A media program should be developed and integrated into the curriculum at the same rate as print material. Because media are a useful educational aid and should be an extension of the curriculum, the instructional specialist of the future will be a media specialist who can coordinate curriculum and media and also design instructional methods tailored to the student. If the school media center is to fulfill its future goal, all forms of media should effectively merge with the curriculum and the instructional system for the benefit of the learner. Future learning centers should be designed for the retrieval of materials rather than storage, and for the convenience of the patron rather than the staff. Provision for student self expression in production of media materials will be a facet of the future media center. (DS)
1984 IS ONLY NINE YEARS AWAY

Will School Media Programs Humanize or Dehumanize Schooling?

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I've been giving a number of talks about the future of educational technology, and found it rather easy to dazzle people with the developing technologies which ought to make education a much more effective environment for learning. This afternoon, however, I am trying to address a number of questions which are not easy -- they are very abstract and trouble anyone who has reflected seriously on them.

We have had science-fiction writers, novelists, and seers project various kinds of futures. We have been given critical dates, Mr. Orwell's being only nine years from now. We are faced with the very real question of whether the technology which has been evolved by human beings to meet human needs serves to liberate and humanize use or serves to enslave us.

In fact, it seems all too easy to allow technological development to enslave us. Donald Ely spoke earlier in this conference about the ideas that make up a study of futures, and identified a number of ways to study the future. One of the methods can be categorized as extrapolating on one trend line or putting several indexes together. Those estimates usually have been underestimates of the way a social system is going. The proactive method for looking at the future not only provides analysis and projections about the future but challenges the futurist to invent the desired future.

If one wants to be proactive, it is very important that he think systematically about the totality of the future into which he would like to move. He can't simply go down a single narrow road, ignoring the society as a whole or the social institutions with which he must deal. He, in fact, needs to think about the total social system, the total environment. This kind of future strategy could be labeled utopianism. One thinks through the kind of a life he would really like to lead and
the kind of a social system which would enable that life. He designs a future that he could really live with, and then works toward it. The premise of my remarks this afternoon is, if one works toward a future he selects, he has a better chance of achieving that particular future. Of course, one person working alone doesn't have an extraordinarily great chance, to achieve his ideal future, but presumably everyone working together in some organized effort might well make a substantial impact on a more effective potential future.

In order to look at one possible set of utopias, or dystopias if you hold a different point of view, I am going to use the imagery of a road. Roads do not always convey positive images. We have a number of concerns at present over roads destroying the landscape and natural resources. The roads that I want to talk about are more positively oriented.

Robert Frost knew the significance of selecting a road. He took the road less traveled because he felt it needed some use. Yet that choice made a fundamental difference in the experiences which lay ahead. We are finding two roads trying to converge and we are going to decide whether or how to handle the merging traffic.

We talk a lot about an integrated media program, and I would suggest that what we really have done perhaps is come to a possible crossroads in the way in which print programs and non-print programs have come to function. As a matter of fact, it would be easily possible for these two programs within education to cross as if at an interchange, with no connecting ramps at all, and diverge again. It would be like two great ships, passing in the middle of the ocean in the night, neither aware of the other. Just because print and nonprint programs are
drawing closer together does not mean that, in fact, we will integrate those programs.

These programs might not even come close enough together to even touch. We might continue to have a main road and perhaps parallel to it the back road – one strong program, one weak program, seldom in contact, seldom using common resources and common possibilities, seldom having any form of integration at all. The main road will probably emphasize print.

Another kind of possibility is that one program dead ends into another. No one really tries to integrate the programs. They say, we no longer have an audiovisual program, we have an integrated media program. Very often in this kind of connecting, one takes the same people, changes their names, and figures he has solved the problem. In fact what typically happens is that one or the other programs prevails, and the services of the other are severely diminished. The single remaining program has to carry the traffic and the burden of the other program, but seldom carries it very well.

