

# NOTES FOR THE GUIDANCE OF AUTHORS

The Editor is always pleased to receive for consideration articles on aspects of educational technology, media use and research likely to be of interest to readers. Topics of interest include: computer assisted instruction, learning resources centres, communication, evaluation, instructional design, simulation, gaming, and other aspects of the use of technology in the learning process. Two primary forms of contributions are welcomed: refereed articles, and notes and non-refereed articles. It is important that contributions conform to the notes below.

## Notes and Non-Refereed Articles

- Contributions for this category are welcomed from all members. Writers are encouraged to use a familiar, casual style. Jargon should be avoided.
- Contributors to this section surrender to the editor the responsibility of final copy edit. Articles will not be returned for author approval prior to publication.
- Contributions to this section do not require additional notes or references. If these are included they must adhere to the style guidelines for refereed articles.

- Include your name, position, institution and mailing address.
- Type contributions on 8 1/2 x 11 paper using a 60 stroke line, and double-spaced. Do not break words at the end of a line.
- Non-refereed articles should be from one to five pages in length. Notes of upcoming events or other news should be one paragraph in length.

## Refereed Papers

- Manuscripts should be 5-20 double spaced, typed pages.
- Include an abstract of about 100 to 150 words.
- The author's name, position, institution, and mailing address should be on a separate page.
- Authors should send three copies.
- Contributions are accepted on condition that the material is original and the copyright vests in the Association for Media and Technology in Education in Canada. Contributors must obtain all necessary permissions and pay any fees for the use of materials already subject to copyright.

- Type contributions on 8 1/2 x 11 paper, using a 60-stroke line. Do not break words at the end of a line.
- Main headings** should be centered and typed in upper case. **Secondary headings** should be typed at the left-hand margin, using upper and lower case underlined.
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Table 1 about here.

- References in the text should employ the author/date format (eg: Kowal, 1982). All references should be listed at the end of the paper in alphabetical order. The American Psychological Association Style Manual (2nd edition) should be referred to by all authors to ensure consistent reference style.
- Spelling should conform to the Merriam-Webster **Third New International Dictionary**.

Canadian Journal of  
Educational Communication  
Vol. 13 No. 2  
March, 1984  
ISSN 0710-4340

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Guest Editor: Dr. Dexter Harvey, University of Manitoba

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Christian Press  
Winnipeg



The **Canadian Journal of Educational Communication** is published quarterly by the Association for Media and Technology in Education in Canada, P.O. Box 1021, Station B, Willowdale, Ontario, M2K 2T6. All articles are copyrighted by AMTEC and may be reproduced for nonprofit use without permission provided credit is given to CJEC. CJEC is indexed in the **Canadian Education Index**. All correspondence to the editor should be addressed to  
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# AMTEC IN 1984

1984 is turning into a busy year for the AMTEC board. Members will be interested in the following birds-eye view of upcoming and ongoing events and activities:

\* **COURSES IN EDUCATIONAL TECHNOLOGY** by Gar Fizzard is again available, and provides an invaluable survey of courses offered across Canada in the field of educational technology.

\* **COURSES IN MICROCOMPUTING IN CANADA** is in production at the University of Saskatchewan. Watch for this document as an insert in an upcoming issue of CJEC!

\* **MICROCOMPUTERS: A GUIDE TO PERIODICALS FOR TEACHERS, LIBRARIANS AND MEDIA SPECIALISTS**, produced for AMTEC by Ken Haycock, appears as an "extra" with this issue of CJEC.

\* The Canadian Education Association is increasing its involvement with AMTEC. The first step was a successful pre-conference workshop titled **EDUCATIONAL APPLICATIONS AND MANAGEMENT USES OF THE COMPUTER**, presented at CEA by Bob Jones, Guy LeGER, Larry Noonan, Clarence Landry,

Laurice Fountain, and Yvonne Husereau. Other co-sponsored efforts are currently under negotiation.

\* Negotiation is also underway which will give AMTEC a major role in the distribution of a new award, entitled the Commonwealth Trust Award. More about this venture can be read in this issue of CJEC.

\* AMTEC conferences continue to receive top priority. London Ontario (June 17-21) promises over 20 papers on a kaleidoscope of media topics, climaxed by a performance at Stratford of William Shakespeare's *Love's Labour's Lost*. AMTEC '85 will be held in Calgary.

\* CJEC is continuing to grow with more pages, more papers, and more information. Our reputation is growing. In particular the guest editor concept has increased an awareness of AMTEC outside our own local community, as well as focused attention upon other fields within which educational technology can play a significant role. Vol 12 #3 focused on Canadian studies. This issue (Vol. 13 #2) explores the relationships of educational technology to the health sciences. And other special issues are in planning stages for the near future. Indeed, if CJEC has a

problem, it is that there is now a significant time lag between receipt of manuscript, review by a busy editorial board, and final publication. To those writers caught in that wait, we apologize! But please keep sending your papers! A journal cannot exist without them! The major result of the current overabundance is that the quality of what you read is going up. At least that is our aim.

In short, your AMTEC executive is actively promoting media and technology in education in Canada on your behalf. You too, can be actively involved in our dynamic organization. Contact your local board representative if you wish to be part of our several committees. Write to CJEC to let us know your thoughts. And check your membership! Don't let it slide! In fact, look around. Should any of your colleagues be a member of AMTEC? Does your school/college/university library subscribe to CJEC? Help us reach an even larger audience of educational technology professionals. We want AMTEC to be the voice of educational media and technology in Canada, not just in name, but in deed. Let's make 1984 a year we can look back to!

- D.H.

# GUEST EDITORIAL: Communication Technologies and Health Promotion

By Dexter Harvey, Ph.D.

Health promotion has become the new vanguard concept in health programming with the goal of preventing illness through the development of personal habits that are conducive to the attainment and maintenance of health. Health education, health marketing, community organization and legislation are approaches frequently employed to attain the goal of health promotion.

The upsurge in health promotion is directly related to the growing concern to control escalating health care costs, particularly when those costs are the result of health conditions that can be prevented by adopting personal risk reduction habits.

Health promotion programs employ a variety of approaches, methods and media to reach diverse target audiences while still maintaining a person-oriented program. There is a need to develop effective approaches that will result in the

public adopting behaviors conducive to health. One area with promise is that involving communication technology, around which a variety of approaches and activities can be coordinated.

This issue of CJEC will focus on the use of communication technologies employed in health promotion programs.

In the first article David Nostbakken deals with the effectiveness of television in influencing the behaviors of children with special reference to nonsmoking. The discussion of the influences of television on the behaviors of children and youth is most apropos to health promotion and education in general. He then describes the strengths and weaknesses of the television medium and its content for supporting and crystallizing nonsmoking attitudes and beliefs. The article concludes with recommendations for the use of television for nonsmoking followed by examples of programs. Michel Bourque and Robert Perreault discuss the use of computer-assisted interactive teaching as

a medium for health education. They refer to their health information data bank Tele-Health which uses the Canadian Telidon Videotex technology. They describe the pedagogical issues involved in the mediatization process of health-related material for the general public. In the final article Elinor Wilson describes a community based self-help smoking cessation program which utilizes television, radio, newspaper, community mobilization and a printed self-management handbook. She describes a comprehensive community wide health promotion program built around television.

Communication technology advancements offer exciting new dimensions to health promotion programs. As exciting as these new advancements may be, their impact on attaining the goal of health promotion is still the bottom line. The use of a new technology should be based on the effectiveness of that technology to attain health and/or educational goals. This edition of CJEC addresses that issue.

# MEDIA NEWS

Send news items for this column to:

Joe Connor  
News Editor, CJEC  
c/o D. Hlynka  
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R3T 2N2

## International Council for Educational Media (ICEM) meeting in Canada

Banff, Canada was chosen as the site of the next annual General Assembly and Conference of the International Council for Educational Media. (ICEM)

ICEM provides a channel for international exchange of information and experience in the field of educational technology. The organization encourages international liaison amongst individuals and organizations with a professional responsibility for the design, production, promotion, distribution and use of educational media in member countries. Manufacturers of hardware and producers of software are advised on the need of education in member countries.

ICEM promotes an understanding of educational technology both to educators and to those, involved in teacher training and acts as an information service on developments in educational technology and provides consultancy to member countries.

More than 30 member countries contribute to the pool of educational media available through international co-operation, co-production and exchange.

Three subcommittees of ICEM are Production, Innovation and Development, and Equipment.

The General Assembly will take place the week of October 1, 1984 at the Banff Centre. The General Assembly will be followed by a two day Conference on October 8 and 9 and whose main theme is educational technologies to enhance learning at a distance. International experts in the field of distance education will make presentations, which include such topics as computer assisted correspondence learning, teleconferencing, open learning, micro computer, networking.

For further information, contact conference organizers:

Hans G. Kratz  
Chairman ICEM Conference  
Alberta Education  
11160 Jasper Avenue, Room 324  
EDMONTON, Alberta  
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## AMTEC Board Member completes distance education study.

Danielle Fortosky, as partial fulfillment of the requirements for the degree of Master of Education at the University of Saskatchewan has produced an important document which summarizes the state of the art of distance education in Canada today, then explores specific options for the University of Saskatchewan.

The background to the study presents a review of literature on terminology and trends in distance education as well as a communications model which distinguishes between the implications of programming and delivery technologies for distance learning.

The review of off-campus studies at the University of Saskatchewan includes both credit and non-credit courses delivered during the academic year 1980-1. These programs were examined in terms of their purpose and the need for them, their development, enrollments, total numbers of courses, and methods of delivery, course locations, costs, merits and deficiencies.

The investigation of three selected centres involved in distance education includes Athabasca University, Télé-université and the Knowledge Network. Athabasca and Télé-université were investigated according to their use of distance education methodology and communications technology to provide university credit courses and the associated costs. The Knowledge Network was examined in terms of its recent development as a provincial communications authority and how it functions as a telecommunications network for carrying distance education.

The study investigated the potential of communications technology by distinguishing that programming technologies contribute to the creation of a message whereas delivery technologies carry the message over distances. When programming technologies are used in distance education, they operate as part of a system which is conceived to serve the needs of the learner and the objectives of the course within the constraints of cost and accessibility. The potential of delivery technology is related to its information capacity, speed, accessibility, control features and costs. The study postulates that the costs of delivery technology are such that the best way for educational institutions to access these channels would be as a co-operative or consortium.

Because there is no single formula for

the success of a distance education program, the study concludes by providing a number of options for future directions. These options reflect national and international trends in distance education, developments in communications technology and associated costs, but most importantly, they incorporate the needs and special circumstances surrounding off-campus learning at the University of Saskatchewan.

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The Atari Logo program cartridge works on all Atari Home Computers and requires as little as 16K RAM. The complete package, including a reference guide and two 200-page manuals, **Introduction to Programming Through Turtle Graphics** and **ATARI Logo Reference Manual**, has a suggested retail price of \$99.95 U.S. Institutional customers may purchase manuals and program cartridges separately.

## CJEC EDITOR

The current position of editor of the Canadian Journal of Education expires Fall 1985. So that continuity between editors is maintained, the new editor will act as associate editor for the year preceding.

The position allows the individual an opportunity to become actively involved in the mainstream activity of educational technology in Canada.

A search committee has been established, and will meet with potential applicants during the London conference in June, 1984.

Submit references to Bill Hanson, AMTEC president-elect, or to D. Hlynka, CJEC editor, Faculty of Education, University of Manitoba, R3T 2N2.

# The Role of Mass Media In Smoking Problems Children

By David Nostbakken

*Television is probably the most "mass" of the mass media. People don't just "watch" television, they live with it. It is how we "see", not just learn, what is going on in the world, how people live, how they look, walk, talk and dress.* Paula Green, 1979

## INTRODUCTION

This article, in examining the role of mass media and smoking problems of children, will focus discussion on the place of television. It is recognized that mass media alone, and television in particular, represent one element among several in a comprehensive nonsmoking program. Legislation efforts, educational program, cessation programs, group and face-to-face interventions, are included in a full comprehensive approach. It is difficult to measure the immediate impact of television, film or other mass media alone, apart from other components of the smoking control program. The research available on the subject is sparse and, as shall be seen, somewhat underdeveloped.

Film will be included in this article inasmuch as television lends itself to the use of film. Of course, films can be used in group settings or in a classroom apart from the television reach. As will be seen, however, the use of film in this setting has a different purpose and value than film used on television. Both uses of film are important in a comprehensive nonsmoking program. When mention is made of television programming throughout, it is meant to include nonsmoking films shown on television.

I will begin with a brief note on the smoking problems of children. This is followed by a review of the effectiveness of television in influencing the performance of children and youth with special reference to nonsmoking. Then, the utility of television in supporting nonsmokers to remain nonsmokers is examined. This is followed by a discussion of the strengths and weaknesses of the television medium, its content, viewing patterns and the viewing context for supporting and crystalizing nonsmoking attitudes and beliefs. Finally, recommendations are offered on the use of television for nonsmoking, and examples of its use in the past are given.

David Nostbakken is the director of Public Education, for the Canadian Cancer Society in Toronto.

## SMOKING PROBLEMS OF CHILDREN

It is well recognized that reasons for **beginning** to smoke are not the reasons for **continuing** to smoke. The developmental stages of children and youth leading to adulthood influence the propensity to smoke or not to smoke. In this section, a number of assumptions will be made that may be expressed as follows:

— Children begin modelling significant others (parents, heroes, friends, authority figures) within the first year of life. Smoking parents and other exemplars begin influencing children in relation to smoking long before the child is conscious of the influence.

— By the age of 6 to 12, children, out of curiosity, peer pressure, the desire to experience and emulate, begin to consciously imitate actions of other desirable exemplars, including those friends and individuals who smoke.

— By adolescence, the spirit of independence, particularly from parents and authority figures, often leads to conformity with the peer group or other strong examples in the life of the youngster in alignment against perceived constraints. Where the peer group, for example, is smoking, the influence is obvious.

Clearly, children do not begin to smoke because of a well-articulated and understood rationale or logical argument for them to do so. Rather, personal and interpersonal conditions, needs, desires and curiosities interrelate with strong and persuasive exemplars and their environment.<sup>1</sup>

There are more children not smoking than there are smoking. Prevention of smoking is the name of the game with children and youth. It is an assumption here that emphasis should be placed on supporting nonsmoking youth to remain nonsmokers for their own well-being and to serve as exemplars to those who are experimenting with smoking or are smoking. It should be okay and desirable, by example, for children and young people who do not smoke to **remain nonsmokers**. Our most important role is to support and to encourage nonsmokers never to begin or want to begin smoking.

<sup>1</sup>A thorough discussion of the developing child and smoking problems can be found in a presentation by Dr. Bob Wake recorded in the Proceedings of the 4th World Conference on Smoking and Health entitled *The Smoking Epidemic* (1979).

## THE ROLE OF TELEVISION IN NONSMOKING PROBLEMS OF CHILDREN: A QUESTION OF PERFORMANCE

To determine the role of television in the smoking problems of children, it is necessary to examine also the role of television in the lives of children generally.

