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ABSTRACT

Edited versions of the conference presentations are compiled. The purpose of the meeting was to bring together media specialists and other educators from throughout Pennsylvania to evaluate the basic assumptions underlying the educational use of cable television (CATV) and to share ideas about the ways in which cable could be used to change the educational system in response to current needs. The first four papers deal, respectively with analyses of the interface between CATV and education from the national, community, cable operator's and Federal Communications Commission points of view. Other presentations focus upon federal regulations and CATV, the role of the educator in working with cable operators and the franchise process, and school and community communications via cable. A description of an individual district's cable operation concludes the report. (LB)

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CABLE TELEVISION AND EDUCATION

Proceedings
of the
CATV and Education Conference
MAY 11-12, 1973



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PENNSYLVANIA LEARNING RESOURCES ASSOCIATION

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CABLE TELEVISION AND EDUCATION

Proceedings
of the

CATV AND EDUCATION CONFERENCE

Seven Springs Mountain Resort, Champion, PA

May 11-12, 1973

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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Pennsylvania Learning Resources Association
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Allegheny County Intermediate Unit No. 3

Pennsylvania Learning Resources Association

September 1973

PREFACE

During two days in May 1973, a group of media specialists and other professionals from throughout Pennsylvania gathered in the pleasant surroundings of Seven Springs to hear from some of the nation's and state's leading authorities on the use of cable television in education. The wealth of information and ideas forthcoming from this conference was more than could be absorbed in the time provided. As a result of this stimulating information overload as well as to provide a source of current information on CATV and education, Dr. David Grossman, President of the Pennsylvania Learning Resources Association, recommended the publication of these conference proceedings.

We extend our thanks to the conference participants for providing the material that is contained herein. Some of the presentations offered were transcribed from audio tapes of the original speeches and edited for publication. Although an effort was made to remain true to original content and meaning, there is always the possibility that distortion and error might have entered in. The editor accepts full responsibility for any such variance from the original presentation.

The major credit for gathering the materials for inclusion in these proceedings goes to Earl L. Cardellino and Charles G. Forsythe who not only planned and conducted this excellent conference but also followed through afterwards to make possible this compilation of the proceedings.

Paul W. Welliver
Chairman
PLRA Publications Committee

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THE NATIONAL VIEW OF CATV AND EDUCATION

Harold Wigren
ETV Consultant
National Education Association

Box Score

Cable systems in the United States as of April 1973 - 3,000
Serving approximately 5,000 communities
Communities where cable franchises have been awarded and are not in operation yet, but construction pending - 1,760
Applications for Certificate of Compliance received - 2,400; certificates granted - 1,100
Estimate of total number of franchises to be granted eventually - 10,000
Cable companies in nation - 1,100
Trend toward merger and consolidation: 12 cable firms hold slightly more than 50 percent of the subscribers; the top 50 cable companies had 3/4 of subscribers
Most cable systems operate in smaller communities, but on the move to urban areas
Half the systems serve fewer than 1,000 homes each
Subscriber pays \$5 to \$6 monthly; most pay around \$20 for initial installation
State regulation: Rhode Island, Vermont, Connecticut, Nevada, Hawaii (license and franchise)
State commissions: Massachusetts, New York, New Jersey
Commissions pending: Illinois, Maryland, Minnesota, Arizona, California, Maine
Largest number of channels - Akron with 64 capacity

Signs of the Times: Observations Regarding the National Picture

1. Cable TV is in a transition stage, at least in the major market areas; changing rapidly from "television stations" to "communications systems". The concept of cable has grown enormously. No longer is cable a matter of providing a refined version of over-the-air TV that was there anyway. Now they provide much more than this, particularly in the larger urban areas.

Cable system includes: over-the-air broadcasting, plus a host of other signals - locally originated programs, channels devoted to time, weather, stock market, news tickers, program materials specially syndicated for cable. So, cable systems are become more complex.

Cable technology is developing rapidly; components in use today will have a high degree of obsolescence.

For major markets, cable TV system is now a hybrid form consisting of three elements:

- (a) An entertainment distribution network - receiving and retransmitting broadcast TV programs
- (b) A quasi-public communications system serving local government and the schools
- (c) A transmission medium for a variety of new "nonbroadcast" services - in the future, remote shopping, fire or burglar alarm systems, pay TV. These can be introduced as they become feasible and economically attractive. They can be either commercial (as pay TV), or noncommercial (public service, such as a school-to-school burglar alarm system) or quasi (in between) application, such as a cable channel leased by a publicly supported university in order to provide adult extension courses to subscribers for a fee.

Robert Steiner, in his VISIONS OF CABLE-VISION calls these three stages: the caterpillar, cocoon, butterfly.

2. The market demand and economic feasibility for many projected new cable services are yet to be demonstrated. "Chicken and egg" syndrome in which many new services are feasible only with a large subscriber base. But these are the uses of cable that are most promising.

Comment: Community leaders (including school people) and cable operators are frequently at odds on this point. Certainly, a "minimum initial cost" cable system design may place too much emphasis on present uses at the expense of future services which well may become more important. On the other hand, it is unreasonable to demand a system design that places all the emphasis on "what the system can become in the future" especially when these services are at present only possibilities, with little knowledge of whether there will be a market for such services.

What is needed is a balance between the two extremes: sufficient flexibility in both design of the system and in the franchise structure, so as not to foreclose options for the future and yet not impose an undue financial burden on the operator.

One of the ways this can best be done is to adopt a minimum standards ordinance in our cities - an ordinance that is responsive to the particular needs of a city and that assures that there will be a future which will permit the system to grow into the butterfly we would all like to see cable become and at the same time allow the operator to phase into new services as the market develops.

3. There is still a mad scramble for franchises. There's a powerful line-up to seek CATV licenses in many major cities. CATV is still a very powerful animal. City officials are forced into the awkward posture of choosing from among constituents with lots of political muscle.

This creates the risk that the choice will be made on the basis of "pull" rather than technical expertise or community interest. As city councilman Frank Mann said last week in Houston, "You can't take politics out of politics."

Read opening paragraphs of Wall Street Journal for May 2 under heading. "Wired In."

Other examples:

- Dayton, Ohio - Cypress Communications a strong contender because it's allied with the black coalition in a predominantly black city.
- Louisville, Kentucky - G.E. employs some 20,000 of the local residents and the lawyer is former Governor Bert Combs.
- Arlington, Virginia - Arlington Telecommunications Corporation has a coalition of Republican leaders, including Fred Ford, former FCC chairman.

The first thing any cable operator does is to put together a heavily influential group of local people. So wire-pulling (not wire-tapping!) is the key to potential power.

Now the pattern is for several groups to apply for the franchise in a city, each loaded with local talent. Sometimes these are combined with well-heeled outside cable companies - TelePrompter or Time-life, etc.

Frequently, too, a local group gets the franchise, sits on it, and in a year or so sells it out (at a handsome profit) to an out-of-state conglomerate (absentee landlord).

4. There has been a notable lack of involvement of the public in any significant way in the decisions regarding the shape of cable in their communities. All too often there has been the feeling that the problem is too complicated for the public to understand and the city fathers will have to take care of the matter to the best of their ability.

