terry, "How to draw and write cartoons for instructional impact"

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Mediography

Media on Educational Media

By Nancy Lane

Listed in this column are a number of programs useful to anyone attempting to incorporate media and instruction. For the most part, I have listed recent films but have included such classics as *Film Tactics* and *The Unique Contribution*.

AIKIDO FOR A MEDIA CENTRE Motion Picture, Extension Media, University of California (International Telefilm), 1975. 8 mins., sd., col.

This program looks at two applications of video technology — the teaching and evaluation of a physical activity, and the use of the completed tape as a teaching tool.

CAN WE PLEASE HAVE THAT ONE THE RIGHT WAY ROUND? Motion Picture, Video Arts (International Telefilm), 1976. 22 mins., sd., col.

A humorous presentation on how to give an effective slide presentation. With John Cleese of Monty Python fame.

CHILDREN LEARN FROM FILMSTRIPS Motion Picture National Film Board, 1973. 17 mins., sd., col.

This is still a useful film—it demonstrates that a film-strip must be used, not just shown for effective teaching.

DON'T JUST TELL THEM Motion Picture, Guild Sound (International Telefilm), 1979. 20 mins., sd., col.

The focus of this program is on using basic visual aids effectively—chalk boards, magnetic boards, flip charts, slide projectors, overhead projectors—and on utilizing time and resources in presenting information.

FINDING VALUES THROUGH SIMULATION GAMES Motion Picture, Media 5 (International Telefilm), 1975. 29 mins., sd., col.

A demonstration of a simulation game being used in a Grade 12 classroom to discover student values. The game used is "Star Power".

FILM TACTICS Motion Picture, National Audio Visual Center, 1945. 22 mins., sd., b&w.

Although produced in 1945, this film is an outstanding presentation. It demonstrates the essential steps in the effective utilization of a training film. Produced by the U.S. Navy.

THE FLOOR IS YOURS Motion Picture, BNA (International Telefilm), 1972. 26 mins., sd., col.

A "business" film which demonstrates the proper procedures leading up to an effective presentation.

HOW TO OPERATE A 16MM PROJECTOR Motion Picture, International Telefilm, 1967. 5-10 mins., ea., sd., col.

This series demonstrates how to set up the projector, how to attach reels, how to change lamps, and basic maintenance required. The films are:

- "Bell & Howell Autoload"
- "Bell & Howell Specialist"
- "Kodak Pageant"
- "RCA Victor 400"
- "Graflex 832"

HOW TO GIVE A MORE PERSUASIVE PRESENTATION Motion Picture, Time Life (Marlin Motion Pictures), 1973. 25 mins., sd., col.

From the "Communicating Successfully" series; this film demonstrates how to "sell a subject" using audio visual presentation.

LEARNING WITH TODAY'S MEDIA Motion Picture, Encyclopaedia Britannica (Visual Education Centre), 1974. 35 mins., sd., col.

Filmed in four media centres, the film shows examples of ways in which media centres serve classroom needs.

LET THEM LEARN Motion Pictures, Encyclopaedia Britannica (Visual Education Centre), 1967. 27 mins., sd., col.

A demonstration of how audio visual materials can effectively be used as significant teaching materials.

MEDIA CENTRE IN ACTION Motion Picture, Coronet, 1972. 15 mins., sd., col.

A demonstration of the role of the media specialist and the Media Centre in the elementary school system.

MEDIA FOR PRESENTATION Motion Picture, Indiana University (International Telefilm), 1978. 20 mins., sd., col.

This program is an introduction to audio visual communication, the advantages of film, television, charts, graphs, slides, etc. in any presentation.

THE MEDIUM IN THE MESSAGE, YOU KNOW Motion Picture, National Film Board, 1969. 23 mins., sd., col.

Most of the film takes place in a Vancouver classroom; it portrays students using cameras, TV monitors, videotape recorders, to produce a program.

PREPARING PROJECTED MATERIALS Motion Pictures, BFA (International Telefilm), 1974. 15 mins., sd., col.

An historical approach, beginning with the "magic lantern", this film discusses the projectors, cameras, copiers, etc. Continued on page 28

MEDIA NEWS

By Joe Connor

Educational Technology Course Directory Being Revised

Dr. Gar Fizzard from Memorial University has undertaken a revision and updating of the directory of educational technology courses in Canadian Universities. This document was last printed in 1978. It is expected that copies will be available at the annual conference in Montreal.