A broad review of the literature on the subject would include reference to the sense in which children pay attention to television, comprehend what they see and hear, how children retain the subject matter of television, and just how they interact with television and its programming. Here, however, the sense in which television influences the **performance** of the child will be the centre of discussion, for ultimately, with respect to smoking, that is what counts. "Performance" refers to the display in real life of acquired responses, whether verbal or behavioural. A necessary condition for performance is acquisition, that is the taking-in of information, attitudes and value systems. Acquisition can only be measured by some sort of performance. In practical terms, all the variables that affect acquisition also affect performance.

Maccoby (1959) illustrates why acquisition and performance must be considered separately. She argues that a child may learn parental behaviour by observing his parents, although these behaviours will not be performed until the child becomes a parent. Put differently, acquired responses may not occur until the person encounters eliciting conditions, or roles (Bandura, 1965 to 1969, 1971; Bandura and Walters, 1963; Mischel, 1968).

What one perceives as the alternatives available in a given situation influences the response that one may give. When there are not alternatives, or only a few, the likelihood of display will be affected by the acquisition of new alternatives. Once past early childhood, most humans have acquired a repertoire of responses that may be displayed in a given situation and performance comes more to depend on a number of additional factors.

A good deal of behaviour, contends Bandura (1971), is cognitively mediated and controlled by anticipated consequences of actions. Young children, for example, are more likely to aggress against peers than against parents because they accept different consequences for performing the same behaviour (Bandura and Walters, 1959). The behaviour is governed by the subjective

perceptions of the person, the objective circumstances and on the basis of information acquired previously. In other words, behaviour here is influenced by the individual's "image" of his world or social reality. This "image" includes all of those things that constitute the social norms and expectations held by the child (Roberts, 1971).

Performance, then, is a function of at least two factors: the conditions and contingencies operating in the external real-life situation, and the child's individual cognitions or perceptions about those conditions and contingencies. For example, the presence of a teacher may sharply decrease the probability that a teenager will smoke in the school hallway. However, a teenager's perception of cigarettes, teachers and school will influence the probability of performance. The teenager who believes he can charm the teacher out of punishment, or who expects praise from his peers for his actions, is more likely to smoke in the hallway than someone who fears and respects the teacher.

Television may have minimal influence on social behaviour to the extent that performance is **governed** by the first set of conditions. Incentives and conditions in the social environment are not under the control of broadcasters. However, television can influence social behaviour to the extent that it influences the norms and expectations that a child brings to the behavioural situation. Many psychologists agree that children's definitions of social reality are largely dependent on socially-mediated information, and several have pointed out that mass media are important sources of such information (Bandura, 1969; R. Brown, 1965; E.E. Jones and Gerard, 1967; Roberts, 1973). Television's influence on social behaviour lies in some ability to teach new behaviour, and also in its contribution to the young person's definition of what constitutes appropriate and inappropriate behaviour and what constitutes the situational and behavioural contingencies which should control performance (Leifer and Roberts, 1972). For example, to the extent that television content influences children to expect that aggressive behaviour is frequently rewarded or that submissiveness is the appropriate behaviour for women, or that smoking is a common and acceptable practice, the medium can be expected to influence behaviour (although not to a known degree). This is not necessarily to imply that television content is more im-

portant than other agents of socialization.

It is generally accepted that television most effectively influences the role of social behaviour either when it reinforces the attitudes, expectations and definitions promulgated by direct experience and interpersonal communication, or when it defines situations about which other sources have not provided information (B.S. Greenber, 1974; Klapper, 1960; Roberts, 1971).

With the respect to children, performance itself depends, of course, on many of the same stimulus-related, child-related and environmentally-related factors that mediate acquisition. Some typical examples follow.

Television content that provides information about the **likely consequences** of various actions, like smoking, for example, or about the conditions under which behaviour, like jogging, for example, can be effectively carried out, or about what constitutes appropriate behaviour, such as nonsmoking, in various situations, has been shown to affect the likelihood of children's performance of similar behaviour. A number of studies indicate that when symbolic behaviour is explicitly portrayed as **rewarded** or punished, subsequent performance of similar behaviours on the part of children respectively increases and decreases (Bandura, 1965; Elliott and Vasta, 1970; Leifer and Roberts, 1972). Further, performance is more likely to follow after viewing models who manifest characteristics that imply **positive consequences**. This is often influenced by models who are high in prestige, attractive or powerful (Schramm, 1968).

Those behaviours shown on television that are portrayed as **justified** (Berkowitz and Rawlings, 1963; Collins, Berndt and Hess, 1974), to the extent that the behaviours are effective even though negatively evaluated (Bandura, Ross and Ross, 1963; Zajonc, 1954), and to the extent that they are portrayed by role-appropriate models (Hicks, 1965), or by characters or within situations which children can easily **identify** because of perceived similarity, increase the performance of television-mediated behaviour.

Children's perceptions of the appropriateness of portrayed behaviours also appear to depend on the "**reality**" of the presentation. The more realistic or true-to-life the content, the more likely viewing is to lead to subsequent performance of observed behaviour (Berkowitz, 1962; Feshbach, 1972).

There is some evidence that the **fre-**

**quency and consistency** with which certain behaviours are portrayed leads children to perceive those behaviours as appropriate, as reflections of society's norms or definitions of what to expect in the "**real**" world (Gerber and Gross, 1976; Leifer and Roberts, 1972). Of course, the extent to which television content forms children's definitions of social reality is influenced by the same child-related variables known to be factors in connection with the acquisition process. Whether a child will associate portrayed behaviours with portrayed consequences, for example, or comprehend particular consequences as positive or negative, or a behaviour as useful, or a portrayal as realistic, depends on such child-related characteristics as age and level of cognitive development, sex or personality. In short, the acquisition of social norms and expectations from television is governed by the same conditions as is the acquisition of behaviour or fact (Comstock, et al., 1978).

Clearly, then, television is only one of many contributors to a definition of social norms. Regardless of where young people acquire social norms and expectations, however, the degree to which they control behaviour depends on how well the behaviours have been "**internalized**". Thus, while a child's inhibition of anti-smoking behaviour, like smoking, for example, may largely depend on some external sanction, like punishment or rejection, for another child the performance may be governed by an internalized control, such as expectations of self-condemnation or a feeling of guilt.

Comstock, et al. (1978) point out that a number of variables influence the degree to which social norms are internalized. One of the most important in the present context, however, is age. Socialization is a cumulative process. The more experience the child has with social situations, and the longer he has been exposed to definitions that are both explicit and implicit of the rules of social behaviour, the more likely he is to have internalized those rules. It follows that the likelihood that internalized social norms will govern the overt performance of any behaviour is inversely related to age.

Considering the relationship between acquisition of television-mediated behaviour and age, we are faced with the situation where younger children are less likely to learn complex behavioural sequences but more likely to perform the behaviours that they do learn because of lack of internalized norms. Older

children, who experience little difficulty acquiring behaviours from television, are also more responsive to internalized social norms. These norms have been defined by many other sources in addition to television. This point becomes particularly critical if one considers the evidence that young children often comprehend and retain specific behaviours and actions portrayed on television, but not the contingencies surrounding them. The pre-schooler may learn about smoking and note that smoking frequently occurs. The child, however, may not comprehend the contingency surrounding such behaviour. By virtue of his age, he is also less likely to have internalized controls against smoking and thus is more likely to try out the observed behaviour of smoking at some time, if only in later life in the face of other conditions.

Berkowitz (1962) has argued that the more a situation is similar to that portrayed on television, such as the setting of the situation and the types of characters in the setting, the greater the likelihood that the child will display the behaviour portrayed on television. Berkowitz (1965) reports a series of studies showing that when elements that are similar to those portrayed on television are present in the child's real-life situation, performance similar to that exhibited on television increases in the child. Subsequent performance of observed behaviour increases the more nearly the child's situation or setting matches that of the setting represented on television (Flanders, 1968; Schramm, 1968; Shirley, 1973).

Comstock, et al. (1978) review how information provided directly to the young person by his environment also influences how he interprets and accepts television information. When television provides information about social situations and norms which are unavailable to the person, from other sources or from direct experience, that information is likely to guide overt responses if and when the person encounters a situation similar to that portrayed on television. Way back in 1933, Peterson and Thurstone reported that the attitudinal impact of movies dealing with various ethnic groups was greater with unsophisticated children or children from homogeneous rural towns, as opposed to a large heterogeneous urban centre where there was more direct contact with other ethnic groups. Later, in 1958, Siegel revealed that the impact of radio programs on second-grade children who had little or no experience with taxi drivers. B.S. Greenberg (1972) found that children from rural and suburban backgrounds were more likely to say that they used television for information about how to behave with black people than their urban counterparts. Those in the urban setting, where blacks and whites work and live together in a normal fashion,

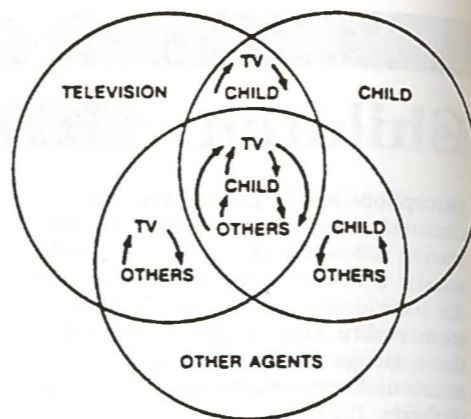
reported less use of the medium for this purpose. Gerson (1966) found that when necessary information about dating behaviour was not easily found in the immediate environment of teenagers, the teenagers reported turning to television to get that information.

The importance of parental influence in the smoking patterns of children is well documented. A body of literature not related to the smoking problem or to television shows that parental behaviours and sanctions, as well as the manner in which these behaviours and sanctions are communicated, significantly shape the expectations and behaviour of children (Baumrind, 1972; Maccoby and Jacklin, 1974). Also, there are a number of studies indicating that comments made to children by adults while viewing a television program significantly affect the way the child interprets the program and the likelihood that the child will subsequently perform behaviours acquired from the program (Prasad, Rao and Sheikh, 1978; Corder-Bolz and O'Bryant, 1978). Children who view Sesame Street in the presence of parents who discuss the program with them learn significantly more than the children who view it alone (Ball and Bogatz, 1970).

In summary, the period between birth and the end of adolescence is a period of rapid change. In 20 years, experiences, capabilities, all undergo developmental changes, most of which have implications for the relationship between television and the young person (Roberts, 1973). Age locates: (a) degree of experience against which to judge new information, (b) qualitatively and quantitatively different cognitive capabilities and strategies by which new information is processed, and (c) different physical capabilities for performing a behaviour. As a result, although for convenience one may often speak of how television influences "young persons" or "children", it is rapidly becoming apparent that in many instances the question is how it influences and is used by 4 year olds, 6 year olds, 10 year olds, and perhaps 14 year olds. Unfortunately, the wealth of literature on children and television fails to deal in any major way with these considerations.

#### TELEVISION FOR THE SUPPORT OF NONSMOKING AMONG CHILDREN AND YOUTH

The foregoing discussion as it relates to television as an agent of change in the performance of children and in the sense in which it is an agent for socialization with children can be sketched in the following figure:



#### Hypothesized relationship between television and other agents of socialization.

SOURCE: Adapted from A.D. Leifer, N.J. Gordon, and S.B. Graves, 1973. *Children and Television: Recommended Directions for Future Efforts*. Center for Research in Children's Television, Harvard University.

In this figure, all influences on the behaviour and socialization of the child, such as parents, peers and environment, have been collapsed into the segment called "Other Agents". Also to be taken into account, of course, are socio-economic factors, levels of education, literacy levels and social conditions. The figure emphasizes that socialization is a process of many interactions. The young person may be directly influenced by television or others. Each may be influenced by the child. Television and other agents also interact. At centre, multiple interactions among the child, television and other agents is apparent. The effect of television on young people is more likely to be better understood as a result of such multiple interactions than it is as a direct influence.

In designing a program, therefore, to use television in support of nonsmoking, television should be regarded as but one of several elements of the program for change or support. The initial viewpoint that mass media exercises an all-powerful or hypodermic impact on receivers was popular in the 1930's and 1940's (Lazarsfeld, Berelson and Gaudet, 1948). This notion soon fell out of favour, however, due to lack of evidence of the direct impact of mass media in influencing voters during elections. The onset of systematic scientific research studies after World War II led to pessimistic conclusions among several media specialists and funding agencies that media were impotent. Subsequent research recognized that the "silver bullet" compliance models of communication and change were insufficient (Schramm and Roberts, 1971). Examination of the direct influence of television on changing beliefs and attitudes and broader cognitive behavioural trends were carried out

(Becker, McCombs and McCloud, 1975; Blumler and McLeod, 1974; Kraus and Davis, 1976; McCombs, 1972). In the health field, Griffiths (1957) suggested three basic steps necessary for bringing about change in behaviour that depend not only on the use of mass media but on other social change efforts as well. The three steps were: (1) creating or changing perceptions (beliefs, attitudes, values, feelings), (2) utilizing motivational forces, (3) providing for the decision to act. All three, he maintains, must be considered for a realistic attempt at changing or in-

fluencing smoking behaviour. Fishbein (1977) describes "an empirically-based" socio-psychological theory of the relationships among beliefs, attitudes, intentions and behaviour that is consistent with and can account for all the diverse findings in the smoking literature. These spokesmen, and others, are clear that the ultimate goal of changing smoking behaviour can be achieved only in relation to changes in other human states besides behaviour. The following figure illustrates what some of these human states and desired conditions are:

#### HUMAN STATE

#### DESIRED CONDITION

<p>PERCEPTIONS</p> <ul style="list-style-type: none"> <li>- beliefs</li> <li>- attitudes</li> <li>- opinions</li> </ul>	<ul style="list-style-type: none"> <li>- People are more attractive when they don't smoke</li> <li>- Most people don't smoke</li> <li>- Smoking leads to poor health</li> <li>- If I smoke I increase my chances of getting cancer</li> </ul>
<p>INTENTIONS</p> <ul style="list-style-type: none"> <li>- motivation</li> <li>- enthusiasm</li> <li>- commitment</li> </ul>	<ul style="list-style-type: none"> <li>- Never begin smoking</li> <li>- I will quit on Monday</li> <li>- I will hang out with kids who don't smoke</li> </ul>
<p>BEHAVIOUR</p>	<ul style="list-style-type: none"> <li>- Continued nonsmoking</li> <li>- Stop smoking</li> <li>- Throw out ashtrays</li> <li>- Avoid smoking situations</li> </ul>

Further, there is evidence that some change methods are more suited than others for bringing about desired changes:

#### TO BE CHANGED

#### MOST EFFECTIVE CHANGE METHODS

<p>PERCEPTIONS</p>	<p>Mass media methods (television, radio, posters, billboards, pamphlets)</p>
<p>INTENTIONS</p>	<p>Group methods (family, classroom, clubs, community programs, workshops, seminars, conferences, business and workplace)</p>
<p>BEHAVIOUR</p>	<p>Personal decision and change methods (individual, face-to-face, e.g., parent-to-child, teacher-to-student, doctor-to-patient)</p>

The strength of mass media is in supporting or crystalizing beliefs and attitudes. People are more effectively motivated by other people. Individualized face-to-face methods are often the necessary final touch for important decisions that lead to action and change (Escarpit, 1977; Atkin, 1978).