One of the Task Forces of the FCC's Federal/State/Local Regulation of Cable Committee put the problem this way:

"The overwhelming experience to date with development of cable television in the local communities in this country has been for consideration of implementation of a cable system to be initiated by prospective franchisees who have submitted applications or letters of intent to the local governing body. It has been the rare experience for any community to examine the issues involved in cable television and then to ask prospective franchisees to submit proposals for award of the franchise. The community has simply reacted to proposals submitted to it rather than fully investigating the implications and potential for cable and shaping the cable system to the community's own needs. The local governing body has failed to involve the public . . . in a decision which may have great impact on their lives in the future. There has often been a total absence of basic procedural safeguards, such as notice, rights to a public hearing and sufficient time for the public to become educated and have the opportunity to be heard on the issues. The extent of public involvement

and the information made available to the public concerning the potential impact of cable television has been minimal.

"As a result of these conditions many communities have received less than adequate cable television systems and have given away franchises upon less than adequate franchise agreements. In some communities, literally years passed without any action upon a cable system following award of a franchise. In others, minimal systems were constructed without adequate consideration of changes in the state of the art and the need to upgrade the system. Some communities became enraptured solely with the potential revenues from the system requiring franchises to pay fees far in excess of reasonable costs of regulating the system. Communities were simply taking what was offered rather than trying to set standards and take the initiative in shaping the system."

5. Citizens groups, consortia of organizations, study commissions, coalitions of minorities within a community are forming. Publi-Cable is a good example. (Tell about Publi-Cable and the Kutztown conference.) But there are citizen groups springing up around the nation:

Minneapolis-St. Paul area citizens committee	Lexington, Kentucky
East Lansing, Michigan	Memphis
Sacramento	New Orleans
Philadelphia	Fort Wayne, Indiana
Rhode Island	Albuquerque
Seattle Citizens Advisory Council	
Houston Educational Advisory Council	
Iowa State Education Association	
study commissions:	Wisconsin's Blue Ribbon Commission
to study cable:	Urban Cable Communications Task Force, Cincinnati, Ohio

6. Educators and librarians have been especially active in the franchise fight nationwide. NEA has been a Paul Revere in the effort. Show NEA's publications.

Discuss NEA's (not Publi-Cable's) 20 percent franchise request:

- a. 20 percent includes not only education, but government and public access

"A minimum of at least one educational access channel should be made available without cost for the length of the franchise. Additional channels, both standard and non-standard, should be provided free of charge up to a total of 20 percent of the system's capacity for educational, instructional, governmental, and public access programming, as the schools and the public demonstrate their ability to use these channels. Until such time as a community is

able to utilize these channels, the franchisee should be permitted to use them for other purposes. A proviso should be added that the educational community has the right to preempt such use of these channels upon giving six months' notification to the franchisee."

- b. We are laying claim to access for the future - spectrum space to meet the needs of education in the years ahead. In the 1940's, public policy dictated that 20 percent of FM radio frequencies be set aside for educational and other noncommercial uses. In the early 1950's, when new broadcast television channels were established, approximately 20 percent were likewise reserved for educational use. At the threshold of the 1970's, the NEA recommends that the same 20 percent principle be applied in the development of CATV for educational and public uses. This would allow educational uses of CATV to grow along with the industry and would guarantee access to a minimum percentage of available channel capacity for noncommercial education and public service use.

The argument that the Center and the FCC give (i.e., that educational channels are not being fully used across the country and that the educational community has demanded channels but has thereafter failed to implement programs for the use of such channels or provide the financial means for utilizing such channels) is an argument that we are all too familiar with because they have used it all across the nation. We, too, regret that schools have not seen the importance of using the channels up to their capacity and we're attempting to do something about this. We're asking that these channels be earmarked for schools to use when we get the money and develop the programming for the channels. We have said in our franchise provisions that "additional channels, both standard and non-standard, should be provided free of charge up to a total of 20 percent of the system's capacity for educational, instructional, governmental, and public access programming, as the schools and the public demonstrate their ability to use these channels. Until such time as a community is able to utilize these channels, the franchisee should be permitted to use them for other purposes. A proviso should be added that the educational community has the right to preempt such use of these channels upon giving six months' notification to the franchisee."

In other words, we're asking that spectrum space be reserved on the cable for schools just as spectrum space was reserved for education in the early 1950's on broadcast channels. Had this not been done, there would be no public (educational) broadcasting today! If it was important to do this for educational broadcasting, why is it not equally important for educational cable-casting?

It seems to us to be totally unfair to give the burden of proof to the educator when the FCC is not asking the cable operator for documentation as to what he is going to do with "company" channels. Why put the burden of proof on education and not the cable operator?

7. Both educators and librarians are now turning their attention to programming for cable:

- Institute for Librarians in Philadelphia (Drexel University) last fall
- Conference this week in St. Cloud, Minnesota, for seven states
- Publi-Cable conference
- National Cooperative Cable TV Conference, May 30, 31, June 1 at Madison (to help groups get new cable TV cooperatives under way and operating), University Center for Cooperatives, University of Wisconsin, in cooperation with Wisconsin Federation of Cooperatives, National Rural Electric Cooperative Association
- Iowa State Education Association workshops in June
- Open Channel's training programs for educators in New York City
- Alternate Media Center's work in Orlando, Kutztown, Reading, Bakersfield

Librarians especially active in programming -

a. ALA has two bodies dedicated to cable:

ALA's Ad Hoc Committee on Video Cable Services in Libraries
 Task Force on Cable in the Social Responsibilities Roundtable
 (provides information to librarians who want to get into cable; provides videotape exchange; identifies consultants)
 Newsletter - CableLibraries, published by American Society for Information Science, 1140 Connecticut Avenue, N. W. (\$15 for 6 issues), serves as information clearinghouse for libraries
 Librarians are very much in the big middle of political action for cable.

b. Library activities in cable:

- Stimulating local cable coalitions
- Children's programming (Orlando and Bakersfield)
- Promoting Library services (outreach services to ghetto; specialized groups)
- Using cable for staff training - Orlando, Casper
- Public forums on cable (back up with print and visual materials) - Joliet, Illinois
- Open University - Public Library, Reading, Pennsylvania
- Programs for Senior Citizens - Portland, Maine; Mobile
- Video Reference Service - Mobile, Casper
- Planning information retrieval systems in Atlantic City, Orlando
- Interconnection between two cities - Lancaster and Reading - to share library delivery services

c. Educational programs on cable:

- St. Cloud, Minnesota
- Whitewater, Wisconsin
- Hempstead, Long Island, New York (Levittown) - Arnold Sparr
- Reading, Pennsylvania
- San Diego
- Stanford University and Southern Methodist University - computers
- Willingboro, New Jersey Township - using cable to transmit reading readiness programs to pre-schoolers
- Oregon State University, Corvallis - college courses for credit via cable, off-campus
- Monroe, Louisiana - medical education into doctor's offices and homes on cable
- Palm Desert, California - programs for migrant farm workers (Chicano) on health, child care
- Colorado Springs - local job opportunities

d. Related activities:

Some cable operators are employing a program staff to take initiative with schools. TelePrompter is a good example.

8. Cooperative activities between educators and cable operators are also developing in different places. This is a significant trend which must continue. Each needs the other. Good example is Reading - Earl Haydt and Berks Cable.

