

TELEVISION,
THE BOOK,
AND THE
CLASSROOM

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TELEVISION, THE BOOK, AND THE CLASSROOM

A Seminar Cosponsored by the
Center for the Book in the Library of Congress
and the U.S. Office of Education
and Held at the Library of Congress on
April 26-27, 1978

Edited by
John Y. Cole

The Center for the Book



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INTRODUCTION

On April 26 and 27, 1978, the Library of Congress and the U.S. Office of Education cosponsored a national seminar on television, the book, and the classroom. This collaborative effort between two government agencies had a purpose that runs counter to much of contemporary public comment about television. Books such as *The Plug-In Drug* by Marie Winn, *Remote Control: Television and the Manipulation of American Life* by Frank Mankiewicz and Joel Swerdlow, *Four Arguments for the Elimination of Television* by Jerry Mander, and *The Sponsor: Notes on a Modern Potentate* by Erik Barnouw have contributed to a general unhappiness about television and its effect on American society and culture.

The organizers of the seminar took a more positive view and assumed that television could, should, and eventually would be used effectively in the educational process. Seminar participants were asked to address these questions:

How can television be used imaginatively and effectively in the learning process?

What practical steps can be taken at the national level to integrate television, the book, and the printed word within the educational process?

The stated purpose of the seminar was "to stimulate fresh thinking and perhaps new partnerships" among the participants, with a special emphasis on the potential role of commercial television. Both public television and the commercial networks were represented. Other

OPENING REMARKS

DANIEL J. BOORSTIN,
THE LIBRARIAN OF CONGRESS

Welcome, ladies and gentlemen, to the first national conference sponsored by the Center for the Book in the Library of Congress. You have all been invited here tonight because of your special interest in this question, and I will speak for only a moment or two about the focus of our interest this evening.

We are here to help us discover or rediscover America, which we can do only by understanding the place of technology in our lives. One of the most interesting and most important questions concerning the place of technology in our civilization is the effect of one technology on another.

The relationship among innovations and inventions is one of the least understood and one of the most momentous questions in the history of humankind. It is also an area for the greatest flights of fancy, the greatest alarmists and Armageddon-mongers and the most extravagant utopians and optimists.

Nowhere is this more evident than in the relationship between television and the book. We have here, in this question of the relationship between the technology of television and the book, a melodramatic example of what I would call the displacive fallacy, the fallacy that an invention is a conqueror and makes the predecessor surrender. This is not so. As we discover in our own experience, each technology transforms the earlier one. For example, the telephone transformed the role of the telegraph, and radio and the telephone transformed the roles of all earlier technologies.

There were some prophets who said that the radio

OPENING REMARKS

ERNEST L. BOYER,
U.S. COMMISSIONER OF EDUCATION

In the summer of 1937, the great essayist and novelist E. B. White sat transfixed in a darkened room and watched a big electronic box that began projecting eerie, shimmering images into the world. It was his first introduction to something called TV. E. B. White—who not only wrote *Charlotte's Web* but also co-authored that great manual of clear communication *The Elements of Style*—said in 1938:

"I believe television is going to be the test of the modern world, and that in this new opportunity to see beyond the range of our vision we shall discover either a new and unbearable disturbance of the general peace, or a saving radiance in the sky. We shall stand or fall by television—of that I am quite sure."

Forty years have passed and television has to a remarkable degree fulfilled both of E. B. White's predictions. It has—at once—become both "an unbearable disturbance" and "a soaring radiance in the sky." Once we had a print-dominated culture. Ideas were built and assimilated slowly, and often with great effort. Now we inhabit a culture of images. Messages are sent and received instantaneously, and a premium is placed on the accessible. And what are we to make of all of this? How do we come to terms—educationally—with a world where messages have become more persistent and more varied?

When I was young, less than fifty years ago, there was no television in our home. I was twelve years old before we purchased our first radio. We did receive a

BOOKS, TELEVISION, AND LEARNING

MORTIMER J. ADLER

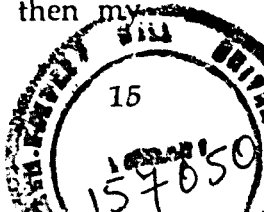
The letter I received from Mr. Boyer describing this occasion posed three questions to which he hoped I would address myself. From the way in which the questions were worded, slanted in the direction of the bookish member of this evening's little duet, I suspect that the questions put to Mr. Stanton were somewhat different. In any case, I liked the questions put to me and I would like to try to answer them. The three questions were:

First, what is the place of the book in a television society?

Second, what special qualities of the book ensure its central role in the learning process?

Third, how has television—the hours we spend with it and its content—affected our relations with books, with schooling, and with learning?

The second of these three questions seems to me to be the pivotal question and, therefore, I will deal with it first and with the remaining two questions later. The second question, as worded, appears to assume the superiority of the book in the learning process—whether in school or after all schooling is completed. Please note, Mr. Stanton, that the question does not ask *whether* the book occupies a central role in the learning process. It asks *why* the book occupies that role. If the assumption here being made—that the book is indispensable to the learning process, as television is not—is doubted or challenged by anyone, then my



TELEVISION AND THE BOOK

FRANK STANTON

Our presence here tonight is testimony to a significant truth, one we all applaud. It clearly demonstrates once again that this illustrious institution is not a mere book collector, a storehouse of what has been done, but that it is an activist in the promotion of things yet to come. In establishing the Center for the Book six months ago, Congress created a fresh advocate of the printed word as a vital element of American culture. This first public seminar, conducted with the U. S. Office of Education, sets the Center on a course which should greatly enhance our national life.

It is reassuring to me that this seminar pairs the first instrument of mass communication growing out of technological progress with the most recent. The book, made generally available by Gutenberg's ingenuity, has been an important instrument of education over the past five centuries. I believe television now has an equally important educational role, and I am persuaded that a partnership of the two will enrich all levels of American culture in future centuries.

That phrase, "all levels of American culture," is a crucial one in this discussion, for books and television both are ubiquitous. Television is a nearly universal medium of communication, and books also penetrate a wide span of national life. Both are involved in informing, entertaining and educating people at all social and economic levels. They must meet the demands of diversity as well as mass appeal.

Television is a newcomer to our mass communications mix. Although the technology was developed a

Discussion

The first question from the audience concerned television programs such as Jacob Bronowski's "The Ascent of Man," a successful BBC television series that also was published as a book. Mortimer Adler was asked if this series was not an example of a television program that introduced viewers to "the pain of learning" and if, in fact, the series had not performed a useful function in producing a book? Dr. Adler pointed out that books such as *The Ascent of Man* are written without television and that he saw no reason to give television any particular credit for the volume. Furthermore, this program and similar BBC presentations, such as Kenneth Clark's "Civilisation," are really "the very extraordinary exceptions in the television fare." Finally, in comparing the television series and the book, he said that there was no doubt that the book demanded greater intellectual effort and provided greater opportunity for understanding, that is, for "turning back pages, comparing what is said on one page and on another." He concluded by reiterating: "the book requires something of the mind that television can never require."