This is not to say that one change method has exclusive jurisdiction over a given behaviour or pattern of change. It is important, however, that expectations for the effectiveness of a given approach are not unrealistic in relation to probable outcomes. A strong mass media appeal for smoking control may yield disappointing behaviour results if the interpersonal is missing totally or in part, either in group settings or in one-to-one situations. However, beliefs, opinions and levels of awareness may be significantly changed or supported following mass media efforts. Group activities in the classroom, for example, and social movement influenced by policies and laws restricting smoking in public places, may be supportive of nonsmoking in the short run but insufficient in the long haul if there is no mass media promotional support. One-to-one situations, particularly among peers or between individuals with mutual respect (husband and wife among adults, father and daughter, brother and sister) or in authority situations (doctor to young patient, teacher to student) are often at the root of major behavioural or lifestyle changes in individuals. Ideally, the three change methods mentioned work together supportively, and all three are necessary for a cogent, comprehensive smoking control program. It should be clear by now that a strong media program is not meant to take the place of personal contact through schools, community groups, a doctor's office, or the home. When the three approaches are combined in a supportive, nonsmoking climate, we maximize the potential for creating what has been called in the UICC manual *Guidelines for Smoking Control* "... a living atmosphere of social rejection of the smoking habit, an atmosphere where no one wants to smoke."

#### TELEVISION AS AN AGENT FOR SUPPORTING AND CRYSTALIZING ATTITUDES AND BELIEFS

Early in this Article, a number of assumptions regarding the "Smoking Problems of Youth" were expressed. In sum, the assumptions point to the importance of providing appealing and popular examples for young people to imitate and model. The International Union Against Cancer technical series, Vol. 73, *A Manual on Smoking and Children*, states:

Since more children do not smoke than do, the highest priority for pre

vention should be allocated to maintaining the nonsmokers as nonsmokers. This calls for support and reward in all our educational efforts. By so doing, the nonsmokers will be encouraged to stand firm, to become impervious to peer pressure, curiosity and other inducements to smoke and increasingly will be seen as popular exemplars by the coming generation. . . ."

Given that mass media in general and television in particular for the purpose of this discussion, have their strength in influencing perceptions (beliefs and attitudes) we shall see next how support and strength for nonsmokers to remain nonsmokers is derived from television. First, a brief review is offered on the nature of the television medium, its content, the viewer and the viewing context.

### The Medium

The medium of television is pervasive. In Canada, 98% of homes have at least one television, and 94% of Canadians use the set every day. The following table illustrates the extent to which television permeates free time in several countries:

Television Usage and Free Time in 12 Nations for an Average Day (in 1965)

Sample Site	Percent Set Ownership	Percent That Watched Any TV	Minutes of TV Viewing		Total Mass Media		Total Free Time	
			Total	As the Primary Activity	Mins	TV Percent	Mins	TV Percent
USA (Jackson)	98	80	134	101	135	75	310	33
USA (44 cities)	97	80	129	92	131	70	301	31
East Germany	85	72	100	81	108	75	233	35
West Germany	76	64	87	74	112	66	300	25
Belgium	72	65	94	84	137	61	297	28
Czechoslovakia	72	52	73	66	116	57	239	28
West Germany (100 dists)	66	56	74	63	98	64	264	24
France	65	65	96	58	91	64	245	24
Poland	59	60	82	70	120	58	262	27
Peru	54	47	63	54	87	62	309	17
USSR	52	40	45	42	116	36	249	17
Yugoslavia (m)	49	41	47	41	81	51	222	18
Hungary	45	36	45	43	85	51	200	22
Yugoslavia (k)	35	35	48	37	87	43	311	12
Bulgaria	26	17	17	16	79	20	231	7

SOURCE: Adapted from J. P. Robinson, and P. E. Converse. 1972. The impact of television on mass media usages: A cross-national comparison. In A. Szalai (ed.). *The Use of Time: Daily Activities of Urban and Suburban Populations in Twelve Countries*. The Hague: Mouton and Co., pp. 197-212.

An average child between the ages of 4 and 12 in Canada spends four hours of each day with television, that is nine years of his life by the age of 65. Television influences eating, sleeping, conversation, family interaction and social movement. In short, many aspects of modern life are influenced by the television medium by virtue of its impact on the use of time and on social interaction. Television has become a way of life in many

countries of the world. Health educators have an opportunity to integrate their perceptions into the character of life for most children, on most days, where the children are in the privacy of their homes.

### The Content

In most countries, and certainly in North America, programming of all kinds, from comedy, to drama, to variety, to documentary and news, is designed first and foremost to entertain. Entertainment formulas, thus, become the structure of any content, message or imagery offered through the medium. There is a good deal of repetition throughout programs and commercials. The illusion of motion on the screen makes for immediacy and intimacy. Things move only in the present. Television, thus, affords, through the illusion of movement, something for the viewer to deal with in the present — an experience, an existential happening. Television, through its fast-paced content, is an experiential mode that does not support "hard-core" factual information, statistics or the didactic approach. It provides, rather, appealing imagery, appealing identifiable characters and models and a feeling of

reveals that television is a very poor information source. Because of the program formula and the enjoyment expectation of audiences, little substantive content is retained. Rather, overall impressions and feelings are remembered in slim detail. Audiences participate intensely with programming, and are not "passive" as is the common belief. But the participation is not one of critical awareness or intellectual effort. Because of the repetitiveness of programming in format, characterization and content, because audiences wish to be entertained and relaxed for long hours each evening, and because the viewer seeks the familiar rather than the unfamiliar, the participation is what Herbert E. Krugman (1965) terms "passive participation". This is participation not unlike that of dancing, where one loses oneself in familiar rhythms and movements on the floor, or like bicycle riding, where one is unaware of the many familiar functions he is performing, or like the rock concert, where intellectualization or objective discussion has little place. One can remain in a room with television for hours in a stretch without discussion, without being asked to recall and never having to untangle the

participation — more akin to a musical concert than to, for example, the rational process of reading the printed page.

### The Viewer

Individual personal differences notwithstanding, audiences the world over go to the television set primarily to be entertained. They do not, generally speaking, go to be informed or challenged; they go to print for that. Research

unfamiliar. As in the above analogies, the more regular and intense the participation, the less the critical awareness.

In a way, audiences treat television programming as though it were a cliché of our everyday language. In a metaphorical and sometimes literal sense, they watch the same show time after time and see the same commercials again and again until they become second nature through hours each day of participation. Although

they may not be able to recall the details of shows and commercials, somehow they assimilate them along with the implicit attitudes, beliefs and values programmers put in them. Like clichés, programs and commercials are very familiar but we pay little attention to them and have stopped trying to pry out their meaning. We "become" the commercials and programs we participate in each day in the sense that we unconsciously begin assuming their perception of our social and personal conditions. Attitudes towards women, sex, ethnic groups, children, religion, health, even smoking, are a part of situation comedies and dramas. Beliefs about life after death, democracy, capitalism, pollution, conservation, are in a variety of talk shows. Values relating to love, hate, tolerance, ecology, are in documentaries, dramas and news. The implicit messages can go unnoticed and as such have influenced us long before we know it.

### The Viewing Context

The viewer, whether child or adult, is engaged in a private, unthreatening quiescence of home, in semi-darkness, usually in a relaxed, often uncritical, state. There is no need for human interaction or discussion of the program being viewed. Often, viewing is taking place, however, when other things are going on. Children will play in the room for hours, for example, when there is a television present and turned on (J.P. Robinson, 1972).

The nature of the television medium, its typical content, the way children interact with television, and the viewing context leads to a view of television as a dominant experiential force in the lives of children. As health educators, we are faced with the realization that the television networks and stations exist and are there for us to use, and that audiences are attracted to programming that already exists and that is imperceptibly changing beliefs and attitudes. Changes take place, of course, in relation to the beliefs, attitudes, intentions and behaviours already held by individuals in the audience. It is up to health organizations to ensure that the beliefs and attitudes implicit in programming reflect nonsmoking. Television should be used in all aspects, not just through commercials and public service announcements, but through existing programming as well. Smokers must be shown that nonsmoking is a normative condition, that the alternatives to smoking are more desirable than smoking. Nonsmoking should not only be the norm on television, but should appear to be the norm. What follows are a few recommendations or tips on how to use the medium in support of continued nonsmoking among children and youth.

### RECOMMENDED USES OF TELEVISION FOR NONSMOKING

On the basis of the review of television's character, its strengths and weaknesses, and its influence on the performance of children and youth, the following tips are offered in support of television's use in supporting nonsmoking among children and youth.

(1) Use both public service spots (15, 30 and 60 second) and programs (15, 30 and 60 minute).

(2) Repeat the public service spots as often as possible. Repeat the programs as often as possible as well and repeat the nonsmoking theme in a frequent and constant fashion throughout the programs.

(3) Tailor spots and programs for the specific audience in mind according to age. For example, in the United States and Canada, audience research has found the following:

- (a) A pre-school child prefers cartoons, situation comedies and non-cartoon children's programs, generally in that order;
- (b) By the first or second grade, situation comedies dominate the list of preferred shows and their presence as favourites remains substantially well into the beginning of adolescence;
- (c) The end of elementary school years tends to mark a transition period when, in addition to the situation comedies and even some of the cartoons favoured by younger children, action and adventure, music and variety, and various dramatic shows begin to come into favour;
- (d) By the middle of the teens, "adult" entertainment programming tends to dominate the list of preferences (Schramm, 1971; Lyle and Hoffman, 1972; Schramm, Lyle and Parker, 1961).

(4) Programming and spots should be entertaining. North American evidence is that audiences go to television to watch television rather than to watch specific programs. Typically, they search the various channels until they find the program that is least objectionable and stay with that. In other words, audience tastes for entertainment demand that programming be structured to entertain. Where there are competitive channels or competitive programming, audiences will choose those usually that are most entertaining or at least most unobjectionable (Klein, 1979).

(5) Refrain from offering statistics, excessive information, and avoid using a heavy didactic approach.

(6) Use characters and character types that are familiar, popular and have a high appeal for the target audience. What the

character does is more important than what he or she says. The character should serve as an appealing and cogent model of behaviour.

(7) Use both adult characters (models) and young or peer-aged characters. There is some evidence that young people appreciate and learn from others of their own age (Atkin, 1978).

(8) Audiences tend to trust sources similar to themselves that they directly identify with. Spokespersons with ordinary attributes are also effective as well as those with outstanding or heroic attributes (Atkin, 1978).

(9) Programs should show the beneficial social and personal aspects of remaining a nonsmoker.

(10) Situations shown should be as close to the children's "reality" as possible, and be "true to life".

(11) Situations that portray the nonsmoker as being rewarded for nonsmoking behaviour are desirable.

(12) Programs that appeal to the emotions are preferable over the programs that appeal to rational and logical thought.

(13) Avoid using fear tactics showing the health consequences of smoking. There is no evidence that such tactics work, and it is more effective to support pro-social, desirable, rewarding imagery of nonsmoking (Atkin, 1978; Farquhar, et al., 1977).

(14) Programs and spots should be scheduled according to peak target audience viewing patterns. Programs scheduled in the wrong times or against very strong competition on alternative channels will not reach the critical audience.

(15) Where possible in programs and spots, tie the imagery and messages, the attractive characters in the situations portrayed, to other elements of a comprehensive nonsmoking program that includes the schools, community and home. In other words, the television effort should not be an end in itself, but should be an ostensible part of an overall comprehensive program utilizing group and individualized methods.

### PRACTICAL EXAMPLES OF TELEVISION USE

Organizations and funding bodies desirous of influencing smoking patterns of youth must, of necessity, take the cost benefits of efforts into account. Two general approaches should be considered in the use of television. The first is to persuade the television industry to incorporate the nonsmoking emphasis into existing program formats and schedules at no cost to the health organization. The second is for the health organization or

agency alone or in cooperation with other agencies to develop programming and promotional materials at cost and to buy space and time for their use as part of an overall smoking control program. Both approaches are expanded on briefly next.

#### Incorporative Programming

Many countries have had good success in persuading the television industry to incorporate nonsmoking content into existing program formats. In Canada, the annual "National Non-Smoking Week" includes the carriage of non-smoking messages, skits, films, presentations and dramas in children's programs, in news, in public affairs programs and in situation and variety programming that are regularly scheduled. This is accomplished by approaching program developers in the television systems with ideas, materials, films and background evidence on the subject six months before the National Non-Smoking Week is to be run. This allows program planners and television stations time to prepare for the support they are giving. Often, health organizations or agencies have access to well-known personalities, heroes, politicians, actors, who are willing to donate time and efforts for the nonsmoking topic. In fact, health organizations often get the cooperation of well-known national figures more easily than do television stations or programmers. Well-known sports figures and television stars are more likely to donate their efforts to the Canadian Cancer Society, for example, than they are to the CBC or CTV networks that serve the country. Follow-up visits and letters, phone calls and promotion to the television stations ensure coverage prior to National Non-Smoking Week. Following the Week, letters and expressions of public appreciation are offered by the Canadian Cancer Society and other health organizations for the support given by the media for National Non-Smoking Week. The news coverage before, during and after National Non-Smoking Week on the subject of non-smoking encourages parents to be mindful of their influence on the smoking patterns of children.

The American Cancer Society sponsors The Great American Smoke-Out which follows similar patterns to National Non-Smoking Week. The Great American Smoke-Out program is detailed in the Proceedings of the 4th World Conference on Smoking and Health entitled *The Smoking Epidemic*. The American Cancer Society makes good use of famous American movie stars and television personalities to give examples of the dramatic and glamorous identification of nonsmoking. Most of this effort is donated by the actors and time is given free by television networks and stations.

#### Health Organization-Sponsored Television

A number of studies have been conducted in several countries that include television in smoking control programs. Some of these include children and youth as target audiences. A good deal of the research is based on the assumption that a single intervention through television or film should result in immediate behavioural change. Thus, when the evidence indicates little significant change in behaviour, it misses an opportunity to demonstrate the sense in which attitudes and beliefs or general perceptions are influenced by the intervention.

In the United Kingdom, M. Jefferys in 1962 conducted a project through BBC Television on "Smoking and Health". The twenty-five-minute program produced in a "Spotlight" series was broadcast to schools. Its effects were assessed using pre-test, post-test evaluation designs with a matched control group. Six pairs of secondary schools near London were used in the experiment. The twenty-five-minute program was in the format of a doctor talking and using graphs, diagrams and a healthy and a cancerous lung to show the relationship between smoking and death and illness. Extracts from films helped to illustrate how experimental work points to various adverse effects of smoking. At the end, the doctor showed how advertisers encourage young people to smoke, teenagers were interviewed with the resulting messages of how most young people begin to smoke and how they attempt to emulate their smoking friends. The cost of smoking was stressed and alternative ways to spend money were suggested. A prominent sportsman, television personality and the doctor talked about their reasons for not smoking. Little difference in the smoking patterns of young people in the experimental and control groups were shown. However, a much higher proportion of young people in the experimental group were able to identify the desirability of nonsmoking from a social and health point of view than those in the control group (Jefferys, 1963).