THE COMMUNITY VIEW OF CATV AND EDUCATION

David H. Leonard
General Manager
Pennsylvania Public Television Network

Let me start by saying the views are mine - but do, indeed reflect in a general way at least, the thinking of broadcast station operators in Pennsylvania. The title in the program has to do with the community, CATV, and education. As you might guess, my perspective is very much shaped by the concerns of community public television stations and educational broadcast councils. So I'll thank you for the opportunity to speak today about CATV, education, and the public/educational television system in Pennsylvania.

The last time I was asked to make such a presentation was almost four years ago, at the Pennsylvania Cable TV Association meeting. The Pennsylvania Public Television Network was just getting underway at that time, and I was new to Pennsylvania. I boldly suggested that I had lived in Oregon when CATV was invented there - and that since being a Pennsylvanian I'd learned than CATV began here. I refused to take sides at that time, and will do so again today. At any rate, that was the last time I got invited to a CATV meeting.

Educational broadcasting has come a long ways in the past twenty years. In Pennsylvania seven stations, all interconnected by PPTN, provide regular programming services to some 96% of all Commonwealth households, schools, and (I imagine) bars.

CATV has come a long ways also. Hundreds of cable systems provide television signals to over 20% of all Pennsylvania households, to many schools and (I imagine) numerous bars.

Distribution - getting the TV signal to where people view - has been a major task for many of these years. Public broadcasting, in Pennsylvania, has made it. There aren't many television sets in the state that can't be tuned to public television - directly, off a translator, or via CATV.

Of course signal distribution progress isn't yet complete - CATV will continue to expand at a rapid rate, satellite transmissions will some day reach us all, and other technologies will no doubt be developed. Although these developments will continue, it is high time we turned more of our attention to the uses we make of these mechanisms. We must make good use of what is now available, must decide what new programming is needed, and plan for future program needs.

I'd like to believe that all of us at this conference know that television programs, properly developed, produced, distributed and utilized, can help improve education. I'd like to believe that we all know about the 35 or more hours per week of instructional programming being broadcast into Pennsylvania classrooms right now.

The promise for CATV is, it seems, the multiplicity of channels available and the potential for return or feedback circuitry - certainly a strong challenge to education.

A recent Aspen conference on 'The Cable and Continuing Education' found cable operators suggesting that the technology of cable is far ahead of actual performance. And some operators also doubted that educational programming would ever be a significant part of their subscriber base.

Again at Aspen, many ideas were apparently expressed regarding the potential possibilities of CATV - at such time as the performance catches up with the technology. My intention is NOT to downgrade the potential contributions of CATV as a distribution system for educational television programming - either at the present time, or at some date in the future.

We all know that CATV systems have made it possible for many schools and homes in Pennsylvania to receive usable signals from ETV stations. There has been some individual local programming use of CATV as well - as I understand it we'll have a chance to hear about three of them at this afternoon's session.

But I believe my main concern remains. Where is the quality programming that is necessary if education is to make good use of television? Where is the money with which to buy or produce such programming?

Let me suggest that we build on the successes we have had to date. Approximately 1.5 million Pennsylvania students are represented in broadcasting council memberships - that's about 50% of the total state school population. On average, each district pays \$1.00 per student per year for the programming and other services provided. The Commonwealth, through the Department of Education, provides another \$.50 - \$.75 per student.

I conclude that the schools educating at least half of our students in Pennsylvania find the present broadcast instructional service to be valuable. (The other 50% non-members might find the service equally useful to them, but for a variety of reasons have not joined.)

I further conclude that given the present limited supply of instructional programming available for television and the limited monetary resources available for providing it to schools, the most cost-effective way we can go at the present time is through the public television (broadcast) system - with individual school districts working with stations and CATV operators to extend and improve upon the basic services as needed and possible within their own locales.

Based on the limited availability of quality programming and the need to be cost-effective, I suggest a three point approach for schools:

1. Schools should support and participate in the broadcast instructional school service offered in their area by council-station organizations. Support means paying dues (membership fees) and participation means to take an active role in helping determine what courses will be broadcast, by that organization.
2. Schools should provide television sets and good reception in all classrooms. Television without a receiver is useless, of course. Without a good signal the service won't be well used - and in many CATV is the answer to getting a good signal.
3. Especially for secondary school use, purchase tape recorders to be used for recording programs off the air (with station permission) and then repeat them during the week at each classroom's convenience. (Videotape recorders costing less than \$2,000 each are quite suitable.) Again, CATV systems may be able to provide this sort of service to several schools at a time, at a resultant savings in cost.

I haven't spoken much about CATV for the obvious reason that it is basically another distributive mechanism - another way to get television signals from one place to another. Just as the existence of ETV stations did not automatically result in adequate programs for education, neither does the existence of CATV necessarily result in usable programming.

I am urging all of you to look toward maximum utilization of the educational broadcast councils and stations in your areas as the first step toward maintaining and improving programming and as a strong way to lead into new and additional uses of CATV.

I am also suggesting that schools, CATV systems and the councils-stations should work together on a regular basis to develop programming and distribution systems that serve school needs.

There are things which can be done via CATV that cannot be done on broadcast stations, assuming that local origination or production equipment is available to feed into the CATV system.

School board meetings might be put on local channels, the school administration and teachers might provide periodic public reports, local sporting events might be covered, and so on through a number of public relations and administration and governmental uses. And, on occasion, there may be instructional needs which can only be done locally. Again, in dealing with some of these uses of CATV for program distribution, station-councils can assist individual school districts in accomplishing their goals. The organizational mechanism and ability to make television work in education exists at these centers and they are willing to help.

I hope my message is coming through.

For twenty years I've listened to people telling about the marvels of technology in education - of ETV stations laden with so many goodies that every minority and majority in the country would be satisfied; of CATV systems that would provide 20 or 50 channels of new, exciting programming for all tastes and interests at all hours of the day and night; of the great educational potential of 2500 MHz systems which opens up more than one channel for school use; and of satellites which will hover over the earth spraying us with many channels of great television programming to treat every human need and desire. Once in a while, not often, I have even heard someone speak of the programming which must be produced. How it must stimulate the mind and so on, and so on. And on certain very still nights in the summer, I have thought there was a voice out there somewhere hollering for some followers..."Come, let's find a way to pay for the imagination and talent we need in order to provide programming that counts. That's our real challenge."

A CABLE OPERATOR'S VIEW OF CATV AND EDUCATION

George J. Barco
Attorney at Law
President, Meadville Master Antenna Inc.

What I want to do if I can today, is read to you a message that you will carry back to the teachers and to the PSEA.

I want to describe the challenge that is facing us. I think you are ready for the challenge. I think your profession is ready for the challenge.

It is merely a case of what we can do, what we should do, and doing it. Nothing is every accomplished, ladies and gentlemen, unless we do it. I say to you that we have in our hands one of the most magnificent opportunities to render real service, not only to the students, but to everyone in Pennsylvania. We should not let this opportunity go by. Everyone of our children, every member of our society in Pennsylvania is entitled to have, if you please, an opportunity at educational and informational programming. We should not have it for just a few.

Let me tell you about a little dream I had about what we are talking about. I envisioned that there is a capability of tying in every community in Pennsylvania to an educational network. I envisioned that the University of Pittsburgh, which is interested in an external degree, and Penn State University which wants to provide classes both for formal educational purposes and for general information have the opportunity to use such a network. I envisioned Temple has the opportunity. Edinboro State College and all the other state colleges would have that same opportunity.

To start producing all the software that Dr. Carroll is concerned with, I envisioned that the Department of Education must take the leadership and start developing these programs.