Frank Stanton's comments on the topic highlighted his basic disagreement with Dr. Adler as well as his different approach to the entire question. He stressed, as in his earlier remarks, that books and television should be thought of as complementary means of communication, that we are not faced with "an either/or situation." He remarked that there were two secrets that always had fascinated him: the secret to the learning process and the secret to the motivational process. What television was doing vis-à-vis the book was motivating people to turn to books and "it could be used much more for that purpose than it is being

THE VIEW FROM THE WORLD OF COMMERCIAL TELEVISION

ROY DANISH

I had originally thought we might turn the seminar topic around and ask what the book can do for television, but I think you all know the book does a great deal for television. It provides us with materials which we adapt, sometimes cripplingly, sometimes magnificently, for television viewing.

The question, I think, has been put as precisely as it can be. How can we encourage reading, which is a central tool for our civilization, and what can we do to avoid the risk that the rewards which reading brings will be denied to a generation which has so warmly embraced another medium?

The prospect is not quite so scary as the question may imply. Young people are learning to read. They do read. But there are storm signals which seem to tell us that in a society which demands more skills of comprehension we have not learned to foster more desire to acquire and to use those skills.

I don't subscribe to the notion that this was once a nation of readers and is no longer so. Yesterday, like today, had its addictive readers. But as every book publisher and book seller knows, the avid book reader has never constituted a large part of the population, nor has our society placed a high value on readership. Bookworm has never been a word of praise. Bookish is not much better. And what about book learnin' compared with plain old common sense?

This is a land of action and hustle. The notion of a professional athlete wearing glasses is one that has only recently become acceptable. And his specs better

Discussion

Lester Asheim suggested that commercial television's need to seek a large audience was perhaps the major reason the networks played such a limited role in stimulating the reading of serious books. Even the audience of one million reached by "Rich Man, Poor Man," for example, was too small for serious network concern.

Dr. Adler agreed that "the kind of books that are truly educative are read by a very small portion of the population, in school or out" but questioned whether this is necessary. If liberal education were extended to the total school population and all children made capable of reading, the situation could change. He added a final point of clarification:

I do know that children come to us as containers of different sizes. We have the half-pint child and the pint child and the quart child and the gallon child and so on up. When I say equal treatment of all of them, I do not mean putting a gallon of substance into the half-pint container. But what we are doing now is taking the half-pint containers or the quart containers as compared to the two-quart and gallon containers and putting in different kinds of filling—or trying to get different kinds of filling into them. I think we must put cream into each—a half-pint of cream in the half-pint containers as well as a gallon of cream into the gallon containers. When I have said this to large audiences of teachers and students they smile at me and say 'Well, you know, Doctor, you have never been in a big city school. You don't know those small containers have very small openings at the top. And cream is a very thick substance and doesn't get through easily.' And my

THE RESPONSIBILITIES OF PUBLIC TELEVISION

HENRY LOOMIS

To borrow a page from Mr. Adler's book—you notice I have used the right word—I would like to read the questions that I was asked to address myself to, which are slightly different from those of Mr. Adler. "What is the place of the book in the television society?" Well, that's as easy an answer. But, how can television be used imaginatively and effectively in the learning process? I think that is really what we're trying to talk about here. And, what practical steps can be taken at the national level to integrate television, the book, and the printed word within the educational process?

It seems to me that in the discussion so far, each of us is describing the elephant from our particular point of view. And, therefore, we are talking past each other as much as we are talking to each other. And part of that is because we haven't really agreed on definitions. I think that what we're talking about, in the final analysis, is the effect of books and television and learning itself on individuals. Mr. Adler uses the word reading when I believe he means thinking. He says reading doesn't count unless it's hard. I think what he means is that thinking isn't thinking unless it's hard. Whether you happen to read it or whether you happen to talk it in a discussion or debate, it is thinking. Reading may be an efficient way to make you think, but that's a different issue.

We're talking about how to give the individual a better insight into life, into himself or herself, into others; the full development of the person's capabilities,

Discussion

William S. Rubens referred back to Robert Geller's question about a possible moratorium on competition. While it is not practical in terms of programming costs for any network to "abdicate its attempt to reach its audience," it is possible and even healthy for the networks to engage in "opportunistic scheduling." For example, NBC thought the program "King" would attract a large audience on its own, so it was willing to put it up against very competitive shows. The network thought that "Holocaust" would not be able to sustain an audience on its own, so on the second night it was scheduled against baseball, which is not strongly competitive. This type of competition or opportunistic scheduling can work to the viewer's advantage, especially when a network decides to move aggressively toward new and live programming.

Carll Tucker chided the assembled group for failing to recognize "that books are in competition with television." Unless this reality is faced, he said, we are living in a "dream world." If we want to attract children to reading, they must be moved away from television, and what we need is a strategy for achieving this objective. Mr. Tucker recalled Commissioner Boyer's earlier comments about growing up in Ohio and noted that one of the reasons education seemed somewhat easier at that time was that Dr. Boyer "was more or less a captive audience and education was his only escape from the confines of that Ohio town." Today we are "the least captive audience in the history of the world in terms of intellect." We are faced with a multiplicity of options of which television is only one, but it is an "extraordinarily seductive" lure. Books and magazines are also part of this "smorgasbord" of options, but they do not appear to be major attractions.

BRIDGE-BUILDING AND THE EXPLODING ART FORM

MICHAEL J. McANDREW

Bridge: Any structure used to afford convenient passage over any obstacle.

The bridge I allude to is being constructed through the combined efforts of the media of the printed word and television, and this bridge is being directed toward the world community.

The use of the word "bridge" is rather significant as we investigate it more closely—and if there is a major obstacle which we have an opportunity to overcome, it would be the great need we have to understand and to master these media that exert amazing influences on our lives.

Generally, television and the printed word are considered competitors. But, uniquely, today these two giants are becoming more keenly aware that in the most substantive area, i.e., serving the community, they can complement each other.

And by joining forces they can begin to have an impact—a *significant* impact—in helping to resolve some of the major obstacles that exist in the world: (a) by helping to eliminate illiteracy throughout the world, (b) by helping to develop a greater understanding and appreciation of our fellow human beings, (c) by helping to relieve apathy—indifference at levels that most affect our lives, (d) by helping to create an atmosphere for dialogue within the family, within the community, (e) by helping to support and to direct a renaissance in education, in the traditional classroom, as well as outside the classroom.

Discussion

Mortimer Adler referred back to the phenomenon of the "Holocaust" telecast, with its hundred million viewers, and suggested that the program shed little light on *why* the holocaust happened or "what are the causes in human life and human society [that enable] so extraordinary an event to take place." Furthermore, it seemed unlikely that many of those who watched "Holocaust" would be able to read the two books that can shed light on it: Hannah Arendt's *The Origins of Totalitarianism* and Machiavelli's *The Prince*. Dr. McAndrew responded that he was certain that "Holocaust" had provided an introduction to many viewers who would pursue the subject further and perhaps even read the two books recommended by Dr. Adler.

Robert Logan said that thus far seminar participants had not tackled the crucial topic of "how television affects people's thinking and how print affects people's thinking." He emphasized the importance of writing for our thinking processes, pointing out that when one learns to read, one doesn't learn just to decipher symbols—one learns how to think in an analytic fashion. He said that

the big problem we're facing with television is that it's inundating our young people's minds and not giving them the opportunity to really come to grips with reading skills. . . . Through the easy access of information through television, we begin to lose those analytic skills which allow us to create more information. . . . We don't want to fill up those containers. What we really want to do with our children is to turn them into cows so they can create their own milk.