New Category In AMTEC Media Festival

A new category has been added to the type of entries accepted for the AMTEC Media Festival — computer software. This recognizes the significant interest and work going on in this area. Computer programs will be accepted as entries to the festival held in conjunction with the Montreal Conference in June. Format will be limited to Apple, Commodore, IBM Personal Computer and TRS compatible materials. More details will be provided on the Media Festival entry forms.

Addresses Of Sig Chairpersons

Here is a list of the names and addresses of the chairs of the various Special Interest Groups. **Microcomputers in Education** is now officially recognized as a Special Interest Group.

Media Managers Don Bates 697 5 Ave., A. West Owen Sound, Ont. N4K 5E1	Media Teachers Ed Crisp Box 65 Dorchester, Ont. N0L 1G0
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Media Utilization

Ed Leslie
1234 Mountain Road
Box 2111, Station A,
Moncton, New Brunswick
E1C 8H9

Instructional Developers

Barry Brown
Educational Communications
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 0W0

Microcomputers in Education

Ron Eyre
Wellington County Board of Ed.,
500 Victoria Road N.
Guelph, Ont.
N1E 6K2

The NFB'S New 1983 Catalogue Available In Early January

The 1983 NFB catalogue features combined Precis Index and Film descriptions. The Precis Index allows the user to search for specific subjects under familiar terms

and through a standardized reference structure to find related subject areas. Also to be introduced in the Spring of 1983 will be catalogues, relating to specific curriculum areas, such as Language Arts, Science or Social Studies. Please contact your local National Film Board Office to obtain copies.

Canadian Literature Consortium Initiated By The CMEC

The Coordinating Committee for Media of the Council of Ministers of Education in Canada, has set a major priority for joint provincial production of a series of videotape programs on Canadian literature. The series will consist of an overview program introducing the series and one program on each of twenty-four Canadian authors, representing each region of Canada as selected by content specialists. Eight provinces and one territory have made a commitment to participate in the funding of the project. TV Ontario is coordinating the production with several other provincial education production houses producing specific programs.

Life On Earth Series Purchased

A second project for joint provincial action under the Coordinating Committee for Media of the CMEC is the consortium

purchase of the LIFE ON EARTH series. Five provinces and two territories have purchased the 27 part series at a reduced consortium price.

Choices In Maritimes

CHOICES, a computerized career guidance information system, is now available in most high schools in New Brunswick, Nova Scotia and Prince Edward Island. While some schools in Nova Scotia are using the on-line computer version, most schools have the microcomputer version. This represents the culmination of a number of years of work by the departments of education in the three provinces and The Council of Maritime Premiers to provide CHOICES to schools on a regional basis. Microcomputers to run the program were provided by the education departments.

Media Mosaic 11

The Ontario Film Association and the National Film Board will be co-hosting a three day workshop "Media Mosaic 11". It will be held at the National Film Board headquarters in Montreal on March 3, 4 and 5, 1983.

It is expected that approximately sixty-five participants will attend. They will be librarians, teachers, media personnel, and
Continued on page 24

COMPUTER NEWS

By Rick Kenny

This column is intended to be mainly a vehicle for informing members of current happenings on the Canadian and international educational computing (and computer education) scene. As in the inaugural edition in the autumn CJEC, the items in this column have been gleaned from conversation with people in the field in Alberta and from a variety of magazines and newsletters. If you have news items which you would like to submit, please forward them to:

Mr. Rick Kenny
Media Services Group
Calgary Board of Education
3610 - 9th Street S.E.
Calgary, Alberta
T2G 3C5

Alberta's Computer Technology Project

Alberta Education has finally established the Clearinghouse of Educational Courseware which was indicated in the original announcement by Mr. Dave King, Minister of Education, in October, 1981 [see CJEC, Vol. 11, No. 3]. The Clearinghouse began operation this summer and has started by evaluating Mathematics programs with the intention of publishing the information by the end of 1982. The format of the publication has yet to be announced. The evaluations are being conducted in three stages. First, the courseware (or lessonware) undergoes an initial screening by the Clearinghouse staff. Second, it is evaluated by two teachers with experience in the relevant field and/or educational computing and synthesized by a third such teacher. And third, it is checked for its relevance to the Alberta curriculum. Should it pass all three stages, the Clearinghouse would then attempt to either license the rights to the materials or make a bulk purchase for distribution to Alberta schools by the School Book Branch. Said courseware is being evaluated using a form designed by the Clearinghouse staff (with input from Alberta educators) — a document which attempts to strike a happy medium between the EPIE and Microsift forms.