I must tell you very frankly, ladies and gentlemen, that you, your organization, and the PSEA, must be leaders in this. This is the greatest challenge you have ever had. You secured financial and other benefits from your union and you should put it to work in this area. I say to you that it is perfectly feasible to interconnect every community in Pennsylvania. I tell you it is technically feasible to provide the start within the next two years of four channels on which you can provide educational programming from kindergarten up to the institutions of high education.

I submit to you, ladies and gentlemen, that if you meet the challenge and if the Department of Education provides the leadership, there will be not only four, but at least fifteen channels of education and information programming on a twenty-four hour basis if you want it for the people of Pennsylvania.

THE FCC VIEW OF CATV AND EDUCATION

Fred Cohen
for
H. Rex Lee
Commissioner
Federal Communications Commission

The time for delivering pie in the sky speeches about the wonders of cable is long past. It would be easy to tell you that cable would make every Alice and Jerry a veritable Einstein, or if you only had enough channels, cable could prevent drug addiction, raise teachers salaries, and put more money into the federal and state education budget. You have heard all those types of predictions before, I am sure, but it is time to get back to earth and the nitty-gritty of new technology - for the clock is running out on the educator. The newness and allusiveness of cable TV might very easily get away from you and then it will be too late. When the Commission was considering its cable rules two years ago we heard one cable operator after another deliver his or her sales pitch about the unlimited public benefits cable could bring if only we would give them distant signals. The educators were equally adept in delivering their pitches about what they could do about their schools and communities if only we would give them enough free channels for instruction.

The position of the educators wasn't too surprising given the promises of the cable entrepreneurs. The commission rightly recognized there is some merit to both arguments, and some members, like Commissioner Lee, who have a great belief in the educational potential of cable, argued long and hard to have one or more free channels set aside for education, public access and governmental use.

In the end, we arrived at what many feel was a reasonable solution, given the many diverse views. But that is not to say that our belief in the cable operator to enthusiastically support important public services or our belief in the ability in the educators to use the channels has been vindicated.

Some people may disagree, but the picture is not very bright. There are very few encouraging signs. Too many educators have sought multiple channels with no programming in mind, and too many cable operators have simply offered channels to superintendents and then hoped that they would never hear from schools again. Our rules are intended to help cable develop into a truly great new public resource.

As you know, the Commission has decided to require, in return for distant signals, that all new systems in the top one hundred market provide one free channel for public access, and one channel each for educational and governmental use.

These latter two channels are to be free for use by the local educational and governmental authorities for the period during which the system is being constructed and for five years while completing the basic trunk line. We also decided to allow franchising authorities in communities outside the major market to require the same access services of new systems if they desired. Systems already in existence have been given until 1977 to comply with our rule which went into effect in 1972. These requirements and others do not satisfy the educators. Some say that more channels, more free channels, can be set aside for educational use. In fact, a battle cry was raised during the cable hearing that 20, 30 or even 50 percent of the channels must be set aside for educational use. It was a cry reminiscent of the 54/40 fight slogan. Many suppose that if we had reserved more of the educational channels, the school authorities would more likely use the channels.

The Commission does not believe that the utilization of the educational channels is going to be inhibited by our restrictions of the number of channels. (1) It must be recognized that the Commission has assured the educational community and the franchising authorities that we will permit the designation of more than one free educational channel if, and only if, you can show during the certification process that these additional channels are necessary and capable of being used according to an existing and viable plan. (2) There is nothing in our rules that prevents an educational authority, school system or any other group from leasing channels albeit for a free program, and (3) because we have included an N plus one formula which requires the cable operator to make additional channels available when all the other channels are being utilized over a specified period of time.

There will always be channels when you need them. No, the inhibiting factor will not be the number of channels, rather it will be the educational system itself. There is no need to recount the rather sad history of educational telecommunications in the United States. All of you here are firmly committed to the wider utilization of communications technology in helping to confront the educational crisis in this country.

You know how difficult it is to get projects funded and moving. And, you are well aware of the problem created by the lack of money, teacher resistance and of course the overall conservatism of an academic community. Don't give up! Cable television is going to present you with some rare opportunities to experiment with reforming the educational system, opening the classroom, and improving the educational opportunities for all those now deprived. Thus, you should not waste your time discussing what might

be done with cable, or arguing over whether 20% or 30% of the channels should be reserved. Rather, you must now plan the orderly intergration of cable into your existing educational framework. This will necessitate your fitting cable into the already existing matrix of educational television and radio, ITFS microwave services, and the forth-coming satellite technology. It will mean sharing your programming and personnel resources, and coordinating planning on the local and state as well as the federal level.

Your preoccupation at this time, undoubtedly, is with the local franchising process. Although it is most important to insure a well-planned franchise is granted in your community, after full public participation and disclosure don't forget to look beyond and mere signing of the franchising. Direct franchising, that mere piece of paper, should be the beginning of your work and certainly not the end. Once the channel or channels are set aside for your use, you must be prepared to use them. Neither the Commission nor the cable operators are going to look favorably upon the educational establishment if those educational channels lay fallow. For, as we specifically stated in our rules, the use of the educational channels for five years is designed to encourage innovation on the uses of cable TV. After this developmental period the FCC intends to determine through consultation with state and local authority whether to expand or curtail the free use of channels or to continue this developmental period. And, it should be noted that when the cable compromise was made at the FCC, some people were willing to bet these educational channels would remain unused at the end of this five-year period. The handwriting is on the wall or perhaps on the cable. If the educational communities are not effectively using the channels within the next few years, it is going to be difficult for the Commission to retain any free dedicated channels for, breathing down hard on your back will be the program suppliers, the sports interests, banking, computer services, among others, all competing for a predominant role. And though the term conjures up all sorts of ugly connotations it should be recognized that the Commission is basically subsidizing education through our cable scheme. There is nothing wrong with doing this especially when you look at the terms of other federal subsidizing programs, but subsidies sometimes suffer from quick deaths if contribution to the public good cannot be clearly established.

Conferences such as this are important beginnings to insure that this will not happen, but they are only a beginning. The language of cable, the reports on cable, and the experimental plans on cable must soon be translated into actual working programs. Our regular scheme for cable will continue to evolve. Many questions remain unanswered. These include: "What is the definition of revenue?" "Are state regulatory fees allowable?" "Can institutional grants, as a percentage of the franchise fees, be given to the schools, libraries or other public access groups?" And what about the service commitments that are made by local franchises that are in excess of the franchise rules? Our cable TV advisory committees on the federal, state and local regulations have now completed these preliminary reports of

these and many other issues and a final report will be completed this summer. What the Commission finally decides to do in these important issues will greatly affect your use of cable. The more evidence you can provide that you are ready, willing and able to use the channels, the better you will fair as the Commission's regulatory program evolves. Now this is not to infer that the future of public cable service is solely upon your shoulders. It is time for the cable operators to help. The cable operators should make a greater effort to involve the citizens from all segments of the communities in planning and developing this technology. In the past they have not done so to any great extent. All too often the various groups in the community are sought out when the operator is bidding for a franchise, but as soon as that franchise is granted the individuals in the groups are not faced with open arenas, but rather, with closed doors.