Brian Brightly directed attention toward "one of the last labor intensive marketplaces of the world—

THE VIEW FROM THE WORLD OF PUBLISHING

DAN LACY

After having heard with great interest the remarks of Frank Stanton, whose former company, CBS, is one of the world's great book publishers, and of the many people from NBC, whose parent company, RCA, through its ownership of Random House and Pantheon, is perhaps the country's distinguished literary publisher, I'm glad, as a representative of a proprietor of a group of TV stations, to have the opportunity to say something this afternoon. I feel sometimes I've fallen into a sort of autumnal and skeptical stage of life, and I'm inclined to suspect that almost every generally accepted belief is probably not true, and particularly generally accepted beliefs that are passionately held, and I think the discussion of books and reading and television is particularly obscured by some of these.

One of them is the belief that somehow television is obliterating reading as an art. Mr. Stanton last night gave some very interesting statistics on the tremendous increase in the sale and distribution of books and the library circulation of books during the television era. I can add to that only that the per capita sale of books (in copies, not dollars) in the United States today is probably about three times what it was twenty-five years ago at the dawn of the television era. And this isn't entirely mass market paperbacks by any means. The university press output is perhaps ten times what it was twenty-five years ago. The number of serious scholarly journals has all but exploded.

When you consider the enormous shift in the makeup of the work force, from unskilled jobs not re-

Discussion

Dr. Boorstin asked Margaret McNamara to comment on Mr. Lacy's remarks and to describe the role and function of Reading is Fundamental, Inc. (RIF), of which she is founder and chairman. Mrs. McNamara explained that RIF was established to breach a gap that publishers, schools, and libraries have difficulty filling—getting books into the hands of children. With the cooperation of publishers and, especially, local groups around the country, RIF *gives* paperbound books to children. She outlined how RIF functions, emphasizing the importance of freedom of choice in selecting titles, book ownership, parental involvement, community support, and close cooperation with libraries and schools, and said that putting books in the hands and homes of children was a vital form of bridge building.

The Librarian next asked Cyril Busbee to make any observations he would like from his perspective as a state superintendent of education. Dr. Busbee described the commitment the state of South Carolina has made to educational television, pointing out that "over two-thirds of our schools and school children regularly utilize the educational TV programs which are broadcast as a state enterprise by the State of South Carolina." He also outlined how the educational television system is used by the schools and the difficulties encountered in "getting the educational community to accept TV." Especially resistant are those teachers who know their classroom performances cannot compete with the television presentations. One of his greatest concerns, however, is the copyright situation. The schools themselves now have the capability of "recording and taping and replaying programs of educational value and merit," but when it is legal and when is it illegal?

TELEVISION MADE FOR THE CLASSROOM

EDWIN G. COHEN

I would like to begin by distinguishing television made for the classroom from the other kinds of television that have been talked about up to this point. The programming that is originated and delivered through commercial television, is seldom, if ever, made for the classroom. It has value through adaptation and that's the kind of capitalization, exploitation, that we have been talking about. It is a great resource that should be extended in terms of its utility.

Public broadcasting at the national level does not yet create program material that is made for the classroom. Most of the television that is used in the classroom is delivered by the broadcasts of individual non-commercial television stations, public television stations. They are the distributors typically of school programming. At the national level the interconnected public television service does not design and deliver programs made for the classroom.

In the few minutes that we have here, I would like to take you on a quick tour of the secret world of school television that has not been visited yet, I believe. What is it we're talking about? What does it look like?

Typically, what we're talking about are series of television programs that are designed for weekly use in the schools, either over the whole of the school year, thirty consecutive weeks, or for one semester, fifteen consecutive weeks. Typically, these programs are used by elementary school teachers as part of the regular classroom instruction provided by them. Each program

THE PARENT, THE SCHOOL, AND THE TUBE

ANN P. KAHN

I think everyone is aware that the PTA has been involved for almost two years in an effort to remove excessive violence from television's entertainment programs. I am not going to discuss that campaign at this time. Anyone who is interested may send for our material. What I would like to share with you today are some of the "offshoots" of that effort that seem to have meaning for this seminar.

First of all, the antiviolence campaign has involved parents and teachers in a discussion of the impact of television on our lives. Millions of parents have begun, for the first time, to monitor television, watching what their children are watching and how their children are responding to what they watch.

We talked earlier today about who should accept the responsibility for what has happened to television. Everyone had a different idea. Let me tell you that, as a result of our campaign, many parents feel very strongly that they must accept the primary responsibility for what has happened to television. I think they do so in a sense that goes beyond their roles as parents; they are accepting this responsibility as citizens who want to have an impact on the world around them. To that degree their role then goes beyond such responses as "If you don't like it turn it off" or "Shut that television off and read a book instead, whether you like it or not" and indicates that parents agree that they have a responsibility to improve the quality of television and also to take a look at some of the broader questions relating to television.

Discussion

Since the seminar was drawing to a close, Dr. Boorstin asked for comments from those who had not yet spoken. Linda Chavez of the American Federation of Teachers discussed AFT activities regarding the use of television in the classroom and called attention to articles and features in *American Education*, which she edits. Nancy Larrick pointed up several areas she felt had not been adequately discussed; the enormous effect of television characters such as Kotter, Kojak, and the Fonz on the language and behavior of preschool and elementary age children; the particular point of view of young parents and young teachers who themselves are products of the television age; and the way television affects a child's ability to learn. With regard to the last point, if a child has "had 5,000 hours of visual education before coming to school, how readily can he or she adjust to the linear, sequential kind of learning that is part of reading? How well can this child shift gears, "even with the best of teachers and all of the aids," to the type of verbal decoding that leads to the book? These and related questions are raised by Wilbur Schramm in his report on television and the Scholastic Aptitude Test scores. Lee Sauser reemphasized the importance of the copyright question and felt that additional seminars involving both educators and broadcasters are needed.

Henry Loomis expanded his earlier comments on the subject of rights. Most of the earlier discussion had centered on rights for off-the-air recording, and he did not think that was the answer. He said it was less important to guarantee CBS the exclusive use of a Bill Moyers documentary than it was to make it worth their while to sell a tape of that documentary—just as they sell books. When producers feel it is advantageous

Appendix 1

PARTICIPANTS

Mortimer Adler

*educator
Director, Institute for
Philosophical Research*

Lester Asheim

*Professor, School of
Library Science
University of North Carolina*

Erik Barnouw

author and critic

Daniel J. Boorstin

The Librarian of Congress

Ernest L. Boyer

*U.S. Commissioner of
Education*

Brian Brightley

*Coordinator, Special Projects/
Educational Activities
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Broadcasting*

Kathryn F. Broman

*President
Springfield TV, Inc.
Springfield, Massachusetts*

Cyril Busbee

*Superintendent of Education
South Carolina*

Peggy Charren

*President
Action for Children's TV*

Linda Chavez

*Director of Communications
American Federation of
Teachers*

Edwin G. Cohen

*Executive Director
Agency for Instructional TV*

Marcus Cohn

*Partner
Cohn and Marks,
Washington, D.C.*

Roy Danish

*Director
Television Information Office
of the National Association
of Broadcasters*

Robert Geller

*Director
Learning in Focus, Inc.*

Grace Hechinger

author

Howard Hitchens

*Executive Director
Association for Education
Communications and
Technology*

Paul L. Houts

*Director of Publications
and Editor
The National Elementary
Principal*

Ann Kahn

*National Secretary
National Parent Teacher
Association*

Karen Klass

*Communications Specialist
National Education
Association*

Dan Lacy

*Senior Vice President
McGraw-Hill, Inc.*

Nancy Larrick

*Adjunct Professor of
Education
Lehigh University*

Sharon Lerner
Vice President
Children's Television
Workshop

Tom Litzenburg
Special Assistant to the
Chairman
National Endowment for
the Humanities

Robert K. Logan
Department of Physics
University of Toronto

Henry Loomis
President
Corporation for Public
Broadcasting

Michael J. McAndrew
Director, Educative Services
Capital Cities Television
Productions

Margaret McNamara
Chairman of the Board
Reading is Fundamental, Inc.