Also announced by Mr. King in October, 1981, was the purchase of 1000 Bell and Howell Edumod Apple computer packages for sale to schools at a "reduced" price. These packages turned out to be fairly expensive and have sold slowly. In a further effort to sell them, Alberta Education has announced an ex-

tended payment plan for provincial educational institutions. Said institutions will be able to spread their payments over a period of two years with no interest charges. Eligible purchasers will still have to buy the 48K Bell and Howell microcomputer, single disk drive, controller card and 11" Panasonic color monitor for a total price of \$2517.43. However, under the plan, payment can be split into installments of \$503.00 at 6 month intervals; i.e. \$503.00 down and payments every 6 months afterwards until paid for.

Telidon Experiments In Canadian Education

Alberta: More than 60 Alberta high school students in six rural schools participated in a mechanics correspondence course, using Telidon, from September, 1981, to June, 1982. Preliminary findings indicate that students using Telidon learn as well as, or better than, those studying by traditional correspondence methods and that they preferred the self-pacing aspect associated with the computerized system.

The University of Calgary has experimented with Telidon by combining it with teleconferencing to offer a course in grammar to four off-campus centres — Canmore, Drumheller, Olds and Medicine Hat — as well as two centres in Calgary. Instruction consisted of both lecture and question-and-answer procedures, with lecture material being supplemented and enhanced by the videotex capabilities of Telidon. Students assembled at the local centre. The coordinator, or local program administrator, then telephoned the Telidon-Teleconferencing studio at the University when the session was to begin and was connected by the studio technician. The course was delivered from the studio by the instructor on a two-way basis with students able to ask questions and conduct discussions. When needed, the technician switched the transmission manually to Telidon and a graphic was sent over the same telephone line. Reaction was favourable to the addition of the Telidon video element but the manual switching was found to be slow and cumbersome.

Ontario: It was recently announced by Dr. Bette Stephenson, Ontario Minister of Education, that TV Ontario will be starting a new Telidon project to offer a career counselling and guidance service to Ontario schools. The pilot project, to be funded by the Ontario government's BILD program, TVO and the Federal government, calls for the installation of 100 Telidon terminals in Ontario — 70 in schools (mostly in Northern Ontario), 20 in youth employment centres, and 10 in other locations accessible to the public.

The program will make use of a newly-designed terminal capable of receiving Telidon information by both telephone line (videotex) and by broadcast (teletext). The information will come from the Ontario Ministry's computerized Student Guidance Information Service, the Federal Job Bank, and other employment information services.


Information About Computer Resources In Education

A new source of information about microcomputer courseware and other resources available for computer education at the elementary and secondary levels was to become available this September. The system is called RICE (Resources In Computer Education) and was developed over the last 3 years by the Computer Technology Program at the North-west Regional Educational Laboratory in Oregon. RICE is a computerized data base which educators will be able to access and search through the School Practices Information Network (SPIN) operated by BRS, Inc. Two files have been developed thus far: **Courseware**, which contains descriptions of approximately 2000 microcomputer products; and **Producers**, which has information on 150 producers of microcomputer instructional and administrative products. Three other files are to be developed and on-line in 1983: **Computer Literacy** (containing objectives and test items for computer education), **Project Register** (descriptions of school projects in K-12 computer applications), and **Inventory** (numbers of student stations and other data on hardware installations in schools).

For further information, contact BRS, Inc., 1200 Route 7, Latham, N.Y., U.S.A., 12110, or Judith Allen, Director, Computer Technology Program, NWREL, 300 S.W. Sixth Avenue, Portland, Oregon, U.S.A., 97204.

Children's Television Workshop Meets the Computer

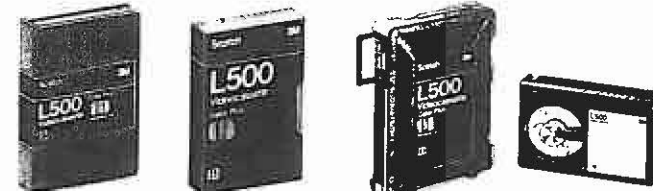
The Children's Television Workshop, producer of "Sesame Street", has announced the creation of the Children's Computer Workshop, Inc. The company will produce computer software "that will afford an opportunity for informal learning and fun by children and young adults at home and in school." The formation of the subsidiary is an outgrowth of CTW's experience in developing computer games for its Sesame Street educational parks in Longhorne, Pennsylvania, and Dallas, Texas. Some of these games are now being offered by Apple and CTW has also signed contracts with Tandy (Radio Shack) and Atari to develop soft-



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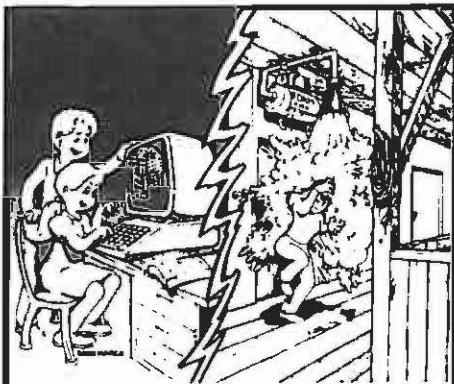
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It's called **Microcomputers: An Introduction** and it explains and demonstrates how computers work. It also includes simple, accurate definitions of computer-related terms.