O'Keefe conducted a study in the United States to examine the relationship between attitudes and smoking behaviour utilizing the anti-smoking campaigns launched on television by the various health organizations in the late 1960's. The investigation was carried out in Orlando, Florida, and the immediately surrounding cities. The sample was broken down into those people under and over 21 years of age, and questionnaires and telephone surveys were used to obtain information. During the time of the study, 80 to 100 commercials were shown each week. These commercials were produced by the health organizations but were carried free on the net-

works and local stations. The ads were aimed at persuading young people and adults to stop smoking or to persuade them not to begin smoking. Ninety percent of respondents indicated that they had seen commercials, and 50% were able to recall specific commercials. Thirty-four percent of students said that they had cut down smoking as a result of the commercials, and 22% of the students said the commercials had made them stop smoking temporarily. Thirty-four percent of students said they thought more about the effects of smoking as a result of the commercials, and 49.7% indicated that they wished to quit smoking. In an overall sense, 63.1% of student smokers and 72.7% of smokers in general population subscribed to the belief that smoking is harmful to one's health, but 2/3 of the sample did not change their smoking behaviour (O'Keefe, 1971).

In 1969, Porter conducted a study in Ontario, Canada, through an educational campaign on cigarette smoking and disease using contests, speakers, films, radio, television, cinema, film clips, posters and pamphlets. Surveys were done before and after the campaign using questionnaires. These surveys were carried out in the community, secondary schools and elementary schools. This was a community-intensive program. Unfortunately, there was some difficulty in getting the mass media to carry the promotional material. There was no appreciable difference in behaviour noted in the community, particularly in relation to smoking as a result of the campaign. However, there was a significant increase in secondary school students' perceptions of heart disease as the greatest killer as a measure of information received through the promotional material. There was an increase of knowledge among students as to the curability of cancer. A significant percentage of high school students changed their minds to say that early treatment of heart disease was helpful and to endorse early treatment of cancer as worthwhile. There was a demonstrated reduction in levels of fear toward cancer as a result of the campaign. However, there was no significant effect demonstrated in the thinking of the population on the injurious effects of smoking on health. 85% felt that smoking was injurious to health (Porter, 1969).

What has been called the "North Karelia Project" was conducted in Finland to reduce the prevalence of smoking, the serum cholesterol concentration, and rising blood pressure among the population. Although this project was not directed toward youth specifically, it is a well-known study that should be noted here. The program included constant exposure through the mass media of television, radio, leaflets, posters and stickers; group involvement at health education meetings, public forums, schools and

places of work, organization and involvement of existing community health services in support of the program; training of personnel including teachers, volunteer workers, community leaders; utilization of environmental services such as nonsmoking restrictions and laws. The community program effectively reduced the levels of the three risk factors in the population. Approximately 7% of the adult population and 10% of the smokers watched some or all of the 45-minute television shows. Of the smokers, 20% gave up smoking and roughly 10%, or some 10,000 people, were still nonsmokers after six months or more. Among the viewers who took part in some 100 self-help groups that had formed in North Karelia, the cessation rate was roughly twice as large - 20% after six months.

The Stanford Heart Prevention program conducted through Stanford University in the U.S.A. utilized similar methods to engage entire communities in support of the nonsmoking process using mass media, group activity and individualized counselling, and has some positive results. Three years after the program started, the proportion of smokers had decreased by 3% in the control community, by 8% in the media-only community, and by 24% in the media-plus-counselling communities. Fifty percent of the high-risk smokers received face-to-face counselling, but only 11% receiving just media had quit.

In Canada, a large-scale nonsmoking program called "Time to Quit" was developed and tested by the Canadian Cancer Society and Health and Welfare Canada in 1982 to engage large populations in three half-hour television shows, full community-level publicity and support, and self-help smoking cessation material. These, and other projects like them, are special intensive programs from which we can all learn in developing our nonsmoking programs.

In the United Kingdom, the BBC is aired six 10-minute television programs on nonsmoking during January, 1982. Series was presented by Dr. Miriam Stoppard, who is known for her practical approach to health problems. Three people were followed over six weeks as they made the decision and deal with the difficulties and experience the benefits of stopping smoking. The program also featured advice from specialists in the smoking cessation field, success stories from well-known personalities, some humour, and hints and tips from some of the many millions of ordinary people who have successfully stopped smoking.

The above examples are by no means exhaustive, but give some indication of some of the successful and some not-so-successful approaches taken to use television in a program to support nonsmoking. Several articles are mentioned at the end

of this section which more fully review efforts that have been taken to use television and other mass media in the health field and a number of other fields from which example can be taken.

One final note here. In most countries, there is no tobacco advertising on television. In those countries where tobacco continues to be advertised on television, measures should be taken immediately to eliminate that advertising. The modelling influence on young people is considerable through television, and promotion of tobacco should be disallowed. In addition to this, in many countries of the world, tobacco companies promote sports and cultural events which receive coverage on television. This also undoubtedly influences the perceptions of young people toward the tobacco industry and the product itself. Measures should be taken in every country to restrict promotions of these kinds that adhere to the letter of the elimination of tobacco advertising from television but fly in the face of the spirit of the desire to remove promotion of tobacco through a mass medium of this power.

The television medium should be free of imagery and messages promoting smoking. This should be true of its advertising, its programming, its news and its current affairs. Health organizations and agencies concerned with smoking and health, particularly in relation to youth, have a responsibility to persuade television networks and stations to clean up the television air. Further, as has been argued above, health organizations and agencies have a responsibility to influence programmers to include nonsmoking imagery and messages in all forms of programs and to carry public service announcements and public service programming.

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#### In Upcoming Issues of CJEC:

- McNutt  
TOWARDS A WHOLLY OBJECTIVE
- Michaychuk and Yakulic  
IMPACT OF A LOGO PROGRAM ON NATIVE ADULTS
- Soudak and Karan  
FORMATIVE RESEARCH ON TELIDON AND EDUCATION
- Barron  
CHILDREN'S MEDIA WORKSHOP
- Braun and Kolomeychuk  
THE ART OF TELEVISION
- Laucht  
MICROCOMPUTER ACQUISITION CONSIDERATIONS
- Shears  
EDUCATIONAL COMMUNICATIONS PERSONNEL: THE NEW INTERNATIONALISTS
- Bates  
COMPUTER RESOURCE BOOKING: A DEVELOPING PROCESS
- Duncan  
PREPARING PERSONNEL FOR SCHOOL MEDIA AND LIBRARY SERVICE POSITIONS: SOME OBSERVATIONS
- Wyman  
SLOW ROAD TO INTERNATIONAL AV STANDARDS

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- Ghauremani, et. al.  
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- Palmer and Tesarowski  
STONY MOUNTAIN DISTANCE EDUCATION PROJECT
- Bennett  
RESULTS OF A STUDY TO IDENTIFY MAJOR FIELD TECHNIQUES AND UTILIZATION LEVELS BY CANADIAN INSTRUCTIONAL DEVELOPERS
- Lacy  
BLUE SKIES, GREY CLOUDS, OR FALSE DAWN: EDUCATIONAL APPLICATIONS OF COMMUNICATIONS SATELLITES AND THE PROSPECTS FOR DISTANCE EDUCATION IN AUSTRALIA
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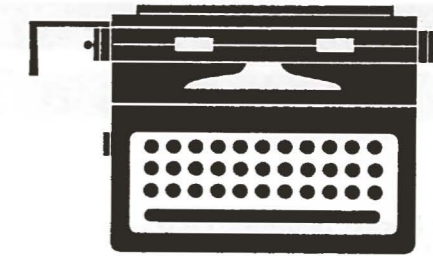
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## LETTERS TO THE EDITOR

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. . . And, in my position with the Vancouver School Board, I would like to congratulate you on the incredible development of your publication. It has become a "must read" journal in the last few years. I congratulate you!

Ken Haycock  
Co-editor, EMERGENCY LIBRARIAN

Your journal, Canadian Journal of Educational Communication is within the scope of the ERIC Clearinghouse on Information resources. . . We examine new journals for one full year before we make a decision concerning additions to our CIJE list. We will index and annotate articles from the first volume and subsequent issues. . . We appreciate your consideration of our request.

B.J. Vaughn  
Director of Acquisitions  
ERIC

I have just finished reading the January issue of CJEC and am very impressed with the quality and variety of the articles. You are doing an excellent job, Denis.

June Landsburg  
Co-ordinator,  
Knowledge Network Projects

Thank you for sending me the two issues of the CJEC. . . (My) article looks good and I thank you and your staff for the fine job you have done in putting together this unorthodox article.

Nikos Metallinos  
Assoc. prof. of Communication Studies  
Concordia University


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# Videotex as a Tool for Health Promotion

By Michel Bourque, Ph.D.,  
and  
Robert Perreault, M.D.

## Abstract

As one of the major components of health promotion, education is more and more becoming the focus of health planners. Based on the efficiency criteria validated for the traditional health education strategies, the exploration of the new computer-assisted media to pursue health promotion objectives offers challenge. It also raises important pedagogical issues which are discussed in the present paper based on the experience of the Tele-Health project. Using the Canadian videotex technology, Tele-Health produces and makes accessible numerous interactive programs for both public/patient education and continuing medical education.

## Introduction

As one of the major components of health promotion, education is more and more becoming the focus of health planners. The central reason for all this scrutiny lies with the obstacles that have been stressed in the health education literature regarding both its impact and its efficacy. Furthermore, many of the demonstration and evaluation studies that have brought positive results have been labor intensive making their generalization doubtful in an era of high economic constraints. Nevertheless, the work done in the last decade relative to the use of health education strategies to promote healthy lifestyles and competent help-seeking has validated a number of guidelines that may now be used as criteria for the exploration of alternative educational technologies.

According to Green (1980) who conducted a thorough survey of the literature on the subject, a number of pedagogical parameters have been shown to be effective in the transmission of health information: the communication of the material should occur in an interactive environment; the acquisition of behavioral skills should be favored; traditional pedagogical

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criteria should be respected; the education process should be integrated in the user's daily life; it should afford continuity with existing resources of this environment; finally, the potential solutions should be cost-efficient.

As can be seen, these observations suggest that the material should be adapted to individual needs and communicated in a way that provides immediate feedback. The selected teaching vehicle has to provide for the teaching of behavioral skills (Wright, 1981) as well as being able to convey information using the highest pedagogical standards. The process should be integrated in the user's natural environment so as to take place at moments and places of highest spontaneous motivation. This later item is specially important to subjects such as health behavior since the motivation to learn is rooted in individual experiences, perception and problem-solving skills. Any teaching vehicle that cannot adapt material to individual constraints has been shown to have very limited impact. Finally, health education systems need to be easily integrated in the already existing and very complex networks of health care delivery and health promotion organizations.

As a possible tool capable of meeting most if not all the above-mentioned criteria, computer-assisted interactive teaching has long been seen as a promising alternative to one-to-one health educator-patient interaction. While the field has been under study for nearly two decades (Slock and Slock, 1972), it is only recently that the available technologies have made it possible to overcome its two greatest drawbacks, namely the short attention span stemming from unappealing text displays and high cost of individual work stations and networks. The maturation of microcomputer technology has brought the cost down and the development of the high resolution color display technology known as videotex is rapidly solving the problems related to appeal and user friendliness in a cost-effective fashion.

## The Tele-Health Project

Over the past three years, the present authors have been developing and evaluating computer-assisted interactive teaching as a tool for public health education as well as for continuing medical education. Using the Canadian Telidon videotex technology, they are building a health information databank known as

Tele-Health (Perreault and Bourque, 1983). The public health bank (Table I) now comprises fifteen programs available to the general public both in private homes and on an experimental specialized network with terminals placed in the waiting rooms of health clinics, physician's offices and public places such as pharmacies. These programs were selected on the basis of public health

TABLE I

### Tele-Health: Public health databank themes

- Risk factors
- Food and health
- Alcohol
- Smoking
- Coping with stress
- Adolescence and adaptation
- How to select health care services
- Childhood infectious diseases
- Vaccination
- Insomnia
- Depressive states
- Headaches
- Cold and flus
- Digestion
- Cardiovascular problems

literature and nationally identified public health objectives.

In parallel to the public health project, Tele-Health is developing a professional databank with the goal of providing both continuing medical education and informational support to clinical practice. Table II lists the areas currently being

TABLE II

### Tele-Health: Professional databank themes

#### Informational support to medical practice:

- Objective criteria protocols for psycho-social problems
- Medication guide
- Drug interactions
- Poisons

#### Continuing medical education:

- Selected papers from the medical journals
- Essential bibliographies in health (edited by a panel of experts)
- Clinical epidemiology databank

developed. The professional databank is also designed as a participatory core building process under peer review.

## Pedagogical issues

On the basis of this experience, it becomes interesting to attempt to narrow down the pedagogical issues involved in the mediatization process of health-related material for the general public. There are of course many such models for traditional health education. (Green et al, 1980; Green, 1979; Hulka et al, 1975). Two factors motivate a new attempt (Bourque and Perreault, 1983). They are based on the fact that the telematic approach introduces new elements into the traditional equation such as direct and immediate access to information and easy tailoring of information to individual needs through computer intelligence.

The first factor relates to the reinforcement of the motivation required for behavioral change. The second issues a challenge to the assumption that formalized presentation of a topic represents a preliminary and essential component in any education process.

## Reinforcement of initial motivation

It has long been recognized in the literature (McAlister et al, 1982) that health information can be made available by many media saturation approaches but that behavioral change based on this information is only possible if people can become motivated to change. In order to achieve the motivation objective, traditional approaches to health education have had to overly expose people to problems and their solutions with the recognized drawback that the over-information required to achieve an appropriate level of sensitization is often a source of anxiety.

With interactive media, it becomes possible to use the impetus of an individual's spontaneous motivation as a vehicle to lead him to a desired sensitization process which can in turn be formulated according to the specific needs and interest of the person. Health information then becomes accessible through a myriad of entry points. A program focusing on dietary habits, for instance, could be entered through a meal-planning guide, an indigestion-management protocol, a calorie-counting table or any other entry point representative of the interests of target population sub-groups. All these entry points then lead to dietary habit information but only after the initial

interaction has reinforced each individual's reasons for using the system. By comparison, traditional approaches would have to provide streamlined information to the target population forcing people into a student role and potentially losing subjects through lack of motivation or raising anxiety through overexposure. The alternatives, all quite costly, would be to devise many programs and to multiply access procedure to various sub-groups or to provide face-to-face health education. This last approach remains one of the more potent tools available but usually has to be limited to high risk groups due to cost.

## Formalization

The second change that is being introduced in health education with the advent of computer-based instruction concerns the order of presentation of the various components involved in the education process. It has traditionally been necessary to transmit health-related information in a formal quasi-academic structure before suggesting the application of this information to a specific problem. With computer-based instruction, this structured approach becomes unnecessary as the information bank can be accessed from many entry points and the interactive nature of the process makes it possible to let the computer lead the user through the material. This feature turns the instruction vehicle into a problem-solving tool that can be immediately applied to whatever problem or preoccupation motivates contact with the system. The initial usefulness of the experience therefore, provides a strong reinforcement and paves the way to a formalized presentation of the topic if the user so desires.

People not interested in knowledge acquisition who would normally drop out of health education programs can use the computer to solve problems. It should be noted that even for these people, the computer will model a number of skills conducive to better health management and decision-making. Wright (1981) has shown simulation, modeling, feedback and repetition to be extremely potent tools for teaching behaviors and skills. Most of these components can be built into the computer interaction.