So, if there is one word of advice for the cable operators, it would be to encourage the community to get involved in cable operation. Utilize the governmental channel to encourage individuals and groups to use the public access channels for promoting or organizing and working with advisory councils or the educators to be allowed to share in your vast cable resources in knowledge. In this way, the members in the communities will become the best salesmen in the cable system, and there is no better advertisement than that. This is good business practice - plain and simple. New technology such as lasers, fiberoptics, direct satellite broadcasting will some day be competing with cable TV. If cable has not established its foothold to its maximum performance for the public, you can hardly expect hardy public and regulatory support. The development of cable requires the citizens, public and private institutions, franchising authorities and cable operators to work closely together. Only through a concerted effort will education be able to reap the benefits of cable.

Several years ago John Gardner said, "I am convinced that 20 years from now we will be looking back at our school system and ask ourselves how we could have tolerated anything as primitive as education today. I think the pieces of the educational revolution are lying around, unassembled and I think we are going to put them together in the next few years."

Well those next few years have become history; our educational history has not improved. If anything, the situation has worsened. But, we at the Commission remain hopeful and confident that communications technology, especially cable, will be one of the key parts to solving the educational crisis and we stand ready to help you put those pieces together.

FEDERAL REGULATIONS AND CATV

Harry M. Plotkin
Attorney at Law
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I want to talk about two aspects of cable. First, I want to talk about the passive aspect, and then the active aspects. The Commission had three conflicting interests that they were concerned about. One was the interest of the people living in the community, to give them the opportunity to get as diversified television services as they could have. Obviously, that is a desirable objective and nobody could disagree with it.

But then you have a secondary objective if you bargain for too many signals. It might make it impossible for the local broadcaster to survive at all. The Commission was concerned that, permitting too many signals to come in, fractionated the audience too much. The public in that community would be left with reception services and would have no transmission services.

The copyright also got into the act. Originally, they were very happy when CATV got started. It expanded broadcast station audiences and, therefore, enabled them to charge more for their service than they had before. As distant signals started to come in, the copyright people thought they ought to have an extra payment service for those signals, because they weren't really being paid for it at the origination point. And so, those three conflicting interests were involved. The Commission, ultimately, in several steps, arrived at a compromise situation. It was to require CATV systems to carry all local signals and permitting them to carry the distant signals so as to make it economically viable.

They made this decision on the basis of breaking it down between the top one hundred markets, and non-top one hundred markets. The reason for the top one hundred markets, basically, is because the broadcaster and the copyright interests figure that the greatest amount of impact on revenues and competition came to the top one hundred markets. This was not a CATV concept. This was how to balance the other part of the equation. How do you keep the impact on copyright and on broadcasting stations to a minimum while permitting CATV to grow? That basically is how the CATV system regulation has evolved.

I have indicated earlier that the Commission has certain rules and regulations as to the kind of signals that the CATV system can and must carry. This is an important thing for educational broadcasting. I want to address myself for a minute to that. The Commission says that the present

rules are that you must carry all commercial signals from stations within 35 miles of your CATV system. You must also carry all commercial signals from stations more distant than that if they have an appreciable viewing audience off the air in your community.

In addition, you must carry all non-commercial educational stations that lay down a grade B signal over the community. The grade B varies, but it is usually something that can go out as much as 70 miles.

There are also translators they must carry. It makes a difference if the translator is for a commercial or a non-commercial station. If it is for a commercial station, you are required to carry translators if they are one hundred watts or more, if they serve the CATV community. If it is a non-commercial translator, you must carry it if you have five watts or more power in the community.

On the passive side, therefore, from the educational point of view, when a cable operator comes into a community, the schools are in a position to get their schools hooked up to the cable system. Certainly, there is no higher rate than what the commercial people are paying and, in many instances, a reduced rate. Sometimes there is a free rate. That enables schools to bring in not only all the commercial stations but, more important, educational stations. Also, from a local point of view, it enables you to put a certain amount of pressure on the cable operator to carry educational stations that it might not want to carry.

Under the rules, the cable company can carry any number of educational stations, no matter how far away, if there is no objection from the local educational authorities, state educational authorities, or the local educational station.

So, there are educational resources that are available on a passive basis which, if your own community does not have, you can arrange to get on the cable system. Some he must carry, some he may carry and there can be a certain amount of input to make sure that he does carry.

I must give you the opposite side of the coin. Educators sometimes behave just as "greedily" as commercial broadcasters. Under the Commission's rules and regulations, the local educational institutions can prevent the cable operator from carrying a distant educational station because they fear they may have a competitive impact on their ability to secure support. You would think, from the educational point of view, the greater amount of educational material you can have coming into the community the better. But, apparently, particularly those communities that have their own educational stations, they are afraid that they have to compete with the output of other educational stations in the cable home and they may lose some of their private support. So, some of the commercial considerations that are applicable on the commercial side even come into the non-profit educational site.

So much for the passive part. Let me now get to the active part. The active part comes into play fairly late in the game by the Commission decision in February, 1972. It arose because the Commission had frozen the development of cable television by limiting very severely the number of distant signals that cable television could support. Without distant signals it is very difficult, if not impossible, for cable television to make a go of it economically. In communities where people have three or more signals available, that is, have all three commercial networks, it is very difficult to persuade people to pay money for cable television reception if they can get it for nothing. There are some exceptions in cities like New York, where the people live in equivalents of valleys, because the buildings present such ghosts for the signals that they can't adequately receive the off-air signals. But, in general, the community that has three or more signals available off the air, the name of the game, from a point of view of a cable company, is distant signals if they are to be economically viable.

As I have indicated earlier, the importation of distant signals creates a problem for the commercial broadcaster who, historically, has been a client of the Commission much more than cable. These broadcasters say that their product is being utilized and that it is not fair to use the product without paying for it. So, the Commission arrived at an historic compromise in February, 1972. By expanding somewhat the number of distant signals that the CATV systems can import, the basic compromise was, if you are on the top fifty market, a CATV system can carry signals from all three networks, in addition to the educational station. They can also carry three independent stations. If you are in the second fifty markets, it is two independent stations and all of the remaining market is one independent station.

But in return for that, the Commission indicated that there ought to be something in it for the public. And what is in it for the public is the public access channels that the Commission made provisions for. The public access channels they made provisions for fall into four different categories. First, there must be a public access channel. This is a free-for-all channel. In effect it is available on a first come, first serve basis without any control or supervision by the cable operator, except for the fact that somehow or another, and the Commission doesn't spell it out, they must adopt rules and regulations to make sure there is no obscenity, no lotteries and materials like that. It must be a non-commercial channel, and the first one to show up for it, uses it. In some cities they are beginning to raise hackles. There is some very daring stuff that comes over on it that some people regard as obscene. Whether what they are saying is obscene is a matter of definition, but there has been some very interesting material that has been on these public access channels.

The CATV operator is not allowed to make any charge for it, either for the time or for the use of the facilities. The CATV company must have facilities available if anyone wants to use it. For more than five minutes at a time for a live studio presentation, CATV can make reasonable charges for the equipment. That's the public access channel.

Secondly, there must be a channel available for local education. Those of you who were here last night heard Fred Cohen tell you that "local education" is just put down in so many words with no attempt to define what it is. The channel must be free for five years, but the equipment doesn't have to be free.

The third is for local governmental purposes, again a free channel for five years, but again the equipment does not have to be provided by the cable operator. On all three channels, the cable company cannot have any control on what goes over except obscenity, no lotteries and also to make sure that it is non-commercial, that is, no commercials sold on it.