Gene Mater
Vice President and Assistant
to the President
CBS/Broadcast Group

William S. Rubens
Vice President of Research
and Planning
National Broadcasting
Company

Lee Sauser
Director of Educative Services
Public Broadcasting Service

Steven H. Scheuer
Editor and Publisher
TV Key

William S. Singer
President
Prime Time School Television

Robert Sklar
Chairman, Department of
Cinema Studies
New York University

James R. Squire
Senior Vice President and
Publisher
Ginn and Company

Ralph C. Staiger
Executive Director
International Reading
Association

Edward Stanley
President
Teachers Guides to Television

Frank Stanton
Former President of CBS

Donald Thurston
Chairman of the Board
National Association of
Broadcasters

Carll Tucker
Chairman of the Board
Saturday Review

Pam Warford
Manager of Community
Relations
American Broadcasting
Company

Abbott M. Washburn
Commissioner
Federal Communications
Commission

Appendix 2

Education in the Electronic Society

by John Platt

(Editor's note: John Platt, lecturer in the Departments of Anthropology and Environmental Studies at the University of California at Santa Barbara, was unable to attend the seminar but submitted a provocative paper for distribution as background reading. "Education in the Electronic Society" is mentioned several times in the proceedings and Dr. Platt kindly has granted permission for its inclusion in this volume. It is based on his contribution to a series of seminars held in early 1978 by the National Institute of Education on new technological opportunities in education. "Education in the Electronic Society" will be published in abridged form in a late 1978 issue of the Bulletin of Atomic Scientists.)

What new directions of education will we need for a world linked together by electronic media from the cradle to the grave?

All around us the electronic society is coming into being. Television and computers have changed our daily life and work, our ways of thinking, and our political and global sensibilities. Yet the educational system, whose primary concern should be with preparing for the future, seems to be the last to recognize these changes. It is time to look with fresh eyes at these new patterns of communication and interaction to see where they are leading us and what education could do and should do in the world they are making.

The Electronic Surround

It is important to realize how far we have gone in the new direction. We are living already in what McLuhan has called the Electronic Surround. Half of the jobs in the American economy are now "tertiary" or information-handling jobs, and more and more of them have become computerized or electronic. Banks and businesses are linked together by credit cards and data processing. Government records, science, and the military are all dependent on big computers. Everywhere there are pocket calculators, transistor radios, citizens' band radios, and stereo sets with records and tapes. We have electronic monitors in stores and entryways, and videotapes for learning tennis. Telephone and television are linked by global satellites, while the home begins to have two-way cable, electronic games, and video recordings on cassettes and disks.

In our personal lives, television expands to fill the available time. Americans watch it for an average of four hours per day per person, or for more than half of their leisure time. Canadians and Japanese spend even more time on it, and of course particu-

lar groups in our society, such as housewives, children, the old, the sick, the unemployed, and people in the ghetto, watch for much longer hours. During blackouts, the looting in the ghetto is surely partly due to the fact that the television has gone off and people suddenly have nothing else to do.

Today it is estimated that most children have watched three thousand to four thousand hours of TV before they start the first grade, and thereafter they put in more hours watching it than they do in school. This pattern is now spreading rapidly around the world, because television is the cheapest way of spending time that the human race has ever devised. It costs only a few cents per person per day, including power and programming. It is often cheaper than the chair we watch it in, a hundred times cheaper than a car and a thousand times cheaper than a teacher. Even the poorest countries are beginning to take it up, because it is the fastest way of upgrading skills, literacy, health, and productivity for millions of people who have no teachers or doctors and cannot read. It has been estimated that by 1980 in many parts of Asia, Africa, and Latin American, the average eighteen-year-old will already have seen eighteen thousand hours of television, and that the 1980 Olympic Games in Moscow will be watched by 2 billion people, nearly half the human race.

This level of immersion in television has many troubling aspects, of course. Thoughtful people deplore and fear its violent programs and commercialization or its government propaganda and censorship, and its hypnotic effects, especially on children. But the electronic media are surely here to stay, and what we must do is to find out how to understand and control them and how to use their real potentialities for human development.

Certainly television enlarges our world and links us more closely together. All human beings become parts of a simultaneous emotional response network. It is said that children in the first grade now know the meaning of many more words than children knew in 1900. How could they help it, after being exposed to all that diversity and life? Even adventure shows and old Westerns expand their horizons. And from age two to eighty-two, with TV debates and news, we have all learned about space, oceans, the environment, the limits to growth, energy, nuclear dangers, the antiwar movement, Watergate and the constitutional process, the Third World and hunger, women's liberation, and so on and on for dozens of major social and political issues that were not taught in disciplinary courses or in schools and colleges at all, until the students themselves insisted that they be brought into the classrooms.

The electronic media have had cultural impacts that the earlier critics did not anticipate. Have mathematics skills decreased? Perhaps, but there are more computer users and computer programmers than we could have imagined. Has television over-emphasized professional sports? Perhaps, but jogging and swim-

ming and tennis and soccer are booming. Have reading skills decreased? Is culture lost? Perhaps, but more people have read *The Forsyte Saga* and *I, Claudius* than ever before, more have seen a Shakespeare play in a single evening than in all the previous centuries, and symphony orchestras and ballet companies are multiplying everywhere. We do well to be concerned, and there are interests of the mind that we may have to make special efforts to keep alive, but the balance of cultural excellence, diversity, and participation is not necessarily on the side of the preelectronic age.

What Future for the Schools?

Yet we are just at the beginning of this electronic era. Is it not likely that the eventual effects on personal and global consciousness will be even greater, especially when two-way cable and electronic games and cassettes and disks begin to give us more diversity and personalization? We are suddenly brought straight up against the question, What function will schools continue to have in such a world where reading, writing, and arithmetic and the older disciplines have become so oddly irrelevant and the interesting stimulation and education all seems to be outside? Will the schools become mere holding tanks for children? Quaint relics of an earlier system? Or an elite service for the well-born, as they were two centuries ago?

Surely our educational system can play a far more central role than this, if we want it to. But for it to reassume leadership in an electronic world, we must stop thinking of it as nothing but classrooms, teachers, and books. The mission of the educational system should be to teach all of our children and adults as effectively as possible and by every available method what they need to know to reach their full potential as human beings and citizens.