It's the newest film in LCA's acclaimed children's series *Simply Scientific*, which also includes these animated films: **Beyond The Stars (A Space Story)**; **Byron B. Blackbear and the Scientific Method**; **How To Dig a Hole to the Other Side of the World**; and **The Lightning and Thunder Case**.

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ware. Some of this software will, apparently, provide practice in particular learning concepts in math and language, but the overall goal is to encourage the broad use of the child's intelligence.

Arizona State University Granted 30 Apple Microcomputers

This fall, Arizona State University began a three-year research project to assess the effectiveness of teaching remedial mathematics to college students. The \$150,000 grant of 30 Apple III microcomputer system and software was made by the Apple Education Foundation as a part of its efforts to enlarge the impact of its educational funding. The computers

are to be used to administer mathematics achievement tests to all students entering the elementary education major at ASU. For the purpose of the study, students who score less than 70 percent are then to be divided into three remedial math study groups: one that is completely computer-guided, a second which uses a combination of computer instruction and individual study, and a third which participates only in individual study. The researchers will also be investigating such questions as how computer interaction can improve students' learning activities, the roles of sound and color in computer-aided instruction, and which types of programs encourage creativity. □

Continued from page 22

anyone who is interested in the production or utilization of film.

During the conference, there will be an opportunity to tour the N.F.B. studios and to see how professional films are produced as well as to participate in discussions about the National Film Board, its changing structure and roles, its films and filmmakers, its methods of film distribution and evaluation, and its innovative uses of films and videotapes.

Further information is available from:
Harry R. Johnston
Box 1080
R.R. No. 3 MALLORYTOWN, Ontario
K0E 1R0
(613) 925-4291 or (613) 342-3642

Coming Issues

Readers will be interested to note that next issue will mark a departure for CJEC. Volume 12, Number 3 will be introducing the concepts of a theme issue and a guest editor. The first theme issue will be **Information Technology** with guest editor Professor Paul Hurly of the Continuing Education Division at the University of Manitoba. Volume 12, Number 4 will focus on **Canadian Studies, Media, and Technology** edited by Professor Kenneth Osborne of the University of Manitoba. Volume 13 Number 1 will be a general issue. Potential authors for CJEC should be aware of these theme issues and submit contributions accordingly. □

Confluence '83 — AMTEC in Montreal June 20 - 22

By J. Duchesne

There could be no better theme for the 1983 AMTEC conference than *Confluence*. *Confluence* of course when audiovisuals and computers are meeting and flowing together to provide more sophisticated and modern means to education.

Confluence because Montreal is at the junction of Ottawa and St-Lawrence rivers, and the pre-eminent place in Canada for bringing together diverse cultures.

Confluence also since people from all over the country will meet at McGill University to communicate. Among those persons will be three keynote speakers:

Mr. W.L. Scottgardner, a researcher with the Gamma Group, Mr. Fred Elie, director of training at Hydro-Quebec, and Dr. Woody Miller, president of A.E.C.T.

There will be workshops and presentations about audiovisuals and computers and also an exhibition with the participation of major corporations and institutions. Our MEDIA FESTIVAL will present

the best educational programs made in Canada.

Be in town, in June, to live outside with the Montrealers and join visitors from all over the world in this very special place: its downtown restaurants and underground city, the old town (Le vieux Montreal) with its artist and entertainers working in the streets, and *Le Quartier Latin* on St-Denis, where you'll believe you are on Saint-Germain-des-Prés in Paris.

Confluence '83 will end just in time to let you and your family tour the province during the joyful period of *La Fête Nationale des Québécois*.

The *Confluence '83* organising committee and its chairman, Dr. Gary M. Boyd, are waiting for you. Be here June 20-22.

For more information write to
Jacques Duchesne
Centre audiovisuel
Université de Montréal
Pavillon Marie-Victorin
C.P. 6128, Succ. "A"
Montreal, P.Q.
H3C 3J7

Continued from page 17

cognitive aspects of communication of children (approx. 4-10 year olds) are examined in relation to:

- children's interaction with TV,
- the role that TV plays in the cognitive development of children, and
- the cognitive abilities children bring to bear on decoding TV information.