The fourth kind of channel is the lease access channel, which means they can lease it out to anyone who pays for it. You lease it out just like the telephone company leases out a channel. The Commission, at the present time, undertakes no regulations of what the charges should be, but I think that is down the road.

Now there are a lot of problems involved here, because the compromise was a political compromise and they use political in the Greek sense of the term and not in the passive sense of the term. It was really a compromise of the conflicting forces that were involved, and as a result has addressed itself to what the forces were involved without relation to what the beneficiaries were or what the public interest consideration involved. As I have told you, this obligation to make these public access channels available is applicable only in the top one hundred market. It is not applicable in any market below the top one hundred market. Being within the top one hundred market means that it is within thirty-five miles of the top one hundred market. If you have seventy-five thousand people and you are more than thirty-five miles from any top one hundred market community, there are no such obligations, so far as the FCC is concerned.

From an educational point of view and from a public access point of view, you would think what they are talking about is equally important, whether you are thirty-five miles plus a minus.

But you must remember that the compromise that resulted in this was first to the accommodation of the three interests, three conflicting interests, and that turns upon the top one hundred markets. That's why the Commission talked in that area. If your community, even as big as Austin, Texas, and you have a CATV system in Austin, Texas, but it is not a top one hundred market, there is no public access requirement there.

So that is sort of a hodge-podge from your point of view and from the point of view of the people using it. Where it is available or where it is not available grew out of a compromise that was related to conflicting commercial considerations. This is part of the public interest consideration that the Commission sort of regarded as a quick quote price for the additional signals. It is going to be difficult as the community comes to

them and says we don't have any public access channels, so you are thirty-six miles from Harrisburg rather than thirty-four miles from Harrisburg. I think you can see why you all need lawyers in this area, and why the cable operators need lawyers, because this discussion, this deliberation is related to my set of criteria, but once they get started the criteria are going to be shifted because you are going to have different forces coming into play.

I would like to talk about free channels because I think there are important philosophical considerations. As I have listened to some of your feelings, it is probably optimistic because no benefit is derived if the channels are free and are not readily available. I think in the first instance there is no problem with free channels because it is like the public lines out west, in the nineteenth century, when there were more lines than you knew what to do with. The government was anxious to get use of the lines. Therefore, giving them to people so long as they used the line was no problem. As our line becomes more valuable, more people want it, the problem isn't any longer if you give it away, but do you have a right to buy it, or are you restricted.

The same way with cable channels. At the beginning, to the extent that there is a plot for our channels, there probably isn't going to be much of a problem involved in saying that the channels available are for free, but they are not really free, because channels cost money. You can't really get a channel for nothing. It costs money in equipment and it costs money in maintenance. The question is, who is going to pay for this? The law doesn't pay for this. Somebody is going to pay for it.

Under the present system who pays for a free channel? It is not the people who use it, it's the cable customers. More and more you are going to find that cable customers are members from the John Q public, including many of the poor people. When you go into a community, particularly a community where minority interest is, its terribly important that the minority people have cable. They are the ones who need it much more than the affluent people. They are going to pay four or five dollars a month. If you are going to say to the cable operator, provide free channels, poor subscribers in many respects are going to pay for those cables that are given free to other people. Educational public access is a terribly important thing. But I think, like everything else, nothing comes free.

I suggested an analogy before that busing is a terribly important consideration, for example, in education. Not only busing to achieve intergration, but I am talking about the sort of community busing to achieve consolidated schools for quality education. Now every student certainly should have the opportunity to be bussed, but I would think that it would be very difficult if the problem first arose that you told the transportation company, since you have a franchise to operate a bus system you must transport the children free.

It is an important social instrumentality and somebody has to pay for it. Whether it is paid for by educational institutions directly, or by the state and so forth, people who get things free don't have much clought in serving their point of view. If you don't carry your own weight you don't have nearly as much clought.

The big problem is to make sure these channels are not gobbled up and utilized for commercial purposes. The right and maybe the obligation to make sure these channels are available is something terribly important to fight for, and to make the fight early in the game. These things, otherwise, can be gobbled up for commercial purposes. If they get gobbled up for commercial purposes, you can't get them back, believe me.

So, lay out the claim early and really play it to get a partnership with the cable company and the other participants in helping to get it started by providing some of the seed money in the form of reduced rates. But I think if the emphasis is on the free part, you lose the availability part, and I think availability is more important. You don't get free buildings either, and you have to have the buildings! You don't get free teachers. This has got to be a terribly important community instrumentality. But the community has to pay for it, if you start that way or not.

I represent public broadcasting, and believe me it would be a wonderful thing if we could get AT&T to provide us the inter-connection service free of charge. The most we could get out of Congress is, Congress said it should be lawful to for the Telephone Company to give you a reduced rate. But they never went so far as to say they are compelled to.

Probably a very serious legal problem is involved as to whether the government can compel a private businessman to give something away for nothing. It's not at all sure that even the Comission's present rules are valid, requiring the cable operators to give away some of their properties for nothing.

The Constitution says you shall not take private property for public use without compensation. When you require people to dedicate some of their property for public use without paying for it, there are some serious problems involved. In public broadcasting we did finally get the telephone company to agree to the reduced rates. So, we get our network for approximately 5% the rate that commercial companies do.

I think it is this kind of a precedent that is the sort of thing that you ought to be looking for. You will be participating in the making of the policy. I don't think you did up to now, and in the making of the policy on the federal level, you are the third party beneficiary of the Commission policy, because they were trying to throw something in to make the compromise a palatable one.

But now that it is there, you are part of the decision-making policy. It is a right, and also an important responsibility.

A Panel Discussion
on
THE ROLE OF THE EDUCATOR WORKING WITH CABLE OPERATORS

Remarks by Panelist: Robert P. Fina
Director of ETV
Kutztown State College

Implicit in the topic of this panel discussion is the question: What is the role of the educator working with CATV operators? Philosophically, the use of questions is the first expression employed when one begins to resolve a problem. The philosophy, or rationale, that is basic to one's activities can always be subject to scrutiny.

According to Susanne Langer, in her Philosophy in A New Key, a question is really an ambiguous proposition; the answer is its determination. There can be only a certain number of alternatives that will complete its sense. In this way the intellectual treatment of any datum, any experience, any subject, is determined by the nature of our questions, and only carried out in the answers.

"In philosophy this disposition of problems is the most important thing that a school, a movement, or an age contributes. This is the 'genius' of a great philosophy; in its light, systems arise and rule and die. Therefore a philosophy is characterized more by the formulation of its problems than by its solution of them. Its answers establish an edifice of facts; but its questions make the frame in which its picture of facts is plotted. They make more than the frame; they give the angle of perspective, the palette, the style in which the picture is drawn - everything except the subject. In our questions lie our principles of analysis, and our answers may express whatever those principles are able to yield."

With such thoughts in mind, I again ask. What is the role of the educator working with CATV operators? This question is a broad one for which there can be many answers. One answer is that the educator and CATV operator need to have interpersonal relationships. That is, they need to interact. But even this answer is very broad and at a high level of abstraction. So in order to become more specific, let's try to "Dick and Jane" the topical question by asking what is my role as an educator working with CATV operators? In order for me to formulate an answer to this question, I need more information from CATV operators. Therefore, I submit the following questions to our fellow panel members who represent CATV operators. If they will be so kind as to address themselves to each of these questions, I will be in a better position to define my role as I work with them. Hopefully, such questions and follow-up reactions will also

assist fellow educators in the audience to define their roles in working with CATV operators. These questions are based on the cable television franchise provisions for schools which have been recommended by the Cable and Satellite Team, Instruction and Professional Development, of N.E.A.