To do this today would require us to bring together much more successfully the schools and the media. Formal learning and teaching will have to start taking the Electronic Surround into account in a central way. It will have to realize that it is dealing with a new kind of student, needing new content, new methods, new training, and a continual reeducation outside the schoolroom for all of life. The schools and the universities will need to mobilize their resources to help adults as well as children understand this rapidly changing society, with its new technologies and new global problems, and prepare to anticipate and deal with the still newer problems of 1990 to 2040 when these children will have become the decision-making adults.

Managing any such program successfully will take far more research than we have devoted to it. It will take debate and planning and research on individual and group behavior and learning in this electronic environment. We will need our best forecasting and our best insights, and thousands of experiments

and pilot projects to try out and evaluate alternative approaches.

But with such a change of attitude and effort, six or seven areas leap to mind where formal education could begin to make itself much more effective and could take leadership in the transformation of the larger society.

The Aware Schoolroom

The first thing that existing schools can do is to be aware of the ongoing electronic world around them, to amplify and explain the issues it brings before us, and to try to correct and compensate for some of its dangers and shortcomings.

Good schools and good teachers do this already on a large scale, as they did in the days of radio and newspapers. A television program such as "Roots," which ran for six nights in a row and reached eighty million U.S. viewers, has provided stimulus and material for analysis in geography, history, and social science, as well as poetry and literature. An exciting curriculum in the social sciences could be built around major TV programs, with added library materials and community discussions. With a little more effort, the same could be done for programs involving engineering and the biological sciences, and for music and art and literature, although the coverage here might be rather spotty and unsystematic.

The schools might make better use of such nationwide programs when they are first presented, if they could mobilize national experts, on a few days' notice, to provide background and enrichment materials. This could be a fairly inexpensive way of increasing the excitement of the schoolroom and its sense of relevance to the world, for schools all over the country. In many cases, the cost might even be supported by the sponsors of the program, as part of their institutional advertising, although adequate controls to ensure the impartiality and academic quality of such background materials would be essential.

But it is important not to deal with first-graders as though they had not seen "Sesame Street," or with high-schoolers as though they had not seen space flights.

The Electronic Schoolroom

The use of the new electronic devices in the schoolroom itself has been widely discussed and does not need to be elaborated here, where we are concerned with the broader educational mission. Many groups are now developing the use of classroom television, including central broadcasting of programs, videotapes for learning new skills, cassettes and disks for whole libraries of lectures and background films and other materials, two-way television for interactive discussions and questions, responsive games and computerized learning systems like the PLATO system at the University of Illinois, language tapes, and personalized learning programs with instant reinforcement for individual

students progressing at their own rate. No doubt these will all be fitted into the classroom of the future in one way or another. The role of the human teacher may come to be that of more personalized help and clarification, of setting things into a larger context and a larger philosophy. The teaching task itself may also be simplified and helped by the use of similar electronic preparation and materials and by video examples of effective classroom methods, if such materials can be prepared on a national scale.

A Curriculum for the New World

What has not yet been done is the development of a whole curriculum appropriate to this new world, to teach young citizens how to participate in its life and work and play. What old subjects can or should be dropped? What new subjects or approaches should be especially emphasized?

These are questions for intense debate, and the debates will probably be politicized, with very different attitudes and answers between conservatives and liberals or between groups with different opinions on ecology or economics or technology or social and political change. And the choices that are made will probably change continually as knowledge and civic needs change in every decade. We can see this simply by comparing our educational emphases in 1978 with those in 1968. At that time our eyes were fixed on space, civil rights, the Vietnam war, and student protests, and there was still little interest in those new subjects of ecology and pollution, energy, the limits to growth, the problems of cities, school reform, busing, sexual freedom, birth control, abortions, women's liberation and affirmative action, and religious reform. In the last ten years, all these have become subjects of intense debate, concern, and violence. The controversies over them have changed the relation of schools to students and to the community and the law, and they have changed the internal curriculum, from universities down to grade schools, not only in the United States but around the world. After such a decade, we should at least try to think about what 1988 will call for that will be different still.

What shall we do about the more traditional subjects?

In a world of electric typewriters, how much handwriting does a child need to learn? How much does the average adult still use?

With the best television teaching, how much of our emphasis on reading comprehension will become clumsy and obsolete, blocking skills and knowledge that could be learned easily by visual demonstration? If new audiovisual methods are more effective for industrial or managerial training, would they not also be more effective for students in school?

With seven-place pocket calculators costing less than five dollars, and with computers at every checkout counter, how much rote multiplication, long division, complex fractions, or loga-

rithms are desirable, of the kind that have frightened most children and adults away from mathematics? How much complex mathematics does the average adult need or use today?

At a higher level, if most jobs will involve the handling of information, what vocational skills should we teach? Should it be shorthand, or word processing? Double-entry bookkeeping, or computer programming? Shop skills, or video reporting? In research and professional training, should students learn particular skills, or learn to learn, so that later they can master updated video instructions as the disciplines change over the years? Should we use language texts, or tapes? Geometry and engineering drawings, or electronic geometry games and the construction of Fuller domes? History and art and music lectures, or a great systematic series of videocassettes and videodisks?

If we can drop and compress some of the older materials and make room for them, there are several important new disciplines of the last few years that could and should be introduced at high school level. These include the new biological integration, the new psychology, and the computer simulations of global systems and changes, all of which can help students understand themselves and this new world much better. New fields that can be made vivid and exciting at the junior high school level include the sociobiology of the social animals, the new geology, with its great continental plates sliding under each other, and the new astronomy, with space explorations and strange radio stars.

Probably we should also begin to make room for some of the integrative ideas that C. H. Waddington has listed in his last book, *Tools of Thought*, such as feedback, information theory, and how to handle information overload; chain reactions with growth and decay, as applied to nuclear reactions, biological growth, business cycles, or human history; and ecological interactions and systems analysis. These are the major systems tools for an interactive computer age, and they can be taught conceptually and practically with only the simplest mathematics. Teachers themselves also need to know these subjects, both for personal understanding and management and professional application.

New Modes of Awareness

The schools will have to incorporate new ways of looking at things and doing things. McLuhan more than anyone else has emphasized the change in our mental processes that must come as we shift from print to television. It is happening already. Our imaging and learning and our linking to each other cannot help but be transformed as our mental inputs change. Verbal argument and books, with their linear and sequential information, speak to the "left brain," while motion pictures and television, with their high-information holistic moving-field patterns in space, develop the powers of the "right brain." Print is private,

interiorized, and analytical; video is public, externalized, and impressionistic. The new media take us back toward the primary human modes of communicating emotion and information through dance, ritual, and drama. Learning comes to be again by imitation and apprenticeship, whether it is practicing yoga or Japanese brush painting or cooking with Julia.

The change to a generation of students for whom this has been the dominant mode of relationship and learning since infancy cannot help but force changes in schools, classrooms, teachers, materials, and methods, although it is not clear what these changes will eventually be. Probably some educators will try to make the school experience as much like the TV as possible, to capitalize on the transfer of learning modes. Others may try to make it as different as possible, to try to preserve the bookish and analytical skills. Or possibly some new and better ways will be invented that can combine these values. The emotional involvement of the television image might be used with something like split-screen methods to sharpen up alternatives and to make complex relations clearer or conclusions more convincing. This is evidently a most important area for research contracts and pilot studies with careful evaluations.