Webster, James G., and Coscarelli, William C. "The Relative Appeal to Children of Adult vs. Children's TV Programming." *Journal of Broadcasting*, 1979, 23(4), 437-451.

This article examines children's TV preferences and the implications of these preferences for regulatory guidelines. It was found that, given a choice, children prefer adult programs. The current policy debate on the integration of children's programs into prime-time centers on two central issues:

- whether children prefer adult/family prime-time programs because children's programs are not available, and
- if substituted for adult programs, whether children will prefer the substituted over the replaced program.

All results showed that children prefer adult programs, even when children's programs are available. Are regulatory guidelines for scheduling justified given these findings?

Williams, Tannis M. "How and What do Children Learn from TV?" *Human Communication Research*, 1981, 7(2), 180-192.

"This paper provides a review and critical synthesis of research and theory dealing with the processes involved in children's learning from TV. It asks how and what children learn from TV, and at what ages TV is a more or less powerful teacher. The focus is on assessing evidence that TV can play a positive teaching role. It is suggested that a threshold model may be more appropriate than a linear model for evaluating TV's impact on viewers. It is concluded that TV can play a positive role in children's learning, but given typical North American media diets and current TV content, the opposite has been true for most children." The author reviews pertinent and recent research on TV and children. An extensive list of references is provided.

White, Peter S. "Sesame Street: The Packaging of a Curriculum." *Journal of Educational Thought*, 1980, 14(3), 209-219.

This article analyzes *Sesame Street* planning documents. "The assumption about TV, curriculum and pedagogy are discussed in relation to the program which has developed." *Sesame Street* (SS) was initially developed to benefit a target audience of preschool, urban, disadvantaged children. Letter and number recognition was taught using commercial production techniques. The repetitive, rote aspect of this technique proved effective in ensuring a maximum attention level of children. This format presupposed that viewing is a solitary activity precluding such non-attentive behavior such as talking, touching, moving about, etc. In this sense, the author suggests that SS can be conceived of as a techno-behaviorist technique which does not adequately address the needs of those who do watch this program consistently — most of whom are not urban, preschool and disadvantaged. The author cautions of transferring educational content to a new medium. Often technological constraints and/or social expectations influence the content and form of the medium to the point where the process and (educational) outcome may be totally misdirected or, at least, ineffective.

Zuckerman, Diana M., Singer, Dorothy D., and Singer, Jerome L. "TV Viewing, Children's Reading, and Related Classroom Behaviors." *Journal of Communication*, 1980, 30(1), 166-174.

In this study of elementary school children, it was found that the type of TV programs watched predicted children's reading habits, imagination, and enthusiasm in school. The authors state that the rapid pacing of TV programs does not provide enough time to adequately assimilate the information or process the message; imagination is thus seen to be inhibited. Reading habits were positively correlated to types of programs watched. Reading ability did not positively correlate. The reason for this is assumed to be the relatively moderate viewing time (2 hrs.) of the samples tested. Overall televiewing time did not have a negative impact on any of the behaviors tested and, incidentally, related positively to enthusiasm at school. Attentiveness in class was found unrelated to any particular kind of TV content. The "overwhelming majority of children (and parents) tested indicated that they did not watch any public TV programs." □

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By Joan McLaren

AECT is the largest professional organization on the North American continent concerned specifically with educational technology. It is generally representative of the growth and development of educational technology over the past fifty years, having had its origin in the Division of Visual Education begun in 1923.

AECT has to improve education through the systematic planning, application, and production of communications media for instruction. To this purpose it encompasses audiovisual and instructional materials specialists, educational technologists, audiovisual and television personnel, computer specialists and users, and teacher educators.

Much of the work, conference activity, and communication of AECT is directed to specific interest areas called "divisions". The divisions include Educational Media Management; Information Systems and Computers; Instructional Development; International; Media Design and Production; Research and Theory; School Media Specialists; and Telecommunications. Communication with members and the field is provided through publications of the organization which include the Newsletter, the Instructional Innovator, the Journal of Educational Communication and Technology, and special monographs and reports.

The impact of AECT's work in the fields of standards, ethics, and leadership in educational technology is evident. AECT has served as the agency for the development of standards for institutions and practices in educational technology; ethics for practitioners in education and technology; leadership activities within the field and for its own members; and communications and interaction with other associations and organizations concerned with the application of technology to education and instruction.

AECT holds an annual convention, the next one being in conjunction with NAVA (the National Audio-Visual Association) in April of 1983 in Louisville, Kentucky.