## Discussion

Conceptually, computer-assisted media do appear to avoid many of the obstacles met by traditional strategies in pursuing

health promotion objectives. Preliminary evaluation of the Tele-Health project tends to support this hypothesis. However, in their ongoing effort to keep pace with technological developments, health planners must avoid the lure of defining objectives that are subservient to the latest gadgets. A good way to avoid this pitfall is to analyse the new possibilities in the light of the very real objectives they have always had to meet in order to see when and how new tools can do old jobs better or deal with previously unreachable objectives. In the final analysis, and as interactive media gain maturity, systematic planning in the implementation of computer-assisted strategies seems very profitable.

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## BOOKS

Shirley Serafini and Michel Andrieu. **The Information Revolution and its Implications for Canada.**

Communications Economics Branch, Department of Communications. Canadian Government Publishing Centre, 1980. Canada. 113 pp.

## Reviewed by Ihor Cap

This book is one of a series of intended reports by the Canadian Department of Communications, aimed at making the public aware of the gap between the development of "new information technology" and its use. The authors Serafini and Andrieu, in this important and timely report focus on the new technologies in an international context and discuss its impact on Canadian economy and its implications for society as a whole. Serafini and Andrieu stress the need for formulating an integrated policy strategy designed to make the "information revolution" work for us.

Because this "revolution" is international in nature, surely, incentives that condition individual human-investment decisions should be in accord with wider social-interests. If people are to be affected in areas that may be relevant to them, then individual, minority, linguistic and cultural rights will grow in importance as well, especially when it comes to making choices about education. Perhaps, a more cooperative approach to planning on the part of the government will ensure that our resources are properly tapped, long overdue in such a rich diverse country as ours.

Furthermore, the area of "new information technology" leaves many unanswered questions that pose some serious transitional problems not only in our work place, but in our educational and government institutions as well. Hopefully, our government will give serious consideration to some of the other issues raised by the new technologies, and not overlook items such as print, media and computer literacy in their reports.

The book is readable and practical, and in some cases over-written, but it is work that should be read by every casual student of higher education interested in the new technologies. It provides us with well documented statistics, some useful charts and an appendix which includes a typology of "information occupations". This carefully argued report reviews the origins and content of "new information technology" and offers some alternatives,

to the public policies which direct that spending.

The report consists of seven sections. The first deals with those background assumptions which appear to be most relevant to the field of "new information technology". It also introduces the remaining six chapter titles of the report under the following headings: 2) The new empire of the information workers 3) The technological revolution 4) Issues raised by the information revolution 5) The experience of other countries 6) The Canadian experience and 7) The challenge for Canada.

In the second chapter, the authors attribute the increase in information-related activities of the economy to "information workers" of industrialized countries, whose primary function is the production, processing or distribution of information. However, they also suggest that there is reason for concern as well, because the growth in information employment will taper off in the near future. If that is the case, there could be serious implications for the overall level of employment and changes in the composition of labor.

In chapter three, Serafini and Andrieu briefly outline and examine the evolution and diffusion of information technology since the Second World War. They go on to tell us, that in the late 60's, one of the most imaginative inventions gave way to one of the latest technological developments, the silicon microchip. It boasts enormous storage capacity, ease of access to information and flexibility of programming for commercial, industrial and educational uses.

This general summary and assessment discusses the move towards miniaturization, fibre optics, satellite technology and digital transmission and switching, which create a whole new scope of delivering information to distances great and small. The combination of computing, micro-electronics, and telecommunications, which are the "new information technology" is that, it facilitates changes in the worker/machine ratio, not possible with mechanical technology.

Chapter 4 contains important perspectives for those who want to include values and ethical issues. Almost all the major policy issues which the "information revolution" raises are discussed at length. (1) The possible impact on productivity and employment (2) privacy of personal data stored and transmitted electronically (3) implications for Canadian culture inherent in the new technology (4) the ef-

fect on national sovereignty caused by transborder data flows and (5) the increased vulnerability of society. It touches upon virtually every aspect of our economic, social, cultural and political life as a people. In presenting the negative issues arising from "the information revolution", the authors however, are quick to remind us; "that in order to ascertain the degree of seriousness of the perceived problem areas, policy approaches must weigh potential benefits against possible negative aspects."

After having built the case, the authors systematic efforts to evaluate the effects of "the information revolution" are increasingly more evident throughout the remaining three chapters of the book. These sections include reports and discussions of those industrialized countries involved where an effort has been made to include values and issues. The authors are making a case clearly and reasonably and allow for the facts to accumulate en masse. The problem-areas identified in the report, that have been reviewed to some degree by the countries involved, include:

- \* protection against foreign competition
- \* government procurement policy,
- \* restructuring of industry,
- \* provision of venture capital,
- \* funding of R & D,
- \* use of standards to advance national interests,
- \* financial and taxation measures to promote development and use of new technologies,
- \* government financing of training programs,
- \* aid in developing export markets, and the
- \* establishment of public research institutes to conduct basic and applied research and transfer new technologies to the private sector.

The last two chapters consist of a general summary of the international overview which sets the scene for an assessment of the Canadian experience. Serafini and Andrieu speak of the "double challenge" Canadians are faced with. First, "the information revolution" is international in nature and governments everywhere are implementing policies

designed to gain international competitive advantages. Therefore, Canada must exploit the "new information technologies" if it is to maintain some degree of economic technological, political and cultural sovereignty in the future.

Second, there is an urgent need to develop an appropriate and coordinated policy response to this sweeping challenge. Jurisdictional disputes between the two levels of government and disagreements among the provinces on key issues are delaying policy development.

Other contributing factors to Canadian weakness in exploiting information technology are: (1) the lack of effective training programs, and (2) the low level of R & D in Canada. Serafini and Andrieu cite two types of educational activity vital to this task of readjustment.

\* formal education, to equip youth with skills needed in the new information economy and

\* adult re-education and training programs to upgrade their skills and adapt to the new needs of the work place.

In conclusion, most people will profit from a thoughtful reading of Serafini and Andrieu's report. It is undoubtedly a challenging contribution to debate, which in all practical sense reflects our government's determination to encourage awareness of the implications of "the information revolution".

Yoneji Masuda  
**The Information Society  
World Future Society**

## Reviewed by Marusia Foster

**Just as Toeffler's Third Wave** (1980) is an American view of technological change, and the Nora-Minc Report a French view, **The Information Society** provides an essentially Japanese overview of advancing societal and technological change. Particularly for educational technologists, Masuda's book has relevance to current trends of thought and apprehensions about technological change.

Yoneji Masuda is a well known futurist, founder and President of the Institute for the Information Society, and author of more than 20 books including the best-seller **Computopia**.

**The Information Society** is a completely rewritten version, for English

publication, of the book **Information Economics**, published by Sangyo Noritsu University Press. Unfortunately the translation is not always successful, and it is not an easy book to read. Yoneji Masuda, in this book, describes "The Plan for Information Society - A national goal toward the year 2000", developed by the Japan Computer Usage Development Institute. This plan was presented to the government with the idea that it can be realized by 1985. The goal of the plan is "the realization of a society that brings about a general flourishing state of human intellectual creativity, instead of material consumption".

The book consists of two parts. Part I deals with the question of when and through what stages the information society will be created. Masuda takes a systematic approach, reducing the structure of human society into major components such as values, trends of thought, innovational technology, the market, economic structure, and political systems. Through historical analogy and pattern analysis of past societies, he attempts to develop a new concept of each of these components in order to construct the future information society. He touches on actual projects in Japan, on model experiments such as the Telidon program in Canada, and Project Terese in Sweden. He makes projections on the implementation of technology in the future information society and attempts to predict when the information society might be realized.

This book was written six years after the actual plan was proposed, and among the various projects that were underway, the Hi-Ovis Videotex System (Highashi-Ikoma Optical Visual Information System) is of particular interest to those concerned with the new information technologies. These are two-way community information systems which combine computers with recent communication technology, and could be considered, in his opinion, as miniaturized prototypes of the information society of the future.

The Hi-Ovis System utilizes optical fiber cable instead of copper cable for two-way multiplex communication of video signals, audio signals and data, linking 158 households and ten public institutions. It provides four services: TV retransmission service, video request service, still picture services and TV studio broadcasting. Users can participate in a local discussion meeting, take part in foreign language lessons, participate in a quiz program, or register an opinion in a

public opinion poll.

Part II concerns the author's theoretic and conceptual studies on the information society. Here he discusses some of the basic concepts which are included in his information society: globalism, time value, the goal principle, the information utility, a synergetic economic system, information democracy, participatory democracy, voluntary communities and finally a vision of Computopia.

Masuda refers to the concept of a "high mass knowledge creation society" which he expects will be reached by the end of the first decade of the 21st century. This is the most advanced stage of the information society where the ready availability of information and knowledge will cause creativity to flourish. At this stage it is predicted that there will be a personal terminal in each household, used to solve day-to-day problems and determine the direction of one's future life.

With this advanced information society, Masuda introduces the concept of "time-value", the value which man creates in the purposeful use of future time. He believes "time-value" will ultimately replace conventional material values.

Yet another important aspect of this society is the concept of a "global information utility", a global information infrastructure using a combination of computers, communication networks and satellites that would enable one to obtain all necessary information readily, quickly and at a low cost, at any time and place in the world.

The principle most essential to this information society is the replacement of the principle of competition with the principle of synergy. The basic attitude of all participants in this system should be inspired by the "spirit of synergy", that is, each person "cooperates and is ready to voluntarily sacrifice one's own interests for the common good, levelling out the disadvantages and sacrifices to other persons and/or groups".

For educators, **The Information Society** has several important messages. As the new computer and communication technologies transform society, education will also enter a new period of innovation. Five educational aspects of concern will be: a lessening of the restrictions of formal schools; a personal type of education suited to individual ability and choice; a system of self-learning; knowledge-creative education and training; and

Continued on page 20.

MICROWARE

By Leonard F. Proctor

If you have suggestions or contributions that you would like to make to this column, please forward them to: Dr. L.F. (Len.) Proctor, Dept. of Educational Communications, College of Education, University of Saskatchewan, Saskatoon, Sask. S7N 0W0.

Given sufficient time to search for treasure, sooner or later, every gravel pit will yield a jewel. Similarly, when media specialists are searching through the growing number of Apple computer graphics generating programs, sooner or later a gem will be found. That gem is the Beagle Brothers' program, Alpha Plot.

While Alpha Plot will do much more than has been highlighted here, this review will explore only the features of this program which make it a very useful tool to use in the preparation of simple thermalgraphic overhead transparency masters.

Alpha Plot contains both a drawing mode and a typing mode of operation. One keystroke permits the user to shift back and forth from one mode to the

other while generating the desired graphic image on the Apple's video monitor.

In draw mode, the program generates high resolution lines, circles, squares and ellipses; again, on the basis of a single keystroke, the geometric figures may be obtained in either an outline form or a filled form. While the game paddles can be used to move the cursor around, the user will soon find that with minimal practice, the keyboard commands afford a greater degree of drawing accuracy than the paddles provide.

In text mode, the program generates only one style of proportionally spaced letters. While there are four different sizes available, the user will likely find that the two smaller sizes are called up the most frequently. However, this apparent lack of selection is somewhat compensated for by the fact that the text on the image can be made to appear right reading, sideways reading or even upside down. This feature can be a real boom when it comes to inserting labels on unconventional diagrams, charts and graphs. One disadvantage of the text mode is that not everyone will im-

mediately like to use this built in, distinctive, "checkerboard" style type face for this purpose.

Alpha Plot permits the simultaneous use of both of the Apple's high resolution graphics pages. This feature enables the user to superimpose any two images, view the results on a trial basis and then store the images in either their separate or combined forms. With the aid of this feature, masters for overhead transparency overlays are almost a breeze to produce.

This capability also permits the relocation or interchange of any rectangular section of the image on either graphics page. The relocation or exchange process can be achieved with the ease often associated with moving text around on a word processor. The user will come to really appreciate this very helpful utility when part of an illustration has to be moved in order to make room for the insertion of an overlooked or forgotten caption. Thus a great deal of redrawing and retyping can be avoided.

Alpha Plot, stores the generated images as standard Apple binary files. (May the Beagle Brothers forever prosper!) Hence, these files are readable and useable by other programs such as Zoom Grafix. Zoom Grafix enables the user to alter the aspect ratio of the image created by Alpha Plot. With this graphics printing program, the paper copy of the computer generated image may be further expanded or compressed and enlarged or reduced in much the same way as we are able to alter the size of an image with a zoom lens on a television camera. Thus, reasonable visibility standards for overhead transparencies are not only achievable, but "fun" to maintain.

To complete this review, a sample overhead transparency has been generated and reduced.

The hardware used to generate this sample master was a standard 48K Apple II plus and a C.Itoh Prowriter 8510A printer set to print unidirectionally. The software was, of course, Alpha Plot. Zoom Grafix was used to rotate the paper copy image into a horizontal format and raise the size of the Alpha Plot lettering to 3 units high by 2 units wide.

With this system, installed in a laboratory setting, twenty-four undergraduate education students who had little or no experience with the hardware and no experience with the software were able, with limited amount of coaching, to produce usable overhead transparency masters in one hour.



AMTEC Leadership Award

The premier award given by AMTEC is the Leadership Award, a handsome engraved gold medallion. There may be no more than two recipients in any one year, and it is given in recognition of outstanding service in the field of educational media. Following are the general criteria for the award:

1. The nominee must have been active in the educational media field for 10 years or more.
2. The nominee may have been active at either local, regional, national or international level.
3. The award may be presented to one who is active, retired or deceased.
4. Nominations may be made by any member of AMTEC.
5. The nomination must include a brief biographical sketch of the nominee as well as any other information which will be useful to the selection committee in making their decision. This should include the educational background and the reasons why the nominator feels the award should be made.

Presentation of the award(s) will be made at the AMTEC Annual Conference Awards Function. This will be part of the annual conference in London in June 1984.

Nominations should be submitted to the Awards Chairman as soon as possible. Address all nominations to:

**David MacDougall**  
 Director of AV and TV Services  
 Sheridan College of AA & T  
 1430 Trafalgar Rd.  
 Oakville, Ontario L6H 1L1

CONCEPT

MAMMAL

of animal that has a spinal

a mammal is a class

column and reads

Model case: DOG  
 Counter case: SNAKE  
 Related case: WHALE  
 Borderline case: PLATYPUS  
 Invented case: SNUFFLE-UPAGUS

... .. \*k!w uo 6uon st!

## From the Media Periodicals

By Patrick Wright

**BRITISH JOURNAL OF EDUCATION TECHNOLOGY**, 14:3, October 1983

Hawkridge, David & McCormick, Bob, "China's television universities"

Barker, P.G. & Singh, R., "A practical introduction to authoring for computer assisted instruction. Part 2: PILOT"

**THE COMPUTING TEACHER**, 11:4, November 1983

Cory, Sheila, "A 4-stage model of development for full implementation of computers for instruction in a school system"

Jarchow, Elaine M., "Teaching literature with the help of microcomputers"

Heid, M. Kathleen, "Calculus with **muMath**: implications for curriculum reform"

**THE COMPUTING TEACHER**, 11:5, December/January 1983-83

Torgerson, Shirley, "Classroom management for Logo"

McCauley, Jim, "Kepler"

Clements, Douglas H., "Supporting young children's Logo programming"

Lough, Tim, "A cure for recursion"

Riordan, Tim, "Helping students with recursion: teaching strategies"

Moore, Margaret L., "A recursion excursion with a surprising discovery"

Bull, G. & Tipps, S., "Problem spaces in a project-oriented Logo environment"

**EDUCATIONAL COMMUNICATION AND TECHNOLOGY**, 31:3, Fall 1983

Pressley, Michael, (et al.), "Mismatched pictures and children's prose learning"

Beck, Charles R., "Successive and simultaneous picture and passage formats: visual, tactual, and topical effects"

Carrier, Carol (et al.), "Supplied visuals and imagery instructions in field independent and field dependent children's recall"

Levin, Joel R. (et al.), "Learning via mnemonic pictures: analysis of the presidential process"

### BOOK REVIEWS

Continued from page 17.

finally greater emphasis on lifetime education.