1. When you negotiate a franchise agreement with a community, what do you require in a basic overall plan in regards to current and future needs for telecommunications services for all segments of community life such as:
 - 1.1 educational?
 - 1.2 residential?
 - 1.3 business?
 - 1.4 institutional?
 - 1.5 government?
 - 1.6 citizens-at-large?
2. What access channels are you presently making available on your system?
 - 2.1 How much, and what type of programming are you doing on the educational access channel(s)?
 - 2.2 How much, and what type of programming are you doing on the governmental access channel(s)?
 - 2.3 How much, and what type of programming are you doing on the community access channel(s)?
 - 2.4 What percentage of your channels are being used for public access?
3. What type of channel capacity do you have in your cable system?
 - 3.1 How many channels do you have at present?
 - 3.2 Does your system have the capacity for expansion if local needs should ever require it?
 - 3.3 If you do not already have the capacity for 20 television broadcast channels on your system, when and how do you intend to provide for such a capacity by 1977?
4. What type of production facilities do you have available?
 - 4.1 Do you have 3,500 or more subscribers on your system?
 - 4.2 Are you providing local educators with the opportunity to originate educational programs?
 - 4.3 Do you have studio facilities for the public access channel?
 - 4.4 What arrangements do you provide for educators to use existing studio facilities?
5. Are you providing cable "drops" to local schools?
 - 5.1 Do you provide and install free cable connections to all schools within 100 yards of your trunk line?
 - 5.2 For schools that are more than 100 yards from your trunk line, do you provide and install cable connection at cost price or free?
 - 5.3 Where you provide cable drops to local schools, is your transmission a public service without charge to the schools for one or more TV sets that may be used?

6. Are you assisting schools to install distribution systems within classroom buildings?
 - 6.1 Do you provide at cost, below cost, or free, an in-school distribution system to multiple classrooms within a school when it is requested?
 - 6.2 If your answer is "yes", can you tell us about some specific examples?
 - 6.3 If your answer is "no", why don't you provide such service?
7. What capabilities are you developing for two-way communication in your system?
 - 7.1 Do you provide the capacity for return communication on at least a non-voice basis?
 - 7.2 Does your system now have the potential of eventually providing return communication without having to engage in time-consuming and costly system rebuilding?
 - 7.3 If your answer is "no" to the foregoing, what do you intend to do about this matter?
8. What are you doing about the interconnecting schools through your CATV system's head-end?
 - 8.1 If a school district wishes to originate programming from one or more of its schools for distribution to other schools or the community, can it be done in your CATV system?
 - 8.2 If so, please explain.
 - 8.3 If not, why not?
9. Do you interconnect with neighboring cable systems owned by other companies?
 - 9.1 In order that schools may share programs beyond the boundary lines of a particular cable franchise, do you interconnect with competing systems?
 - 9.2 Can you explain your answer?
10. Do you work with Educational Advisory Boards?
 - 10.1 Do your franchise agreements stipulate that a cable educational advisory board be established?
 - 10.2 Can you explain your answer?
 - 10.3 Who do you believe should serve on such a board?
 - 10.4 What should be the functions of such a board?

11. Do you provide non-standard channels?
 - 11.1 Do you provide special programs for select audiences in the sub-channels, the mid band, or those channels above 13?
 - 11.2 If you do this with schools, do you provide converters at cost?
 - 11.3 Can you explain your answers?

A Panel Discussion
on
THE ROLE OF THE EDUCATOR IN WORKING WITH THE FRANCHISE PROCESS

Remarks by Panelist: William Vogel
General Manager
Cox Broadcasting Corporation
Levittown, Pennsylvania

In the twenty year history of cable television, much has been developed on the educators involvement in CATV after the fact of the franchising and operational inception of a cable system, but very little is available in a before the fact basis, i.e., before cable comes to town.

Our discussion and the following suggestions are what we think can and should be done to remedy this situation.

First, the administrator and a member of the school board should make known to the town council that they are vitally interested in the educational advantages which can be obtained through the interconnection of the schools and the cable system, and they should ask permission to either advise, or be a part of the council franchise negotiating team. At the same time, the administrator and his curriculum consultants should begin planning on how they are going to effectively utilize the tremendously valuable teaching aid called television. Simply because a cable operator must provide a non-broadcast educational channel, it does not automatically follow that a worthwhile educational TV situation is going to occur in the educational unit. He is merely providing the vehicle, the educator must provide the subject matter.

Second, educators should consider what they would like to have included in the franchise concerning cable connections to the school facilities at a nominal charge, as soon as the cable system is constructed and energized. If a building is already wired for television, they can begin immediately to take advantage of the programming from the educational broadcasting stations carried on the cable system. If the building is not wired, they could probably arrange to have this done by the construction crew concurrently with the building of the cable system, and thereby save a consideration sum of money.

Third, they should investigate the possibility of a "share-the-cost, share-the-facility" type arrangement for the installation and operation of a closed-circuit TV studio. The reason for this is that if the cable operator anticipates that he will eventually be serving over 3,500 subscribers, he will be required by the FCC to originate some local programming

which could make part-time availability of the studio advantageous to him. The likelihood of scheduled use conflicts would no doubt be rather remote since the educators operate primarily during daylight hours while local cable TV programming would be done mostly after school hours.

Fourth, and perhaps the most important, is that they should be realistic in their thoughts and requests. They should remember that, contrary to some opinions, cable TV is still a rather high-risk venture, and that it is getting increasingly costly to get a system off the ground. Even the best managed system is unlikely to show a profit for several years and, therefore, requests for several dedicated channels, or for fully equipped studios at no cost, or any of a number of extravagant requests would be doomed to failure. This in turn could affect the outcome of all other suggestions.

In these ways then, you, as educators, can and should become involved in the franchising process. Responsible cable TV operators will welcome your objective and frank concerns.

Remarks by Panelist: Henry E. Lockard
General Manager
Harrisburg Cablevision
Harrisburg, Pennsylvania

After listening to some of the other presentations I almost feel like a recording doing a repeat but I think some of the points bear repeating. It is my hope it will start you thinking so when you get back to your own areas you can perhaps put some of the ideas into operation.

Three years ago we approached the Harrisburg School District with the idea of wiring every school room in the district with our cable plus a second cable that would go back to a common room within each building which would serve as a studio. This project was readily received. I might add this was a pilot and their cost was \$1.00. They are now running tapes and films from our studio aimed at the home audience as well as the student body.

The state of art has reached the point that very soon we will be able to feed programming to certain grade groups by means of pre-programmed converters. We are also working with Capitol Campus extension of Penn State where we will be giving them a channel to be used for on-campus paging and instruction.

Sammons Communications, the parent company of Harrisburg Cablevision, has applied for a franchise in a large southern town and the college there has already made it know they want to buy time on the cable for the purpose of higher education instruction. Another franchise wanted us to tie all of the schools together by way of the cable system for better distribution of instruction.

Last night I heard people asking that more than one channel be made available for education. With these comments I feel the educator sees the importance of cable but why not use the channel available before we start worrying about more.