Dr. Elwood E. Miller president of AECT, has given CJEC permission to use the following narrative accompaniment to a slide presentation called "Mission Imperative".

Regardless of the philosophical bent of those of us living in the 1980s, one has to express an admiration for the explorers and missionaries of an

The Profile Column, written by Joan McLaren, Director of the Instructional Media Services Branch of the Manitoba Department of Education, highlights one media organization or agency per issue to provide you with information and viewpoints on current activities and issues in educational technology.

earlier time who left their homes and their civilization to spend months travelling (to places that now take only hours) to establish missions to spread their branch of civilization across the world. There is a majesty and a grandeur associated with their commitment. It is impressive to study the ruins and remains of those missions built in Latin America and the southwestern United States now visited by thousands of people annually.

Another and much more recent phenomenon concerning "Missions" has been the race for space, the exploration of the heavens that started in the '60s and continues today. Despite the extreme cost of these efforts, all of us have been fascinated with the projects themselves, and again with the bravery and daring of the people involved. There is a commitment that requires missions of great magnitude and much imagination. There is also an activity that requires very exact and specific information concerning the missions as designed by leaders, scientists and engineers.

We live in a time of perennial change and refer to ourselves often as the change agents of the educational establishment. One only has to examine the economy these days, the change in birth rate, the change in world resources, the changes in geopolitical alignments, to realize that we are in a time of world-wide social and educational upheaval.

This phenomenon is illustrated best by some of Alvin Toffler's writing in *The Third Wave*. Toffler's premise suggests that "The First Wave" was the Agricultural Revolution, lasting for hundreds of years; The second wave, the Industrial Revolution, lasting approximately 100 years; and that modern society is currently on the threshold of a third wave, or the communication/electronic revolution of the perhaps two to three short decades ahead.

In the third wave, he suggests that there will be a drift away from what he refers to as Massification (large media, large business, large everything) to a much smaller concept of the way people get things done, including learning. Small is better and more beautiful, is his premise. He is not suggesting a retreat to "First Wave" agricultural-based smallness in which the family was the economic unit as well as the social unit, but rather a use of computer technology and electronic technology as a basic resource of tomorrow to give people the advantages of demassification or "Smallness".

A typical illustration is television, which is usually referred to as a mass medium. In his demassification of this mass medium, he talks of cables, discs, cassettes and of the user having an enormous number of options from which to pick and choose, to not only entertain himself, but to use as a learning or informal source. He suggests, in addition, that large factories (necessary during the industrial revolution) which also caused a need for uniform standards of time, of economics, and the like, might very well give way to a more "cottage-industry centered" approach in which the producers are electronically connected to a large organization, but nevertheless can work at their own speed, at their own level, and in their own time frame. Some evidences of this trend, such as flexible scheduling in large organizations, are already apparent.

The third wave that is currently upon us is the technological revolution. Such changes are likely to vastly change the way the educational process is carried on in the generations ahead.

No one is likely to deny the importance of the re-establishment and movement toward a major professional mission. Nevertheless, there is nothing quite so unfortunate as a large social organization working and moving in pursuit of the wrong or inappropriate mission. Because I believe that the wisdom of leaders in the past would be helpful in examining this question, I sent a questionnaire recently to all of the AECT and DAVI past presidents. I would like to share with you some of the thoughts of the dozen and a half who responded.

In a somewhat random form and illustrated with segments from their responses, I would like to share with you some of the things that they suggested. After we run through these, I will describe two or three categories and attempt to draw some conclusions that I feel may be important to us as we examine our mission in the rest of the 20th century.

Running commonly throughout most of the responses was the term, "The improvement of instruction". This has been a traditional mission for us and one that, there seems to be a little argument, should continue. In a very thorough, well thought out, and extensive response to my questionnaire, Charley Schuller stated that the notion of efficiency is extremely important. What pays off is all that can be tolerated in a time of declining resources and ever escalating needs, to put it another way, Schuller sug-

gested that to gain maximum returns from the money, energy and time invested is what we must be about.

A number of the past presidents raised the question of the current name that we call our association, and I will come back to that later.

Wes McJulien, president of the association two years ago, was concerned in his questionnaire with Budget control and accountability. That certainly is a concern that we are all aware of in our day-to-day management of our centres and our offices. Bob de Kieffer was concerned that we re-analyze our mission in light of reduced educational markets and increased opportunities in the business and industry field.

Carolyn Skidmore indicated that her concerns were problems of attitude and awareness toward the potential of our umbrella organization and field. Wes Meierhenry was concerned that we should be focusing upon the common elements of our widely scattered media professionals.