Finally, Masuda presents his seven-fold concept of Computopia, a society in which everyone pursues the possibilities of their own future by acting in a goal-oriented way. However, it would be on a global scale in which "multi-centered voluntary communities of citizens, par-

in a logical well developed sequence. He does present some negative aspects such as the danger of an automated state or controlled society with the alienation of mankind and social decadence, but suggests that if we have complete information we will make the right choice and will not "succumb to the weaknesses" in the system. Unfortunately if one takes into account man's shortcomings and competitive spirit, Masuda's argument is not completely convincing. Possibly the

**EDUCATIONAL TECHNOLOGY**, 23:10, October 1983

Goldes, Harold J., "Designing the human-computer interface"

Norton, Priscilla, "Computer potentials and computer educators: a proactive view of computer education"

Tolbert, Patricia H & Tolbert, Charles M. II, "Classroom application of electronic spreadsheet computer software"

Yeager, Douglas M., "Educational recordkeeping at a large corporation: the NCR system"

Schwartz, Helen J., "Hypothesis testing with computer-assisted instruction"

Derry, James O. & Behnke, Ralph R., "Instantaneous feedback in the teaching/learning laboratory"

**EDUCATIONAL TECHNOLOGY**, 23:11, November 1983

Scanland, W. & Slattery, D., "The impact of computer-based instruction upon teachers: two perspectives"

Rockman, S., White D.J.D., & Rumpy, L., "Computers in the schools: the need for policy and action"

Tiene, Drew & Urakawa, Tomoji, "Japan's elementary science series: the chemistry of successful educational television"

Wileman, Ralph E. & Gambill, Thomas G., "The neglected phase of instructional design"

Duttweiler, P.C., "Barriers to optimum use of educational technology"

Borsnan, William J., "Use "driving force" to develop cohesive computer efforts in the schools"

Herschler, Michael S., "Use of computer simulation in teaching a college business course"

**INSTRUCTIONAL INNOVATOR**, 28:7, October 1983 (Special issue: "High tech in higher education")

Lipson, Joseph I., "How to keep up-to-date with high technology"

**MEDIA AND METHODS**, 20:3, November 1983

Howe, Samuel F., "Interactive video"

Pantiel, Mindy & Peterson, Becky, "School-friendly computers: the media specialists's key role"

"Guide to education in a nuclear age"

"Educational computer buyer's guide"

supposed cooperative nature of the Japanese culture is more suited to the evolution of such an information society. "This book is useful for its optimistic,icipating voluntarily in shared goals and ideas, flourish simultaneously throughout the world".

In general, the author presents his case Japanese-based discussion of a future society." It should be considered in conjunction with similar documents from other countries.

## Mediography

Media on Instructional Design

By Nancy Lane

This issue's mediography deals with instructional design; media useful for those involved with course design, student learning, and the planning of instructional activities.

**COME TO THINK ABOUT IT** Videorecording, TVO, 1979 6 - 30 min. programs, sd., col.

A series on teaching methods. Includes suggestions for motivating students.

**COMMENTS ON EDUCATION** Videorecording, NETCHE, 1975 30 min., sd., col.

A discussion of the state of education in the United States. With R. Glasser, F.S. Keller, W.J. Popham, B.F. Skinner and P. Suppes.

**CONCEPTS OF TEACHING** Videorecording, NETCHE, 1980 30 min., sd., col.

Designed to assist teachers in improving their teaching methods; the lesson looks at organization, participation, reinforcement, and enthusiasm.

**CURRICULUM DESIGN AND DEVELOPMENT SERIES**, Motion Picture, OPENU/ITF, 1980, 12 programs - 25 min. ea., sd. col.

This series looks at various aspects of curriculum design using case studies.

**EDUCATIONAL OBJECTIVES**, Videorecording, NETCHE, 1972, 3 programs - 30 min. ea., sd., col.

The role of objectives in planning for all aspects of the teaching/learning process is the subject here. Program titles are: "Formulating and Use", "Planning Lessons", "Evaluation of Achievement".

**EMERGING EDUCATIONAL PATTERNS**, Motion Picture, EDC 1971, 7 programs - 10 min. ea., sd., col.

Titles include: "Achieving Relevance with the Curriculum", and "Enriching the School Environment".

**GETTING IT ALL TOGETHER**, Motion Picture, MFFD/VEC, 1972 29 min., sd., col.

An illustration of instructional management as a school-wide process.

**THE HUMANITY OF TEACHING**, Motion Picture, MFFD/VEC, 1977 29 min., sd., col.

Educators discuss some major humanistic principles of teaching. Included are Herbert Kohl, and Jonathan Kozol.

**INNOVATIONS IN EDUCATION**, Motion Picture, STNFRD, 1966 28 min., ea., sd., col.

The titles in this series are: "Resource Center", "Stimuli For Innovation", "Team Teaching", "Technology in Education".

**INSTRUCTIONAL DEVELOPMENT - THE PEOPLE**, Motion Picture, MSU, 1972 15 min., sd., col.

Examines the problems encountered by educators seeking help with instructional problems.

## FOR YOUR INFORMATION

**INSTRUCTIONAL DEVELOPMENT - THE PROCESS**, Motion Picture, MSU, 1972 28 min., sd., col.

Psychological media aids and campus resource services are used to solve an instructional problem. Prerequisites for implementing an effective instructional development programs are outlined.

**INSTRUCTIONAL DEVELOPMENT - THE RESULTS**, Motion Picture, MSU, 1972 10 min., sd., col.

Examples of solutions to educational problems are shown here.

**IS ANYONE OUT THERE LEARNING**, Motion Picture, CBS/Marlin, 1978, 3 programs - 48 min. ea., sd., col.

This news report on American public education deals with the situation, the causes, and the solutions.

**LEARNING STYLES (INSTRUCTIONAL STRATEGIES)**, Videorecording, NETCHE, 1977 30 min., sd., col.

This research has implications for instructional design. Three models of cognitive styles are discussed.

**PERFORMANCE CURRICULUM I & II**, Motion picture, STNFRD, 1966

With Dr. Dwight Allen: the first program discusses issues in innovation, the second issues in organization.

**SCIENCE TEACHING**, Videorecording, NETCHE, 1971, 3 programs - 30 min. ea., sd., col.

Methods, Approaches, and Case Histories are examined in this instructional series.

**SECONDARY CURRICULA**, Videorecording, NETCHE, 1976, 2 programs - 30 min. ea., sd., col.

Curriculum development specialists debate the problems of the secondary education system and ways to revitalize schools.

**THE SUBJECT IS LEARNING**, Videorecording, TVO, 6 programs - 30 min. ea., sd., col.

Numerous applications of cognitive learning theory as they apply to actual classroom teaching. Titles include: "Eglinton Public School", and "Talking About Learning".

**TEACHER EFFECTIVENESS TRAINING**, Motion picture, MFFD/VEC, 1973 29 min., sd., col.

Thomas Gordon's system of management and motivation is described here.

**TEACHING ROLE - A SERIES**, Motion Picture, MFFD/VEC, 1968, 12 programs - 28 min. each., sd., col.

Titles include: "Essential Methods of the Teaching - Learning", "Creative Problem Solving", "Formulation of Objectives".

**THE TEACHING TRIAD**, Motion Picture, AIMS/ITF, 1974 19 min., sd., col.

This film shows how instructional management can and should include all aspects of each student's life - classroom, school, teachers, and parents.

# AWARDS

## AMTEC '83 MEDIA FESTIVAL

### AWARD WINNERS OF THE MONTREAL AMTEC CONFLUENCE '83 MEDIA FESTIVAL

#### FILM: AWARDS OF EXCELLENCE

(Post-Secondary) **The Bread We Live By**  
 Producer: Bill Somerville  
 Media Centre, University of Toronto

(Commercial) **David**  
 Producing Institution: Atlantis Films Inc.  
 Producers: Michael McMillan, Seaton McLean, and Janice Platt  
 Magic Lantern Films

#### FILM: AWARDS OF MERIT

(Post-Secondary) **La Cage Ronde**  
 Producer: Claude Lavoie

(Government Media Agency) **Precambrian shield**  
 Producing Institution: Manitoba Department of Education  
 Producer: Lee-Ila Bothe

(Other) **Esther Warkov: A Spy in the House**  
 Producing Institution: Manitoba Department of Education  
 Producer: Patrick Friesen

#### VIDEOTAPE: AWARDS OF EXCELLENCE

(Post-Secondary) **Le Centre de Cisaillement**  
 Producing Institution: Service pédagogique  
 Ecole Polytechnique de Montréal  
 Producer: Louis Faure

(Government Media Agency) **Landscape of Geometry: "It's Rude to Point"**  
 Producing Institution: TV Ontario  
 Producer: David Chamberlain

(Student) **The Accident**  
 Producing Institution: Ryerson Polytechnical Institute  
 Executive Producer: Graham Webster  
 Producer: Rae Hull

(Commercial) **Money: As Basic As Language**  
 Producing Institution: The Bank of Montreal  
 Producers: Magic Lantern Films

(Business and Industry) **"Joe"**  
 Producing Institutions: C.S.N. and Le Vidéographie Inc.  
 Producer: Norman Thibault

(Other) **Qu'est-ce qui M'arrive?**  
 Producing Institution: Hôpital Sainte-Justine Service audio-visuel  
 Producers: Jacques Viau, Suzanne Douesnard, and Jocelyn Demers

#### VIDEOTAPE: AWARDS OF MERIT

(Individual School) **Side by Side**  
 Producing Institution: The Mackay Centre  
 Producer: George Hargrave

(School System) **Safety Patrols — Part of a Tradition**  
 Producing Institution: Calgary Board of Education

(Post-Secondary) **Robin Hood and the Friar**  
 Producing Institution: Media Centre, Poculi Ludique Societas, University of Toronto  
 Producer: Michael Edmunds

(Post-Secondary) **The Speech and Language Connection**  
 Producing Institution: University of Saskatchewan, Division of Audiovisual Services  
 Producers: Dr. Zillah Parker and Elizabeth Janzen

(Government Media Agency) **Child Development — A Harmony of Dimensions**  
 Producing Institution: Access Alberta  
 Producer: Helen Cleave

(Government Media Agency) **Research: Improving the Odds**  
 Producing Institution: Alberta Agriculture  
 Producer: Tom Dodd

(Student) **A Conspiracy of Hope**  
 Producing Institution: McGill University  
 Producer: Kathleen Price

(Student) **Jean Larrivée — Guitares**  
 Producing Institution: Camosun College Victoria, B.C.  
 Producers: Jeff Edler, Greg Morin, and Cameron Scott

(Other) **Spread the Word — Television is for Learning**  
 Producing Institution: WCFE Channel 17 Plattsburgh, NY  
 Producer: Richard Mortimer

#### SOUND/SLIDE: AWARD OF EXCELLENCE

(Government Media Agency) **The Living Waters Edukit**  
 Producers: Access Alberta

#### SOUND/SLIDE: AWARDS OF MERIT

(School System) **For Teachers Only: A Candid Look at Computers in Education**

Producing Institution: Dalhousie School of Library Service  
 Producer: Sharon Meadows

(School System) **The Process of Writing**  
 Producing Institution: Calgary Board of Education

(Student) **Le Vieux Montréal: Stagnation ou Survie . . .**

Producing Institution: Johanne Collin  
 Producers: Jacques Collin et Johanne Collin

(Other) **Dévine ce que J'fais avec Mes Dents!**

Producing Institution: Service audio-visuel et Département de Santé Communautaire de la Cité de la Santé de Laval  
 Producer: Denis Hade

(Other) **River, Road, and Rail**  
 Producing Institution: Townships Association, Outrennt, PQ  
 Producers: Brian Morel, Donald Patriquin, Barbara Verity, & Ann Maclaren

(Other) **Something for Everyone**  
 Producing Institution: Canadian Intramurals and Recreation Association  
 Producers: Penney Dowswell

#### SOUND/FILMSTRIP: AWARDS OF EXCELLENCE

(Government Media Agency) **Wop May — Bush Pilot**  
 Producing Institution: National Film Board of Canada  
 Producers: Joe MacDonald and Floyd Elliott

(Business and Industry) **Waybill Coding/Part 2 - Repetitive: Matching Patterns**  
 Producing Institution: CN Rail Transportation Servocentre Training Montreal  
 Producers: William McKenna and Ken Wallin



## AMTEC MEDIA FESTIVAL

In conjunction with the annual AMTEC Conference, awards will be presented for excellence in the production of instructional media materials. A panel of judges may grant Certificates of Merit for productions meeting pre-established criteria. At the discretion of the judges, one Award of Excellence may be given in each category and class. All entries will receive a written critique from the panel of judges.

A selection of entries will be shown at the Conference. There will be an Awards function during which the presentation of awards will be made.

### RULES OF ENTRY

1. This form, or photocopy, must accompany each entry. AMTEC cannot assume any responsibility for material which is received without this form completed as indicated. Each institution is limited to a total of three entries, but not more than one in any category. Schools may submit up to three student entries, but not more than one in any category. Ensure that all materials and components are clearly labelled. Submit one entry form per entry.
2. Production must reach the Festival Committee by April 30, 1984.
3. PAY CLOSE ATTENTION TO THE "Target Audience and Objectives" statement on the reverse. Judging will be based on your statements and whether, in the view of the judges, the program meets its objectives.
4. Productions must have been completed after January 1 of the year before the conference.
5. ENTRY FEE — There is a \$10.00 entry fee for each submission. Please make cheque or money order payable to: AMTEC '84 Media Festival.
6. The film category includes 16mm and Super 8mm films mounted on open reels. This category does not include kinescopes or videotapes or other films made by means of electronic processes.
7. The Classification is subject to the approval of the Festival Committee.
8. The judging committee may award up to three Certificates of Merit in each category by class to entries which meet the pre-established criteria.
9. The judging committee may present an Award of Excellence for each category by class. The Awards of Excellence will not be presented if in the view of the judges no production merits this distinction.
10. Each production will be evaluated on its success in meeting the stated educational purpose or objectives as well as on its excellence of production.
11. The Media Festival Awards will be presented at the AMTEC Conference.
12. Entries must be shipped to: **Guy Léger, chairman**  
**AMTEC '84**  
**80 Sheppard Ave. E.**  
**Toronto, Willowdale, Ont. Canada**  
**M2N 6E8**



# ENTRY FORM

### CATEGORY (circle one)

1. 16mm or Super 8 mm (open reel) \*See Rule no. 6 on reverse
  2. Videotape (1/2" or 3/4" cassette)
  3. Sound/filmstrip (audio cassette)
  4. Sound/slide (audio cassette) (if possible, please enclose a videotape copy)
  5. Microcomputer CAI/CAL/CML Programs\*
  6. Microcomputer Utility/Application Programs\*
- \* (Apple, Atari, Commodore, IBM Personal, Radio Shack and Texas Instrument families)

### CLASS (circle one)

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

**A SEPARATE FORM MUST ACCOMPANY EACH ENTRY**

PLEASE TYPE

TITLE \_\_\_\_\_

LIST COMPONENTS \_\_\_\_\_

LIST EQUIPMENT NECESSARY (Manufacturer & Model) \_\_\_\_\_

SOUND/SLIDE or SOUND/FILMSTRIP CUEING SYSTEM \_\_\_\_\_

RUNNING TIME \_\_\_\_\_ DATE OF PRODUCTION \_\_\_\_\_

NAME OF PRODUCING INSTITUTION(S) \_\_\_\_\_

PRODUCERS \_\_\_\_\_

PERSON(S) SUBMITTING ENTRY - NAME(S) \_\_\_\_\_ TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_ TELEPHONE NO. \_\_\_\_\_

NAME TO APPEAR ON AWARD \_\_\_\_\_

TARGET AUDIENCE & OBJECTIVE OF PROGRAM (if necessary attach additional material) \_\_\_\_\_

Return Address \_\_\_\_\_

Will pick up material at Conference  By whom \_\_\_\_\_

Return by mail

Excerpts of winning entries will be transferred to videotape for the awards presentation and for the AMTEC Archives.