The future of books and of libraries of books in this new electronic world is a subject fraught with emotion. We have loved books for two thousand years, and rightly so, for their enormous transformation of human understanding and the human condition. They have brought us culture and cultural change and diversity. We have treasured their privacy, for private entertainment or private dissent from the official dogma or private sharing with a special friend. We have come to equate intellect with letters.

Yet we bookish people have almost forgotten that the humanities, including poetry, history, and drama, and the philosophy and religion of Socrates and Jesus, with their dialogues and parables, were originally oral and representational and did not need written symbols for their thought. It is mathematics and the sciences that would have been greatly retarded without symbolic lines and letters.

Undoubtedly books will never die out, neither the sciences nor the humanities, and libraries will continue growing in size and complexity. But probably in an electronic era, books and written records will be relegated increasingly to reference functions carried on by specialists. The oral and visual communication of human ideas, like the active records and work of the world, in enormously increased volume, will not be left in libraries but will be carried everywhere on tape and disk for the computer and the screen, with instant access from every home or office.

This effective "end of the era of books" may still be a generation away for us in the industrial societies. But for a billion and a half people in the Third World, the transition may come in the

next few years, straight from a village oral tradition to a television oral-and-demonstration tradition, without ever passing through the era of books and literacy. In fact, the necessity of writing software programs to teach *everything* by television to nonliterate, either in the developing countries or in our own, cannot help but speed up the transition away from books for the rest of us. Early educational programs will come to teach skills, complex relations, and social values far more important to society than the alphabet.

As it makes these changes in our perceptions and modes of interaction, television will bring us for the first time a wholly nonpunitive education. It is a change that the schools will surely have to incorporate. The TV screen has no truant officer, no school compulsion, no rap on the knuckles or being kept after school or bad grades or parental scolding, to force its viewers to stay in their seats and to pay attention. It has only its own interest and build-up, second by second, to hold them—that is, in Skinnerian terms, its instant positive reinforcement for continuing to watch.

As Skinner has shown, no punitive method can compete with such an attractive system, for creating interest, modifying behavior and attitudes, and learning. The schools will not be able to compete with the power of television until they begin to create their own continuously attractive programs, live or video, building in the same instant-by-instant fascination so that they do not need to depend at all on the remnants of compulsion that are still in use today. This may be one of the most difficult emotional points for schools of education and for traditional teachers to understand and believe in and learn to practice, but it is a necessary key to education in the Electronic Surround.

Finally, the sense of human relationship and global relationship is something that the electronic world has given us on a scale we never had before. This may seem a strange observation when we think how disembodied the voices are that we hear on the radio, or how detached and artificial the images and people on the screen often seem. But they represent a world larger and older than the family or the village night, stretching to Washington or to the moon, or years into the vanished past. And with habit, they become more real and more important than the family, as the current war or oil spill comes nightly to our dinner table. We all follow Claudius together or stand with hope beside Sadat in Jerusalem. We become both more global and more individualized, as we link up with other groups with the same backgrounds and interests, whether they are other nuclear protesters or tennis buffs or ethnic groups or liberated women or evangelical believers.

This outreach makes most textbooks and teaching materials today seem limited and stereotyped. And all of these enticements to identify with a wider but more personally interesting world

will increase with the new developments such as more diverse programming, two-way cable television, special-interest electronic games, and individualized videocassettes or disks with libraries of programs. A precursor of this kind is the "Thinker's Tournament" program of mathematical games between schools in Ann Arbor and other Michigan cities, which uses cable television and conference telephone. Teachers might find such links extremely valuable professionally, especially in dealing with new program material used in many schools at once.

Using the Electronic Surround

Does it not seem likely that the more progressive schools will then move on to the central and systematic use of the electronic media as a high-quality core and universal resource for all their work? With leadership, they will begin to work in advance with broadcasters and public and educational networks to build courses around such serials as "Sesame Street" and "The Electric Company" for younger children, and "Civilization," "The Ascent of Man," and "Roots" for older ones. They will solve the copyright and cost problems so that they can build libraries of videocassettes and disks, available like books for study or review by anyone at any time. Athletic teams, musicians, actors, and debaters will correct their errors and improve performance rapidly by watching their own videotapes with instant replay and slow motion. Teachers could profitably do the same to improve their own classroom performance. A major part of the curricula in the teachers' colleges may be devoted to learning how to use all these media effectively. These possibilities have been talked about, and both exaggerated and belittled, for many years, but most educators have not realized how rapidly and universally they will come, as electronic hardware becomes cheaper than seats and books.

Creating New Electronic Education for Schools and the Public

As all this begins to happen, these new media will begin to be taken over and developed for education in a comprehensive way, as an intellectual and experiential feast, rather than as crumbs from the table of the broadcasters. The planning and initial steps toward this development cannot begin too soon, for the time and the need, and perhaps the money, are already here.

A reminder about economics may be helpful. Because programs can be reused indefinitely, the software costs of electronic education will go down even more dramatically in the long run than their hardware costs. This is true even with elaborate planning and highly selected video teachers and the best media technology. When we consider the 30 million children who have learned the alphabet and numbers from "Sesame Street" in the last ten years, the \$8 million cost of creating the initial series

works out to about three cents per child per hour—the cheapest method of early education ever devised.

Education is now a \$100 billion operation. It is the largest industry in the U.S., and now the largest industry in the world, surpassing even military expenditures after 1974, according to United Nations statistics. If we had the leadership to use even part of 1 percent of this budget to get a consortium of schools and colleges and government agencies and foundations to begin producing the electronic educational feast, it would generate a national and world transformation.

In short, the educational system could begin to be its own producer and programmer. It will have to create entertainment, of course, effectively and self-sustainingly, but its basic goals will be learning, remembering and using, and for these purposes it will have to find its own new mixes of media, its own content and standards and pace, and its own full curricula for all ages of students.

The best of public television has begun to do this now. Increasingly, these enjoyable learning programs will burst out of the nine-to-four school day and over school walls into homes and conference centers and by satellite around the world.

As it reaches a larger public, this move away from the era of books will change social institutions as well as modes of awareness. We do not often consider what rather special human patterns the invention of writing has created over several thousand years. Putting marks on paper to represent speech led to the alphabet and then to books and printing and libraries. It was unnatural and hard to learn, so it led to years of formal schooling, first for an elite class of scribes and then for all children in a democracy. It required specially trained teachers to read from books or to dictate for copying, often with canings and tears. The result now is the whole apparatus of school buildings and classes and exams, and busing and lunch programs, and truant officers and schools of education—and a total change in the meaning of childhood and the natural ways of learning from adults by doing.

But if we begin to introduce electronic images effectively in place of books, much of this clumsy machinery of learning can be gotten rid of as being inefficient, coercive, and dull. It does not show us how to do anything well—to build cars or run a bank or speak a language, or even read books. Its helps to create bored and hostile teenagers who know nothing of the work of the world and who actively hate mathematics and physics and English and poetry and music. How can we go on supporting these economic and social costs, if better ways are available?