Don Ely indicated a concern that we embrace strengths and advantages of many of the disciplines and use them on behalf of our own communication problems.

Dick Gilky stated that we must learn to devise means for the delivery of instruction that is cost efficient and yields provable results.

John Virgis stated that he is concerned that we survive our current identity crisis as we face computers in the new technologies.

Walter S. Bell expressed a concern for the productivity of teaching and learning patterns.

Bob Heinich expressed a concern for our various interest groups, and how they fit together, and how to prevent territorial parochialism.

Mendel Sherman indicated that our mission is known, but it does need to be re-examined and even more so, to be implemented.

Mendel Sherman again indicated that we must learn to document that we truly make a difference.

Bob Gerletti expressed a concern for our umbrella group. Are we broad or really quite narrow in our outlook?

Jerry Thorlaksen suggested that we must take a look at the sociological impact of the Technology Revolution on the horizon.

There are several common threads running regularly through most of the replies of the past presidents and these common threads can also be identified at almost any cocktail hour or late evening bull sessions involving a group of professionals out of the educational media field. Included are a concern for the umbrella concept,

and how we take a group of professional people who are brought together by a common cause under the protection of an AECT umbrella in order to solve the problems of training, instruction, and education.

The second major issue indicated over and over again by the past presidents is the question of efficiency. How can we get more education and instruction out of stabilized or even diminishing resources? It has been the challenge of mankind throughout history. As we have conquered the oceans, mastered the air, increased the life span, attempted to feed a diverse worldwide population, and make mankind's lot comfortable, warm and reasonably pleasant, we now may find it necessary for professionals in education, and especially those of us concerned with educational technology, to begin to take some of the principles of the engineering professions and apply them to instruction and education.

Several problems are obvious. First, the extremely inefficient teaching methodology that Jim Finn used to call the "Chinese Coolie" method of teaching, in which the master teacher's voice was essentially the transmitter of information and ideas, must really begin to change. Technology can replicate, duplicate and broadcast information to so many more listeners that it becomes obviously a mechanism for increasing the efficiency of the communication process. Convincing the professors of my campus and teachers in your secondary and elementary schools will continue to be the most challenging single thing that we will face in the years ahead. Instructional efficiency has never been a popular cause in a labor-intensive industry.

We have a couple of models to follow, though, that means we are not inventing the wheel from scratch. Look at the library. The library still is the repository of most of the knowledge of mankind and we don't have to reinvent the fact that it is cheaper to make a thousand copies of a book than it is to handwrite one of them. So the technology of information storage, and to somewhat less degree, retrieval, is a model that we can examine. Our less than totally effective efforts to work closer with the librarian are still important in the solution of the instructional efficiency problem.

An additional possible model to study may be the model of the land grant university unique to the U.S.A. and unique to the educational process. The land grant university (in which

education is carried in quantities to people in the field) is practiced in certain institutions in nearly every state. The land grant model may very well give us some insights into ways and means of devising programs that can, in fact, increase the efficiency of the instructional process via the application of communication technologies.

The last issue that I wish to raise and one that I hear discussed regularly around the country is the name of our association. To us it has considerable meaning, but to others it does not. I do not wish to resurrect a great war of 1970, when we struggled for several years to come up with a term to replace DAVI (the Department of Audiovisual Instruction). Nevertheless, we are known by what we are called, and I would call on the association, the board of directors of the association, and the membership to examine carefully the term "educational communication and technology" and see if we can't come up with a more graphic, more descriptive, more fitting and more easy to sell name for our association. I will not suggest a solution at this point, but simply call for a serious examination of the "handle" that we have attached to our professional "kettle".

We stand at a unique crossroad in the profession and in our professional association. CommTex International in January of 1983 could be the focus upon which we all work to take a new look at our professional mission, how we practice and research that mission, and how we work to keep our personal commitment to our mission alive and healthy.

In closing, let me call on all of you for some specific actions in the months ahead.

First, re-examine your own professional role in your office, shop or resource centre and see if you need to take "thinking time" to re-define where you are going.

Second, work with your local affiliate association to study the mission of these important and life-giving support groups of AECT. Thinking time is in order at this level too.

Third, support your national officers and board of directors as they work to cope with the changes that are bound to come, along with the immediate problems of surviving the recession.

Fourth, write your ideas and share them with others within your association. The CJEC is a possible forum for sharing ideas.