I accept the terms as stated in the Media Festival Rules of Entry \_\_\_\_\_

Signature & title of entrant

**READ CAREFULLY THE MEDIA FESTIVAL REGULATIONS ON THE BACK  
VERSION FRANCAIS DISPONIBLE**

## COMPUTER NEWS

This column is intended to be mainly a vehicle for informing members of current happenings on the Canadian and international educational computing scene. If you have news items you would like to submit, please forward them to:

Rick Kenny  
#54-4940 39th Avenue, S.W.  
Calgary, Alberta  
T3E 6M7

### New Educational Computing Research Journal

The **Journal of Educational Computing Research**, edited by Dr. Robert H. Seidman of New Hampshire College, is beginning publication this year. Its intent is to provide an international forum for interdisciplinary communication on research of computer-based education. It will address four primary areas of concern:

- a) the outcome effects of educational computing applications,
- b) the design and development of innovative computer hardware and software for use in educational environments,
- c) the interpretation and implications of research in educational computing and related fields, and,
- d) the theoretical and historical foundations of computer-based education.

Subscriptions are available from Baywood Publishing Co., Inc., 120 Marine Street, P. O. Box D, Farmingdale, N.Y., 11735.

### Survey of Computers in U.S. Schools:

A just-completed survey of U.S. school districts has determined that 55,765 public schools now use computers in instruction. That is more than double the number using computers one year ago. Both surveys were conducted by Market Data Retrieval, Westport, CT, which phoned all 15,275 U.S. school districts between July 1 and September 15.

Key findings of the survey were:

1. 68% of all schools have computers; 62% of elementary schools; 81% of junior highs; 86% of senior highs.
2. There are 325,000 microcomputers in U.S. public schools; 110,000 in elementary schools; 55,000 in junior high schools; 135,000 in senior high schools; and the balance in K-12 and special ed schools.
3. The number of computers in a

school varies with the grade level; the average high school has 11 computers; the average junior high has 7; the average elementary school 3.5.

4. Apple, Radio Shack and Commodore are the leading brands of computers used in U.S. schools. Schools are using 160,000 Apples, 68,000 Radio Shacks and 49,000 Commodores. Next in order of units used are Atari, IBM and Texas Instruments.

### Plato Network Now Available to P.C. Owners:

Control 1 Data Corporation has announced PLATO MICROLINK, a new software product enabling consumers direct access to selected portions of the PLATO on-line library.

PLATO MICROLINK is currently available for use with the IBM Personal Computer.

Personal computer owners will have to purchase an access disk (\$50) containing PLATO interface software and will pay both a \$10 registration fee and \$5 an hour for using the PLATO system. At present, users will be able to access more than 150 PLATO courses, games and services from 6 p.m. to 3 a.m. weekdays and 8 a.m. to 3 a.m. weekends and holidays.

An agreement between Source Telcomputing Corporation and Control Data Corporation will allow subscribers to THE SOURCE to purchase PLATO MICROLINK services at a reduced cost.

For more information contact Susan J. Busch, Public Relations Dept., Control Data Corporation, Box O, Minneapolis, MN 55440, 612/853-6605.

### Apple Releases the Macintosh:

Apple computer's new machine, the Macintosh (Yes, with a lower case i!) was released in January and is to cost about \$2495 U.S. The computer is light (20 lbs.) and is designed to be carried in a tote bag. It is, apparently, similar in design to the Lisa in that it uses a "mouse", allowing the user to give commands to the computer with the push of a button, and relies heavily on symbols and pictures on the screen for direction.

It has a few drawbacks as well. Unlike Lisa, the Macintosh cannot swap information between programs, it is difficult to expand, has a small memory (128K ?!) and does not have a colour monitor. Also, although Apple claims 100 software companies are developing products for the computer, only 5 programs were to be

available at its introduction.

### The National Logo Exchange

The **National Logo Exchange** is a monthly news letter which provides practical ideas and tips for teachers who use the powerful Logo computer language in their classrooms. Published September through May and mailed first class, **The National Logo Exchange** acts as a forum for sharing Logo ideas, teaching techniques and philosophies. Now in its second full year of publication, the NLX features articles by classroom teachers, columns by well-known professional educators, reviews and reports of the latest Logo versions and resources, and helpful Logo tips. \$25 per year for USA, Canada and Mexico; \$30 per year elsewhere.

For information, contact **The National Logo Exchange**, P.O. Box 5341, Charlottesville, VA 22905.

## Ideas Committee meets

Work is well underway on the preparation and publication of a new media ideas booklet. This booklet is designed to cater to all levels and areas of instruction. It is designed to address the needs of both education and industry.

Following the example of the Kodak Fact Sheets, the booklet will incorporate a series of simple to read, well organized, idea sheets. The booklet will be published by AMTEC and distributed to all members. It will be published in an 8 1/2 X 11 size, three-hole punched, designed to fit in a special AMTEC binder. The booklet is to be practical in nature and focus on using media in instruction. It is envisioned that each "idea sheet" will be written from a personal point of view, with emphasis placed on the practical rather than the theoretical.

The committee welcomes 'tried and true' or [or newly created] materials. The committee will be screening and editing submissions with release of the first material expected by September. Manuscripts (or questions) may be submitted to the Chairman, John Morrow, Resource Centre Co-ordinator, School District #34 [Abbotsford], 2343 McCallum Road, Abbotsford, B.C., V2S 3P5.

# "Time To Quit"

By Elinor Wilson, R.N., B.A.

The increasing number of people expressing the desire to quit smoking and preferring to do it on their own makes it necessary to develop and pilot new methods of programme delivery able to impact on large populations (Evans et al, 1981). The pervasiveness of television and its ability to enter all strata of society lends itself to programme development in smoking cessation and maintenance of this behaviour.

Taking the above into consideration, Health & Welfare Canada and the Canadian Cancer Society undertook a joint project developing a multi-media, community-based programme to assist individuals, aged 25-45, to quit smoking and maintain their non-smoking behaviour.

This article will discuss the Manitoba Interagency Council on Smoking and Health's involvement in piloting this programme in Winnipeg, a city of 650,000 people. While little evidence exists to support the contention that television can produce behaviour change, numerous studies indicate that television is effective in reinforcing the existing beliefs, attitudes and intentions of the target audience (Lau et al, 1978).

Television can also provide support for desired behaviour change by showing the new behaviour as the social norm (Fishbein et al, 1975), as well as "crystallizing" and reinforcing "attitudes and intentions" (Comstock et al, 1978). In the "Time to Quit" programme, the T.V. medium is utilized to promote the belief that certain behavioural changes are possible to accomplish smoking cessation. The individual's ability to achieve this desired result is further reinforced by the "positive imagery, attractive modelling and representation of non-smoking as a desirable norm" (Evans et al, 1981).

The "Time to Quit" programme consists of three one-half hour television programmes, a behavioural self-management booklet and a component of community mobilization aimed at increasing the effectiveness of programming.

"Time to Quit" targets 24-45 year old smokers moderately or highly motivated to quit smoking. The underlying assumption is that with this motivation an individual would employ self-management and utilize behavioural tasks to aid and maintain quitting behaviour.

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## Television Programmes

The television programmes were designed with several goals. In order to entertain, information on smoking cessation was provided by popular Canadian entertainers using a humorous approach. The content of the three programmes was designed to complement the three stages of quitting presented in the self-help booklet. The T.V. programmes did not attempt to educate or produce behaviour change but presented smoking cessation as a desirable behaviour and an attainable goal while empathizing with the smoker's difficulties surrounding cessation. Constant emphasis on success and support of an individual's ability to attain this goal would make it socially acceptable for individuals to attempt quitting and provide needed reassurance that this goal would eventually be achieved. The deliberately light approach taken to programming is a direct contrast to the usual "medical model". This approach could potentially impact a larger audience who might not tune in to hear another lecture on the evils of smoking.

The second objective of the television programmes was to direct people to the print material, that is, the behavioural self-management booklet which provided them with the actual tool to attempt smoking cessation. The content of the shows stressed throughout that these booklets were available and commercial messages at the end of each show indicated the pick-up point in the community.

We are already aware from advertising that T.V. has a powerful influence on individuals to "sell" them on what is important. A major purpose of the television programmes was to foster the attitude that smoking cessation is such a prominent and important issue that three one-half hour television programmes were devoted to it.

## Self-Help Booklet

The "Time to Quit" self-help booklet, in contrast, provides detailed information on how to quit. The self-help management programme utilizes self-control, self-reinforcement, and self-evaluation. The approach for the smoker is the identification of reasons for smoking and based on these reasons, identification of strategies enabling him to quit smoking and maintain this behaviour. The smoker utilizes a record-keeping mechanism to detect high risk times and situations and finds methods of dealing with these areas. The smoker also chooses a quitting method for his quitting day and prepares himself through practise and rehearsal for that time. The third step after actual cessation is reinforcement for the

behaviour and exploration of the side effects experienced after smoking cessation. It also encourages self definition as a non-smoker. Failure is discussed only in the context of the smoker making the choice of a wrong strategy for smoking cessation and encouragement given to choose another strategy and try again.

## Use of Mass Media

Mass media was used to "hype" the "Time to Quit" programme and as well provide the vital function of leading people to the self-help booklet. The three television programmes were broadcast by CBC during prime time hours (7:00-7:30 p.m.). They were aired on the same day and time on three consecutive weeks. As well, CBC designed three 30-second public service announcements encouraging people to watch the show and pick up their free "Time to Quit" booklet. One hundred and thirty-seven of these messages were shown over a three-week period prior to the first show. As well, a second commercial was produced, the focus message being a linkage to the self-help booklet. Through purchased air time, the three networks showed a total of 115 messages and, as well, gave free public service announcement time. If the public picked up their booklet first, the link to the television shows was accomplished by the use of a sticker on the booklet advising people to watch the T.V. programmes. This enabled one to either pick up a booklet as a result of seeing the T.V. commercial or see the T.V. programmes as a result of picking up a booklet.

## Radio Ads

A letter was sent to all radio stations explaining the "Time to Quit" programme and asking for public service announcements around the central theme of smoking cessation. These announcements also provided direction to booklet availability. Three radio stations provided a total of 106 public service announcements. The announcements were enhanced by the bantering of the disc jockeys regarding the smoking cessation problem and constant references on air to newspaper articles dealing with smoking.

## Newspapers

A series of three newspaper ads were developed utilizing a teaser-type of approach. Three ads, building on one another, were run consecutively in the same place in the newspaper for thirty issues. This enhanced the effect of the ad by having three ads per issue. This was done for both newspapers in the city utilizing staggered days so that for three weeks prior to the television programmes there was a daily newspaper ad. The

newspapers, as well, carried many other stories about smoking issues, which served to keep smoking in front of the public consciousness. These articles dealt with such issues as smoking and drug interaction, helpful eating habits while quitting, and smoking in the workplace.

## Billboards

Billboard advertising was used for a period of six weeks identifying where individuals could pick up a "Time to Quit" booklet. Twelve panels throughout the city were utilized with fifty Gross Rating Points daily. This exposure is considered a moderate frequency and visibility campaign.

## Readerboards

Businesses in the city that utilized readerboards or changeable neon signs for their advertising were approached and, as a public service, asked to run some kind of teaser ad for "Time to Quit". Such slogans as: "You learned to smoke, now learn to quit", "Have you thought about 'Time to Quit'", and "It's 'Time to Quit'" were utilized outside 109 different businesses.

## Press Conference

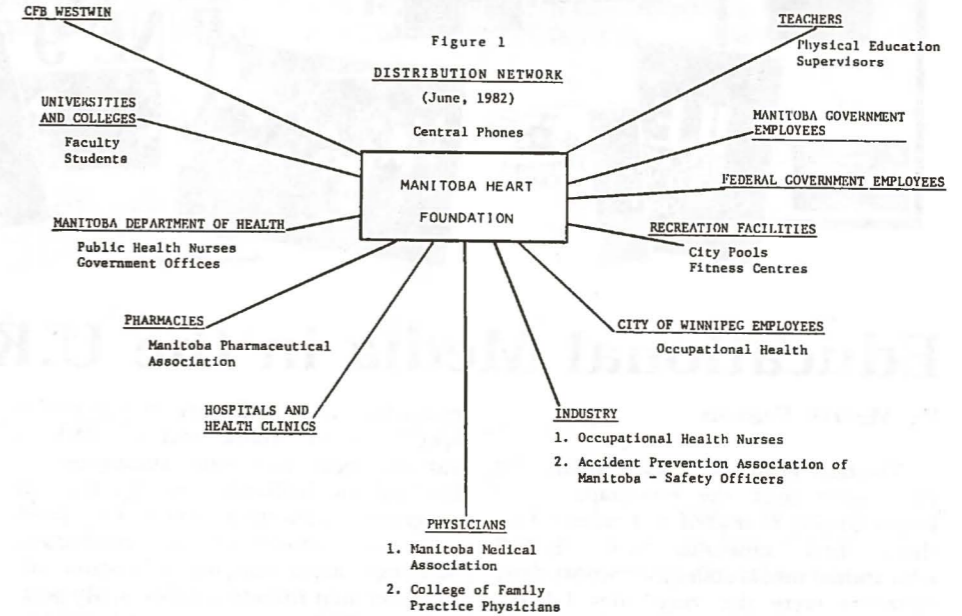
The beginning of this multi-faceted mass media push for the programme was staged to immediately follow a press conference held at the Legislative Building. The press conference had representation from Health & Welfare Canada, Canadian Cancer Society, Manitoba Interagency Council on Smoking & Health, and the Manitoba Department of Health. This press conference, attended by the majority of television and radio stations in the city, provided major coverage for the programme and a highly visible launch.