Another possibility is merger by fiat, executive order, or law. Programs are joined abruptly, without much consideration of the qualities of each. Again, the combined program is seldom any more extensive than either one of the original programs. Services are seldom thought through with any other criterion in mind except to perpetuate what little is possible with very little resources.

A last alternative might be a true merger. When freeways first came into existence and entrance ramps were prepared for such roads, drivers who were inexperienced in executing those kinds of ramps would drive to the bottom of the ramp and stop and look about and panic as traffic whizzed by on the main road. Most drivers have learned since
that in order to merge together on a freeway, one has to enter that freeway at about the speed of the traffic traveling on the main road. This would suggest that if there is going to be a merger, two really strong programs going along about the same speed can rather gently intermesh.*

The blending and careful merging of print and nonprint programs in our schools is the most promising alternative of those mentioned. And yet, how seldom has this actually occurred in practice? I think, typically, almost any one of the other alternatives has been the more common. I'll try to explain later why I think this is important, but I think it's important for you to reflect on just exactly what you mean by an integrated media program.

The second territory of concern is that the social system today contains an explosive force in terms of the knowledge and technological capabilities available. Human effort in research and development has produced a cornucopia of ideas and things to serve people. Yet educators seldom seem to know how to take this knowledge, these techniques, these machine capabilities and use them to serve learners in school. Rather, educators typically use them to enslave. How many times have they put in an automated data processing system only to find that reports take twice as long to get out, or changes are ten times as hard to execute. The machine is supposed to save time and energy and in fact it requires an increased investment.

Learners are often restricted to dealing with traditional bodies of knowledge as if there was a certain set body of knowledge which will be

*I like the merger signs in Canada and other countries that say "squeeze". I think it expresses a bit of friendliness which very seldom goes on as we try to merge media programs together.
useful to mankind for all time, when in fact the present knowledge base is so large and the accumulation of knowledge is so immense and so quick, that there are a number of alternative possibilities of "that which is most useful to know." The most important consideration in helping technology serve the learner is to remember that media simply are extensions of people. They help with: efficient communication and storage of ideas, and the capability to sense phenomena that are far removed in time and space, or too small or too large to sense. They provide the best means we've ever had to store our human heritage. So why make such a big fuss about print versus nonprint? Can't the techniques evolved over years and years in print and the more recent techniques that make some sense in terms of the nonprint serve all media? Can't all media be perceived as useful extensions of people?

What's even more important is to go the last step and integrate all this into curriculum. It's so easy for a media program to just run parallel to a curriculum system, just as it was easy for a print and nonprint program to run parallel. The most common way in which the curriculum and the media system interact are with some little side road trips, teachers come over and ask a media specialist a question or visit a media center to see things which might be there that might be useful. Students come in, if they're assigned a special period, or because they have some special interests, but there is seldom a systematic linking of the media system and the curriculum system. Again, some form of merger would probably be far more effective in which there was a true blend of the media and the curriculum, support which would improve instruction and individualize instruction within the curricular environment of the school.
I take a rather radical position in regard to curriculum. I say that a curriculum really ought to be an extending, an opening, an enlarging of the understanding of the curricular opportunities available to learners. Curriculum people so often narrow and reject and delimit when they determine a curriculum. They are determining the curriculum, the set of very carefully restricted experiences for the learner. But, in fact if we took curriculum to be an opening up and a careful analysis of the opportunities in the community context, with teachers, using the facilities, media and materials, and focused on the learner as an individual, in this day and age that ought to be a vast range of opportunities. The media specialist is probably the person who is best equipped to give the rest of the school people a vision of this incredible opportunity.

Instruction, on the other hand, is the facilitation of learning. The linking together of the curriculum potential and the particular learner at a particular time. Again, the media specialist has the tools and the opportunities to provide a much stronger and significant link between those opportunities and the particular needs of a particular learner. He knows what kinds of materials there are -- or should know. He knows how to get them and use them well, or should know. He knows something about human interaction so that he can see whether the kind of people that are involved with the things are involved in an effective instructional activity.