Massive electronic education will have its problems, too, as we are constantly reminded, but at least they are different problems as the walls of the classroom disappear. And this non-coercive medium that can teach anyone who watches, old or

young, by fascination alone, also has enormous strengths and creative potential. It is a power for individual and social change that we can capture and master if we act now. Homework can become home play. Self-teaching and skills, and a common base of knowledge and concern and a common ground of dialogue might be brought back. The electronic living notebooks might facilitate all our activities and might become the daily reality of continuing education.

The Never-Ending Education of the Whole Society

Our new technological powers and our new intensities of communication and interaction around the world have moved us toward a self-transforming society. We are becoming, both nationally and globally, a cybernetic society that chooses its own goals deliberately. Nowadays we are rejecting in advance this or that technology or structure and demanding research and development of other methods that will take us closer to where we want to go. This is the meaning of the protest movements and the World Bank; of the blocking of the supersonic transport and the new research on solar energy; of the demand for public accountability and the human rights movement.

At the heart of such a society must be a continual ongoing education in new ways and a continual informed debate over new goals. Only the electronic media can reach throughout such a society fast enough and completely enough—changing all ages together—to make this kind of self-transformation possible. But the media presentations in this mutual education must be based on the best library materials and the best experts and teachers and the best teaching methods, if we are to avoid sensationalism or commercialism.

What this means is that such a continual reeducation of ourselves as a public must be integrated into, and must be a major part of, the whole educational enterprise. Already the universities have a majority of their enrollments outside the traditional eighteen to twenty-two year age bracket, and in Britain, the Open University with television classes is a major scholastic enterprise. This may be the beginning of the turnaround, as we come to see the primary educational mission as the never-ending education of the whole society, and as schools become radio and television centers and conference and adult education centers for everybody. The special education of the young is only a fraction of this mission, and the continuation of traditional teaching with books and schoolrooms will be a smaller fraction still.

Such a transformation toward truly holistic education using all of our networks will take years of leadership and dedicated effort. But is not this the natural direction of the whole electronic world with its immediacy, its universality, its emotional involvement, and its differentiated special interests? It may be that the greatest educators of the future will come to be the

greatest producers, directors, and teachers reaching out to everyone through the media and educating the world—and the young along with everybody else.

Appendix 3

Guide to Further Information

Compiled by Jean Johnson,
*Resource Director, Action
for Children's Television*

I. TELEVISION AND EDUCATION

PUBLICATIONS

American Educator. American Federation of Teachers, AFL-CIO, 11 Dupont Circle NW, Washington, D.C., (202) 797-4400. A regular television supplement that includes guides to upcoming programming and ideas on ways to use television with children. Quarterly; \$2.50 per year.

Artel, Linda. "Films about Television." *Sightlines*, Winter 1977/78, pp. 17-22. A selected list of films dealing with television history, production, economics, and its social impact.

Boyle, Deirdre. "The Library, Television, and the Unconscious Mind." *Wilson Library Bulletin*, May 1978, pp. 696-702. An interesting discussion of librarians' attitudes toward television and other visual media.

Byars, Betsy. *The TV Kid*. New York: Viking Press, 1976. 123 pages. \$6.50. A short novel for children (eight through thirteen) that can encourage discussion of television and its not-so-subtle messages. Illustrated by Richard Cuffari.

Center for Understanding Media. *Doing the Media: A Portfolio of Activities and Resources*. New York, 1972. 219 pp. \$5. A special section includes a discussion of ways in which using video equipment can help students become more critical viewers.

"Children and Television—Concerns of the School Media Specialist." *School Media Quarterly* 5, no. 3 (Spring 1977). A special issue devoted to the topic.

Dalziel, Bonnie. "Exit Dick and Jane?" *American Education*, July 1976, pp. 9-13. A discussion of how commercial television programs such as "Eleanor and Franklin" can be used to improve reading skills.

"The Ecology of Education: Television." *The National Elementary Principal* 56, no. 3 (January/February 1977). 104 pp. \$4.00 A special issue on television and learning. Television's effect on children is examined in more than a dozen essays by noted authorities. Available from the National Association of Elementary School Principals, 1801 N. Moore St., Arlington, Virginia 22209.

Heintz, Ann Christine. *Persuasion*. Chicago: Loyola University Press, 1974. 224 pp. \$3.20. A secondary level text on the strategies of advertising. The volume contains several ideas that can be adapted for use with young students.

Heintz, Ann Christine. "Using What Kids Watch on TV." *Media and Methods*, March 1976, pp. 42ff. An article that suggests ways to use popular television series in the classroom.

Heintz, Ann Christine, Laurence M. Reuter, and Elizabeth Conley. *Mass Media: A Worktext in the Processes of Modern Communication*. Chicago; Loyola University Press, 1975. 240 pp. \$3.50. A secondary level text on mass communications that can be adapted for younger students.

Kuhns, William. *Exploring Television*. Chicago; Loyola University Press, 1975. 240 pp. \$3.50. A secondary level text that stresses the development of critical viewing skills.

Laybourne, Kit. "A Television Atlas." *Sightlines*, Winter 1977/78, pp. 8-10. A suggested course of study that examines television as a political, social, and economic force.

Littell, Joseph F., ed. *Coping with Television*. Evanston, Ill.: McDougal Littell, 1973. 213 pp. \$3.87. A secondary level text with readings on commercial programming and news coverage, public television, and audience response. Some sections of the text may be adapted for the intermediate grades.

Markham, Lois B. "How to Make Commercial TV Work for You." *Scholastic Teacher*, November-December 1974, pp. 8-13. An article containing suggestions for using popular television series such as "Little House on the Prairie."

Media Mix. Claretian Publications, 221 W. Madison St., Chicago, Ill. 60606. A monthly newsletter that regularly features information for educators about incorporating TV into the school curriculum.

O'Brien, Clare Lynch. "Using Commercial TV in the Classroom." *Teacher*, September 1976, pp. 45-52. An article containing ideas for discussing news programming, situation comedies, fantasy series, and sports programs with elementary school students.

O'Bryant, Shirley L., and Charles R. Corder-Bolz. "Children and Television," *Children Today*, May/June 1978, pp. 21-24. A discussion of practical ways parents and teachers can mediate children's television viewing.

Potter, Rosemary Lee. *New Season: The Positive Use of Commercial Television with Children*. Columbus, Ohio: Charles E. Merrill, 1976. 126 pp. \$3.95. A book featuring lesson plans based on commercial television for use with elementary school children.

Prime Time School Television. *Television, Police, and the Law*. Niles, Ill.: Argus Communications, 1977. \$4.50. A curriculum unit using popular television police shows to encourage discussion about law enforcement and civil rights.

Schrank, Jeffrey. *TV Action Book*. Evanston, Ill.: McDouglas Littell, 1976. 127 pp. \$2.35. A secondary level text that emphasizes consumer rights in broadcasting. It is part of *Television and Values*, a multimedia kit that includes a filmstrip, a cassette,

project cards, and a teaching guide. The kit is available from the Learning Seed Company, 145 Brentwood Dr., Palatine, Ill. 60067. \$38.60.

Seward, Stephen. "Books as Television Best Sellers, or Give That TV Addict a Book!" *Wilson Library Bulletin*, November 1977, pp. 232-36. A discussion of the use of novels and non-fiction best-sellers for television plots and the implications of this particular trend.