All distribution areas for the "Time to Quit" booklet were asked to hold their internal publicity and distribution to coincide with this press conference.

This combination of mass media was designed to provide saturation of the population to "Time to Quit" and lead the public to the television programmes, the booklet and active participation in the programme.

## Community Mobilization

Internal publicity and distribution of booklets were accomplished via a distribution network whose major task was to promote "Time to Quit" within their organizations and/or places of business. People involved in the distribution network were also responsible for internal promotion accomplished utilizing internal newsletters, posters and bulletin boards, displays, and contests among employees.



## Results

Although the Bureau of Broadcast Measurement calculated a rather low audience rating of three percent of the extended market for the television programmes (approximately 20,000 people watched the shows), one should realize what the television shows and mass media were intended to do.

The television shows were important reinforcers but the promotion surrounding them led people to the self-help booklet which can be utilized at any time. In Winnipeg, 86,000 "Time to Quit" booklets were distributed throughout the community. The survey, following the "Time to Quit" programme, of booklet pick-up indicated that pick-up range from distribution areas was between 55-100 percent, with a mean of 88 percent. Health & Welfare Canada also indicates through their research that the "Time to Quit" programme was successful in reaching 84 percent of the target audience - i.e. 84 percent of the target population of 22-45 years of age were aware of the "Time to Quit" programme.

Success is often defined as "the degree or measure of succeeding or attaining one's desired end" or "favourable termination of a venture" (Webster's Dictionary). It is naive to base the success of the "Time to Quit" programme on smoking cessation. The actual number of individuals who stopped smoking as a result of the programme will presumably approximate other smoking cessation programmes, however, in our experience, the programme has been successful. To the author's knowledge, no other programme in Winnipeg has reached that percentage of the population with printed

material or succeeded in attracting 20,000 viewers to a television programme on such a health related issue.

Success was reflected in community sensitization to smoking as an issue. For an eight-week period, citizens of Winnipeg were barraged by information on smoking via print, television, radio, billboards, and booklets. There were few who did not recognize the name "Time to Quit" and, as a result, Winnipeg had an increased awareness to the smoking issue. This is reflected in demand for smoking cessation programmes, bylaws to restrict smoking in public places and for information on smoking. It has also created requests to run "Time to Quit" within organizations and institutions as an ongoing programme. "Time to Quit" also allowed access to many community groups who are continuing their involvement in the smoking cessation area. It has given us a "foot in the door" in smoking cessation to many previously uninterested areas.

The Manitoba Interagency Council on Smoking & Health recognizes that there is no finite end to smoking cessation programmes. If run well in a community, sensitization of the public to the smoking issue will provide impetus for programming and legislative efforts for many years to come. This programme has also shown how concerted, co-operative efforts between government and voluntary agencies and the community, utilizing all methods of mass media, can have a significant sensitization impact on an entire community.

Continued on page 30.



## Educational Media in the U.K.

By Merrill Fearon

"The bear went over the mountain, The Bear went over the mountain..." I began singing to myself as I reflected on those first meetings with British educational media colleagues whose daily concerns were the very ones I'd left behind in Canada. My quick forays into learned publications, in preparation for my U.K. study visit, had given me visions: fresh fields of inter-active video, formative evaluation, and other educational-media esoterica to plunder at my leisure. In the U.K., however, as in Canada, education budgets were shrinking while teachers' needs for appropriate media resources were expanding along with students' needs for knowledge and skills. The chief concern was finding effective ways of providing more services for less money.

I ended up pursuing the practical problems of evaluating, acquiring, producing, and distributing media resources and came to realize the great value of my study visit in providing a sort of laboratory situation, in which I could see my own field of work from a distance, the view unencumbered by everyday responsibilities and local details. Of course I did run across a number of people who enjoyed discussing the fancy stuff — but the gulf between the Big Ideas and the real-live classroom is just as wide on that side of the Atlantic as on this, and the ordinary concerns seemed more important than the exotic ones.

And so began a grand gallop along the trails of "the other side of the mountain": talking to BBC and ITV education officers (field workers rather like program co-

**Merrill Fearon** is a program co-ordinator at the British Columbia Provincial Educational Media Centre. Her receiving a three-month Travelling Bursary last year from the Commonwealth Relations Trust (CRT) to study educational broadcasting in the U.K. to the CRT's asking AMTEC to sponsor an annual award, beginning in April 1985.

ordinators) and producers, and to media specialists, librarians, and teachers in various local education authorities in England and Scotland; viewing television programs; collecting kilos for print materials; observing at production meetings accompanying education officers on their rounds to schools. My position as a CRT bursar was most helpful in obtaining appointments with British colleagues, particularly since a tradition of reciprocity has been maintained through CRT bursaries for Britons to travel abroad. Even the busiest people were willing to give a half-hour, and one brief interview would often provide me with keys to a whole new set of networks. It was an action-filled summer!

Educational television in the U.K. seems to benefit a great deal from the rivalry between the two major networks — the BBC (British Broadcasting Corporation) and the ITV (Independent Television) companies. The IBA (Independent Broadcasting Authority) approves the plans of the Independent Television companies for educational broadcasts, the most widely used of which are produced by Granada, Thames, Central, and Yorkshire. I was surprised to learn that the BBC and ITV companies produce approximately equal amounts of educational programming and accompanying program guides; and that both have been producing educational television for about 25 years. In recent years, large amounts of money have been channeled into continuing-education television by both the BBC and ITV; many of us are familiar with series from both networks which have found their way into Canadian colleges and institutions.

Economies of scale have thus produced a steady flow of highly-quality educational broadcasts from the two large networks for 25 years. However there is no parallel provision of television acquisition services, so teachers' being able to make use of programs produced outside of U.K. depends on acquisition through diminishing local-authority budgets. And although the advantages of videotape use have

been studied and discussed a great deal, the popularity of programs using a demonstration class or a presenter giving instructions from the screen made me suspect that, even when automatic recording equipment in the schools made videotape available, teachers were using them in the same way they would broadcast. I'll be fascinated to find out whether the habit of this reliable broadcast service will hinder teachers in the U.K. from taking a stronger decision-making role in choosing media resources, as the new technologies become available in the classroom — for instance, video-disk storage and instant access by micro-computer to large numbers of "bits" of media resources. Perhaps the initiatives of the BBC School Radio department in providing night-time broadcasts, block-recording opportunities, and audiotape duplicating services — just begun in the autumn of 1983 — will begin a trend towards economies of scale in making learning resources available on tape.

People at all levels of the system were interested in our **Pacific Educational Media Centre (PEMC) Catalogue**, which includes films, videotapes, microwave, and audiotapes available provincially, and many wanted details on how we set up our evaluation and acquisition services. Comparing media resources available in our respective countries led to fascinating speculations about whether these times of restraint, along with recent multicultural developments in both countries, would actually lead to an opening-up of international exchanges of materials. It seems to me that in British Columbia, audiences are becoming more willing to accept foreign accents and situations. Is this a general trend, and will it continue?

Teacher-in-service videotape are increasing demand in the U.K. as they are in British Columbia, as school-district budgets decrease. I visited the BBC Open University Production Centre where in-service and self-study courses built around videotape are being produced for

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THE COMMONWEALTH RELATIONS TRUST

### Commonwealth Relations Trust Travelling Bursary: Call for Applications

Canadians working in educational media are fortunate this year in being able to apply for a bursary from the Commonwealth Relations Trust, which was established by a private donation in the 1930s to promote a common understanding and a unity of ideals between the United Kingdom and other countries of the Commonwealth, through the extension of human contacts and first-hand experience of current conditions. AMTEC has been asked to sponsor an annual award for educational broadcasters which pays for a three-month study visit to the U.K., beginning in the spring of 1985. Other bursars visiting the U.K. will be broadcasters, adult educators, trade unionists, and librarians from several Commonwealth countries.

#### The Bursary will provide:

- one adult return fare, by the most direct and economical means, to the U.K.;
- allowances for local travel and other out-of-pocket expenses;
- daily maintenance allowance on a generous scale for a period of three months from date of arrival.

#### Candidates should:

- offer assurances that they will not suffer financial loss as a result of taking up the award, but will continue to receive a salary;
- be communicators in their profession and in a position to influence opinion in their field of endeavour;
- have a reasonable level of education in order to make the best use of their stay in the U.K., and be able to act on their own initiative;
- not have been previously to the U.K., except for a short holiday visit.

#### Applications should include:

- a short statement of the applicant's proposed objectives in applying for a bursary, what she or he hopes to obtain from the experience, and what they feel they can contribute to the aims of the Trust;
- the special area or areas of study to be pursued;
- any known contacts in the U.K.;
- previous travel abroad, including any visit to the U.K.;
- address to which correspondence should be sent;
- a full curriculum vitae, including education and work experience, with dates.

The award winner will be expected to prepare his or her own program, obtaining advice about whom to visit, well in advance of his or her arrival in the U.K. by the end of April, 1985. A ten-page report must be submitted on conclusion of the visit.

If you would like to apply for this award, please forward the documentation described above to:

Merrill Fearon  
Chairman, AMTEC Committee for the  
CRT Bursary  
c/o The Provincial Educational Media Centre  
7351 Elmbridge Way  
Richmond, British Columbia V6X 1B8

#### Deadline for Applications:

Friday, September 21, 1984



## NEW PUBLICATION

### Courses in Educational Technology in Canadian Universities

**Content:** A comprehensive handbook on educational technology courses offered at 40 Canadian Universities. Information is current as of 1983 and includes: course listings; course level; credits designated; course duration and usual semester available. Contact persons for further inquiries are also included.

**Published by:** AMTEC – The Association of Media and Technology in Education in Canada

**Editor:** Garfield Fizzard  
Faculty of Education  
Memorial University of Newfoundland

**Costs:** \$5.00  
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Copies can be obtained from the Editor:

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## EDUCATIONAL MEDIA

Continued from page 28.

the Open University's new School of Education. These packages are of particularly high quality and must appeal to teachers, for they are expected to pay their own way through teacher purchases. My visits to the Open University were a pleasure: energy levels were high, and producers, subject specialists, and course managers seemed to be greatly enjoying a course-team method of working whereby colleagues with different roles and areas of expertise associate by invitation, and for which communication skills must be developed to a high degree.

It was an interesting time to be studying educational media in the U.K., because patterns of use were rapidly changing, and existing broadcast agencies were busy reaching out to explore the new-technology areas. Microcomputers, for instance: I talked to BBC Continuing Education department producers who were just finishing the "Making the Most of the Micro" computer literacy series, part of a project which led to the development and marketing of a special BBC Microcomputer System. The BBC was advertising its upcoming Telesoftware Service, which would broadcast computer programs to viewers with BBC Microcomputers. And people at the Open University were producing teacher in-service packages for the "Micros in the Schools" project.

My visit to the U.K. made me realize the importance of maintaining a healthy balance between developing our own "patch" (a common-garden British expression which I happily collected) and keeping in touch with what's going on in the field world wide. Back in my own patch now, I often make use of the documents, anecdotes, and ideas I picked up in the course of my study visit. And I look forward to sharing whatever information might be useful with the next Canadian to explore the other side of the educational-broadcasting mountain.

### "TIME TO QUIT"

Continued from page 27.

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The Educational Media  
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## The AMTEC Achievement Award Call For Nominations

The AMTEC Achievement Award is presented in recognition of outstanding ability in promoting the use or creative development of audio visual media in the classroom in the kindergarten, elementary, secondary, post-secondary or training environments. The successful recipient(s) will have made a significant contribution to the learning process employing audio visual media in the classroom.

The AMTEC Achievement Award is sponsored by the Educational Media Producers and Distributors Association of Canada (EMPDAC). The following are the general criteria for the Award:

1. The Award is in the form of an engraved plaque or plaques awarded annually by AMTEC at the National Conference.
2. The Award can be made to up to 5 recipients per year.
3. Nominations may be made by any member of AMTEC or EMPDAC. Nominations are made by the nominator submitting a letter to the AMTEC Achievement Award Chairman. The nominating letter and accompanying documents should indicate the following:
  - a. The name, address and telephone number of the nominator and the nominee.
  - b. A brief biographical sketch of the nominee.
  - c. A comprehensive description of the nominee's contribution including:
    - i. The purpose of the contribution
    - ii. Implementation and timeline details.
    - iii. The utilization strategy and/or creative development of the contribution.
    - iv. Evaluation of the success and/or results of the contribution.
  - d. Names, addresses and telephone numbers of the three individuals who are familiar with the nominee's contribution and who are willing to act as references for the nominee.
4. The AMTEC Achievement Award's Committee is appointed by the AMTEC Board and consists of at least three persons one of which will be a present member of the AMTEC Board.

Nominations for AMTEC's 1985 Achievement Award should be forwarded with the documentation noted above to:

Danielle Fortosky, AMTEC Achievement Award Chairman  
Director of Educational Television Production  
University of Saskatchewan  
Saskatoon, Saskatchewan  
S7N 0W0

# NOTES FOR THE GUIDANCE OF AUTHORS

The Editor is always pleased to receive for consideration articles on aspects of educational technology, media use and research likely to be of interest to readers. Topics of interest include: computer assisted instruction, learning resources centres, communication, evaluation, instructional design, simulation, gaming, and other aspects of the use of technology in the learning process. Two primary forms of contributions are welcomed: refereed articles, and notes and non-refereed articles. It is important that contributions conform to the notes below.

## Notes and Non-Refereed Articles

- Contributions for this category are welcomed from all members. Writers are encouraged to use a familiar, casual style. Jargon should be avoided.
- Contributors to this section surrender to the editor the responsibility of final copy edit. Articles will not be returned for author approval prior to publication.
- Contributions to this section do not require additional notes or references. If these are included they must adhere to the style guidelines for refereed articles.

4. Include your name, position, institution and mailing address.
5. Type contributions on 8 1/2 x 11 paper using a 60 stroke line, and double-spaced. Do not break words at the end of a line.
6. Non-refereed articles should be from one to five pages in length. Notes of upcoming events or other news should be one paragraph in length.

## Refereed Papers

1. Manuscripts should be 5-20 double spaced, typed pages.
2. Include an abstract of about 100 to 150 words.
3. The author's name, position, institution, and mailing address should be on a separate page.
4. Authors should send three copies.
5. Contributions are accepted on condition that the material is original and the copyright vests in the Association for Media and Technology in Education in Canada. Contributors must obtain all necessary permissions and pay any fees for the use of materials already subject to copyright.

6. Type contributions on 8 1/2 x 11 paper, using a 60-stroke line. Do not break words at the end of a line.
7. **Main headings** should be centered and typed in upper case. **Secondary headings** should be typed at the left-hand margin, using upper and lower case underlined.
8. All tables, diagrams, figures, or photographs should be submitted in camera ready format. Diagrams, tables, and figures should be provided on separate sheets of paper. The position of each item in the text should be indicated as follows:  
  
Table 1 about here.
9. References in the text should employ the author/date format (eg: Kowal, 1982). All references should be listed at the end of the paper in alphabetical order. The American Psychological Association Style Manual (2nd edition) should be referred to by all authors to ensure consistent reference style.
10. Spelling should conform to the Merriam-Webster **Third New International Dictionary**.

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Canadian Journal of Educational Communication  
Vol. 13 No. 3  
June, 1984  
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