The media center becomes more of a concept than a place. Surely there will have to have a place, but there's no reason in this present age that media center activities have to go on within a particular closely defined space that we've traditionally called the media center.
It should be organized for retrieval, rather than for storage. It should be very concerned with production, production, not only for formal teaching materials, but also to give the learner an opportunity to express himself in contemporary media possibilities. It ought to serve all the learners in the school situation. I presume teachers, administrators, et al. are still learners -- at least I would hope that they would be a part of the learning system within the school. The services should be designed for the convenience of the patron, not for the convenience of the staff within the center. This one is difficult, isn't it? All learners should have free and easy access to materials in the center. All learners should have a feeling that there are things there to stimulate them, challenge them, move them ahead in terms of the things that they need in order to get "a handle on the world".

The media center needs to provide production and consumption in many different sensory modes, not only reading and writing. In fact, one could make the case nowadays that maybe all a person needs as an adult to function in contemporary adult society is a vocabulary of about two hundred words and a few simple rules. That doesn't meet any of our standards for being able to read, and yet, and the schools continue to act as if reading and writing are the sine qua non of education. People ought to be able to record and to listen carefully, they ought to be able to draw or photograph well and to view things carefully. Learners must be able to look at things so that they really see, or to listen to things so that they really hear.

The media specialist is charged with an incredible kind of responsibility. He has to know how to deal with all the various kinds of media that are available to us in this present day and age. He has to be able to "turn on" a learner so that the learner is ready to move out
as an enquirer, an investigator, as a seeker after knowledge—one who knows how to learn. The media specialist really becomes the curriculum and instruction specialist of the future. He needs to analyze, build, tell people about, and manage these curricular opportunities. It's an incredibly important role, it's a role that is almost never filled in the present-day school, partly because the people who have been called Curriculum Specialists know how to ask the right questions about curricular problems, but they don't have the wherewithall to supply any of the answers. The people who have been charged with improving instruction: supervisors, or instructional coordinators, very often have logistical skills or evaluative skills, but almost never have the wherewithall to deliver a curricular opportunity within a setting that really facilitates human learning. For most, it becomes a tremendous challenge to switch over from the traditional roles.

To sum up, I hope you'll agree that media extend people, that media can put people in touch with wide experience, experience geographically removed from them in time, communication style, language— it crosses a number of potential barriers. Media should in fact liberate people, then, to widespread sharing of human experience in the richest possible forms. As our knowledge base and our technological opportunities explode, as we move rapidly than most of us would like, to a whole new possible environment for learning, whole new ways of accomplishing social activity,

***The technology should support this change. We've had a very interesting development at Ohio State which is going to be operational this summer, in which we've lashed together three major systems, one from Ohio State, one from the Ohio College Library Center, and one from Battelle Memorial Laboratories; which will provide for search, circulation, acquisition, and inventory control at a very low cost. Total capital investment for the system is the computer terminal. It has been developed for the handicapped, and it will be operated initially for serving handicapped learners, but anyone who happens to have an Ohio College Library Center terminal will immediately have all these new capabilities. The clerical chores which print-oriented media specialists have had to contend with for years will be done by the machines. This will also link together a much bigger collection of materials than ever was present at any one school.
I hope that we can manage to connect media programs up: that we can have the merger of all the forms of media into a truly integrated program.

I hope that the media program can mesh effectively with the curriculum and instruction systems in the schools. I think that is a future worth working for. That is a future which could truly liberate the learner to be a human being, free from the constraints that the early industrial society has placed upon him, free from the limitations of any one medium, free of the potential tyranny of a particular teacher, or the tyranny of a particular set of social phenomena in a community. We could, if we wanted to really link things together, produce schools in which learners could be citizens of the world, to be rich participants in all the things that are important to all human beings. I hope that we media specialists will rise to that challenge.