Skinner, Stanley. *The Advertisement Book*. Evanston, Ill.: McDougal Littell, 1976. 153 pp. \$2.88. A secondary level text on advertising messages. The text contains some lesson ideas that may also be appropriate for junior high students; many sections can be adapted for younger students.

Sohn, David. *The Problem and the Promise: A Television/Video Workshop*. Santa Monica, Calif.: Pyramid Films, 1978. 31 pp. A film-based curriculum unit which examines television advertising, programming, and news coverage. It includes a bibliography.

Teacher. *Macmillan Professional Magazines*, 1 Fawcett Place, Greenwich, Conn. 06830. The magazine's regular column, "TV Talk," includes ideas for elementary school teachers. Monthly; \$12 per year.

Teachers Guides to Television. 699 Madison Avenue, New York, N.Y. 10021. A teacher's guide to upcoming television specials and other programs of interest, published twice during the school year. \$4 per year.

Television Awareness Training. New York, N.Y.: Media Action Research Center, 1977. 304 pp. \$8.00. A workbook and text developed by the United Methodist Church, American Lutheran Church, Church of the Brethren, and Media Action Research Center. It includes collected TV essays from a wide variety of sources and provides an informative stimulus for high school/adult discussions about the medium.

FILMS

Seeing Through Commercials: A Children's Guide to TV Advertising. A fifteen-minute, 16mm color film with sound that demystifies television commercials by illustrating and discussing advertising techniques. It is appropriate for grades three through eight. The film is available from Vision Films, P. O. Box 48896, Los Angeles, Calif. 90048. Rental, \$25; purchase, \$225.

Six Billion \$\$\$ Sell: A Child's Guide to TV Commercials. A fifteen-minute, 16mm color film with sound that uses clips from television commercials, animation, and an original pop theme song to teach children about the techniques used by advertisers. It is appropriate for grades three through eight. The film is available from Consumer Reports Films, Box XA-35, 256 Washington Street, Mount Vernon, N. Y. 10550. Rental, \$25; purchase, \$220.

Supergoop. A thirteen-minute, 16mm color film with sound that

tells an animated story about a marketing and advertising campaign for a new sugared cereal, "Supergoop." The film is appropriate for grades three through six. It is available from Churchill Films, 662 N. Robertson Blvd., Los Angeles, Calif. 90069. Rental, \$18, purchase, \$190.

ORGANIZATIONS

Action for Children's Television, 46 Austin Street, Newtonville, Mass. 02160, (617) 527-7870. ACT is a national consumer organization working for quality television without commercialism for children. It sponsors research on children's television, publishes materials relating to children and television, and maintains a specialized research library. Membership in ACT costs \$15 annually and includes a subscription to *re:act*, ACT's quarterly news magazine.

Children's Television Workshop, 1 Lincoln Plaza, New York, N.Y. 10023, (212) 595-3456. CTW's Community Education Services Division develops supplemental teaching tools for use with "Sesame Street," "Electric Company," and other CTW productions. Currently available are **SESAME STREET Script Highlights** (\$5) and **SESAME STREET Activities Manual** (\$1).

National Parent-Teacher Association, 700 Rush Street, Chicago, Ill. 60611. (312) 787-0977. The National PTA's TV Project is coordinating efforts to reduce violence in television programming. Other TV-related activities are also under way.

Prime Time School Television, Suite 810, 120 S. LaSalle St., Chicago, Ill. 60603, (312) 368-1088. PTST publishes monthly bulletins supplying information for teachers about prime time programs and their uses as educational resources. **The Creative Handbook**, published quarterly, features ideas for parents and teachers. PTST plans future curriculum units on TV economics, parenting, and values.

Teachers Guides to Television, 699 Madison Avenue, New York, N.Y. 10021, (212) 249-2249. This organization publishes TV-related educational materials. With NBC-TV, it coordinates "Parent Participation TV Workshops" across the country.

Television Information Office, 745 Fifth Avenue, New York, N.Y. 10022. (212) 759-6800. The TIO is an information service sponsored by the television networks, local stations, and the National Association of Broadcasters. It maintains a library and publishes a variety of materials relating to television. Local public television stations can often provide information about supplementary materials for PBS series such as "Vegetable Soup," "Infinity Factory," "Carrascalendas," and "As•We•See•It." Cooperating stations and names of coordinators can be found in the **Educative Services Directory**, available from Public Broadcasting Service, 475 L'Enfant Plaza West, SW, Washington, D.C. 20024, (202) 488-5000.

II. TELEVISION'S EFFECT ON CHILDREN

PUBLICATIONS

Kaye, Evelyn. **Family Guide to Children's Television: What to Watch, What to Miss, What to Change and How to Do It.** New York: Pantheon Books, 1974. 194 pp. \$2.95. Also available from Action for Children's Television. Discusses major issues in children's television and proposes strategies for change; a "Children's Workbook" section is included.

Larrick, Nancy. "Children of Television." **A Parent's Guide to Children's Reading.** 4th ed. New York: Bantam Books, 1975. A discussion of television's effect on children, with suggestions for parents on how to handle problems related to television watching.

Leifer, Aimee Dorr, Neal J. Gordon, and Sherryl Browne Graves. "Children's Television: More than Mere Entertainment." **Harvard Educational Review** 44 (1974): 213-45. A review of the literature concerned with "social messages" on television.

Liebert, Robert M., John M. Neale, and Emily S. Davidson. **The Early Window: Effects of TV on Children and Youth.** New York: Pergamon Press, 1973. 133 pp. \$6.50. An informative survey of research on television and children and an analysis of the research relating to television violence and children.

Mukerji, Rose. "TV's Impact on Children: A Checkerboard Scene." **Phi Delta Kappan**, January 1976, pp. 316-21. A review of the research on television's effect on the early childhood years.

Schramm, Wilbur. **Television and the Test Scores.** Princeton, N.J.: College Board Publications, 1977. 18 pp. \$2.00. A report on television's effect on reading, prepared for the Advisory Panel on the Scholastic Aptitude Test Score Decline.

FILMS

But First This Message. A fifteen-minute, 16mm color film with sound that includes film clips from children's television programs and commercials and statements from children, physicians, a toy manufacturer, a professor of communications, and a professor of child development. The film is appropriate for high school and adult audiences. It is available from Action for Children's Television, 46 Austin St., Newtonville, Mass. 02160. Rental, \$25; purchase, \$185.

It's as Easy as Selling Candy to a Baby. An eleven-minute 16mm color film with sound that includes film clips of television food ads directed to children and a discussion of the influence of advertising on American eating habits. This film is appropriate for high school and adult audiences. It is available from Action for Children's Television, 46 Austin Street, Newtonville, Mass. 02160. Rental, \$25; purchase, \$185.

TV: The Anonymous Teacher. A fifteen-minute, 16mm color

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film with sound that examines advertising, violence, and sexual and racial stereotyping on television. It includes commentary by noted researchers in the field of children's television. The film is appropriate for high school and adult audiences. It is distributed by Mass Media Ministries, 2116 N. Charles St., Baltimore, Md. 21218. Rental, \$20; purchase, \$225.

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