Our professional mission is important. Remember Bob De Kieffer's profound comment . . . Any road will get you there if you are not sure where you are going. □

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INSTRUCTIONAL INNOVATOR, October, 1982

- Sinofsky, Esther R., Knirk, Frederick G., and Eastman, Harvey A., "Systems management tools: survival in the media management arcade"
Dayton, Deane K., "How to set limits for a production facility"
Goodman, R. Irwin, "Evaluate your media just like the pros"

MEDIA AND METHODS, September, 1982

- Utton, Ronald E., "Censorship rides again"
Elliott, Christ, "The latent computer literates"
"Reference/Texts: always there when you need them"

MEDIA AND METHODS, October, 1982

- Howe, Samuel F., "Electronic teaching: optical videodiscs"
Johnson, Martin, "Horror in the classroom"

MEDIA AND METHODS, November, 1982

- Crone, Tom, "PLATO gets serious about the future of software"
Priven, Judith S., "Authoring v. programming: computer software from the educators' point of view"
Luhn, Robert, "The computer (inter) faces life"

PROGRAMMED LEARNING AND EDUCATIONAL TECHNOLOGY, June, 1982

- Lewis, B.N. and Pask, G., "The development of communication skills under adaptively controlled conditions"
Jolly, Brian, "A review of issues in live patient simulation"
Hlynka, Denis and Hurly, Paul, "Correspondence education and mass media: some issues and concerns"
Hartley, James, "Student preferences in typography"

PROGRAMMED LEARNING AND EDUCATIONAL TECHNOLOGY, August, 1982

- Bung, Klaus, "Teaching algorithms and learning algorithms"
Brien, Robert, Goulet, Paul, and Provost, Guy, "Learning to learn, suggestions for the development of a curriculum at the high school level"
Kerr, Stephen T., "Appropriate technology for education in developing countries"
Kidd, Marilyn E. and Holmes, Glyn, "The computer and language remediation" □

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PROJECT DISCOVERY: A DEMONSTRATION IN EDUCATION Motion Picture, Encyclopedia Britannica (Visual Education Centre), 1965. 29 mins., sd., col.

A report on the results of a classroom experiment, in which media is used as basic materials of instruction; the film includes reactions of students and teachers.

PROJECT THE RIGHT IMAGE Motion Picture, Rank International Telefilm), 1977. 13 mins., sd., col.

How to present a film showing. The focus is on the preparation and planning which achieve the professional result.

TEACHING BASIC SKILLS WITH FILM Videorecording, Marlin Motion Pictures, 1980. 90 mins., sd., col.

This is a workshop session written by two teachers. It gives practical suggestions for effective and creative teaching using film. The program is available for free dubbing.

TO HELP THEM LEARN Motion Picture, Xerox (International Telefilm), 1978, 21 mins., sd., col.

Emphasizing the need of today's student for visual and auditory stimuli, this film demonstrates media being used to both motivate and teach.

THE UNIQUE CONTRIBUTION Motion Picture, Encyclopaedia Britannica (Visual Education Centre), 1959. 29 mins., sd., col.

Focuses on the contribution of motion pictures to education with illustrations. Still a useful teaching tool.

VISUAL AIDS Motion Picture, BNA (International Telefilm), 1975. 27 mins., sd., col.

Although filmed in a business setting, this film is for all instructors. It humorously presents the right and wrong way of utilizing visual aids. □

LETTERS

Congratulations! Vol. 12, No. 1 is exciting and challenging. You've done a fine job. Production, design and cover are all striking. The content makes one aware that the media field is alive and active.

Gerald Brown
Chief librarian
Winnipeg School District No. 1.

... I would like to extend my sincerest congratulations to you on your first edition of *CJEC*. The format is slick and the content bodes well for the future relevance and success of the journal.

T.L. Bennett
Resource Teacher
William Beatty School
Parry Sound, Ontario

Both Richard and I were especially pleased with the first issue of *CJEC* under your editorship. The journal is particularly strong in graphic appeal. The cover is eye catching and clear. I must commend you on the use of color. The content also displays a fresh new approach. The variety of contributors is a sign of your leadership and ability to enthruse others. Good work!

Patricia Lewis
Mount Saint Vincent University
Halifax

A look at your editorial board indicates you are an achiever. I hope that things go well this year with *CJEC*. With yourself as editor, I will approach it with a positive bias. I also hope that things improve for many of us in the communications profession in the next year.

Jim Burk
Saskatchewan Agriculture
Regina.

I was extremely pleased with the "look" of the most recent *CJEC*. The tremendous amount of time you must be investing appears to be paying benefits. My heartfelt congratulations on an impressive beginning.

Richard Schwier
University of Saskatchewan

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