If you don't have a system in your home town and there is a franchise coming up, get together with the applicant and tell him what you have in mind for an education channel. I'm sure he will do everything possible to accommodate you. It will be much easier to plan from the start of construction than to redesign later.

I have often had people say, "You have to make space available to schools." This may be true, but I didn't have to go to the D.P.I. for educational films and tapes, I didn't have to go to the school district to wire all of their rooms every before the FCC came into the picture, and I didn't have to go to Capitol Campus and make a channel available for on-campus use. All of this was done because we feel this is our social obligation to the area we serve.

Remarks by Panelist: Leslie P. Gottardi
Director of Audio Visual Education
Indiana Area Schools
Indiana, Pennsylvania

The Indiana Area School District's experience with the franchise process is rather unique that it has jointly entered the area of cable TV with the Indiana University of Pennsylvania. The district's administration saw a need for cable TV growing out of its unique non-graded continuous program plan of school organization and was determined to move cautiously because of the expense involved. The district's four elementary buildings were wired by the district's maintenance staff and put on the community cable. A teacher committee was established to determine guidelines for utilization of the video-tape equipment in the various curriculum areas of the elementary and secondary grades.

Several meetings were held over a period of two years with the cable TV company serving the broadcast area that our district comprises. It immediately became apparent that the type of program envisioned by our district was an expensive one in light of current budget allocations. This led us to look for help in the area of interest and finance. Since we have worked cooperatively with Indiana University of Pennsylvania in the past, we contacted them to explore the possibility of jointly approaching the cable company. To our delight, we found them more than cooperative in that they were preparing to contact us with the same offer.

After we had jointly agreed on how to approach the company, our work became increasingly easier. The cable company accepted us with "open arms" because, for the first time in years, they were dealing with a unified group of educators that represented the entire educational community.

The marriage of the Indiana Area School District and the Indiana University of Pennsylvania has certain advantages for its partner. For the district, the expense of TV studios and mobile equipment no longer exists because of the University's equipment. For the University, the problem of programming has been solved, in part, by the rich resources of the local school district.

SCHOOL AND COMMUNITY COMMUNICATIONS VIA CABLE

Brother Richard Emenecker, F.S.C.
Director of Instruction

Arthur P. Sharkey
Director of Television
South Hills Catholic High School
Pittsburgh, PA

Mention cable TV to a group of average citizens, and before you can say Super Bowl, you'll probably be subjected to a tiresome recital of the channels available on their master antenna system. Mention CATV to a group of educators, and you'll get the inevitable question: "How quickly can we hook every classroom up to the cable?" "What courses can be taught via cable TV?" "Is one educational channel enough?" Neither of these limited points of view comes anywhere near to approaching the potential of cable TV as envisioned by the latest guidelines for cable TV utilization by the Federal Communications Commission.

Briefly, community antenna TV is meant to be the communications technology of the community in which it's located. As such, it has the great potential of improving the life in that society through establishing a communications forum there via the medium of TV. But somewhere along the route between this ideal and the final hook-up, the ideal apparently lost out to clear reception of the Brady Bunch and inside squabbles about who can get the most from cable TV.

Clearly, if cable TV is ever to become more than just a way to get TV antennas off roofs and blacked-out football games into houses, someone needs to set a new direction. No one, perhaps, is better qualified than the educational media specialist who has had TV production and utilization experience in his school. In order to turn the trend around, educational media specialists must move decisively to get involved with the community. They must contribute their knowledge so that cable TV can become a well-used and well-understood tool of the community and its residents.

So, it's not a question of what can be done with the cable in the classroom as an end in itself; it's a question of what can be done to make sure that the community objective is realized.

A policy or a plan for community communications, not instructional programming, is the key to CATV development in a community. As it is presently designed, cable TV is the community's new technology. Educators

have lost sight of that fact almost entirely. Many communities have yet to be made aware of it. In its beginning stages, cable has to develop as an adult and community centered, not child and school centered, technology. The cable is intended primarily for home, not school use. Eventually, every group and aspect of community life can be served by the use of cable technology. It's the community leaders who selected a cable company and awarded a franchise. The newer FCC regulations are aimed at improving community communications. In an unprecedented ruling, that government organization has turned to an entrepreneur and requested that cable company operators handle the task of improving the social life of a community. It's an awesome task they have been given, and cable operators need all the assistance they can get from knowledgeable citizens. Only if educators translate their experience into community assistance can CATV provide improved community communications.

What can the educational media specialist do? First, he can go to community officials and offer his expertise in helping secure the best franchise. He can offer his familiarity with governmental resources and agencies which can provide needed information. He can serve on a community advisory board. He can press for the establishment of the position of Director of Community Communications so that there will be on-going responsibility for the establishment and maintenance of a logically planned community communications program.

Sources of revenue for cable companies come from the monthly service charge and from advertising over the cable company channel itself. This money, in turn, enables the company to support the 3 public service channels, stipulated by the FCC - the public access channel, the educational channel and the community or government channel. In most communities, it's the cable company channel which is the first to be activated. This is so for several reasons, the first of which was mentioned above - having for the most part to foot the expenses for the non-commercial community service channels. The second reason is simply one of knowledge. Cable companies know the rules and regulations which govern them more surely than the average citizen understands the social implications of a community channel. Community activities and announcements help fill the program logs of the cable company. The cable company is more willing to carry these on its channel than activate a separate community channel. But community communications might develop more quickly by separating the cable company channel from the community channel. Activating the community service channels would convey to the citizens of a community that their government is attempting a communications forum via the cable and not relying wholly on the cable company to perform that goal. Cable TV has great social value potential but communities have to take the initiative and not depend on the cable company to do it. This eventually gets around to money. Communities spend tax money on libraries. Someone has to convince them to spend tax money now on communications.

However, at the same time that they are working with community leaders to strengthen the cable system, the media specialist has yet another job. Cable communities have a need for visually and electronically literate citizens. A media specialist should seek to have his school develop communications courses to produce students who fill that need - students who can make intelligent use of cable facilities to communicate their viewpoints. These same courses could also be offered to the adults in the community who are interested in improving their communication skills by using the new technology of cable. Community service channels have the potential to make people participants rather than passive viewers. This can never come about until people are taught to feel comfortable when using the latest inventions of technology.

So far, most AV educators have neither offered their skills to the community, nor aimed communications courses at producing electronic literacy. Indeed, most educators confronted with cable systems have worried only about narrow matters directly related to the school. They have not realized that the educational aspects can be served only if the community aspects of the cable can get a firm foothold. Without a plan for improved community communications and effective local programming, CATV will never be more than a master antenna system.

COLONIAL SCHOOL DISTRICT'S CABLE OPERATION

Kenneth Selinger
Coordinator of ETV
Colonial School District
Plymouth Meeting, PA

Recognizing the value of television as an instructional aide, the Colonial School District began to investigate its possibilities four years ago. Developing a mass media course of study that presented both the theoretical aspects of media and a production workshop, a small studio/control room was built and program distribution was begun in the high school.

Once the high school had established the program, necessary production and distribution equipment, and trained students and staff, thought was given toward establishing a system in the junior high schools. After discarding the idea of duplicating studio facilities in both schools, two possibilities were considered to link the buildings - cable or micro-wave.

If it was possible to utilize Philadelphia Electric and Bell Telephone poles, cable was found to be the cheaper and more easily maintained system. The junior high school on the same campus as the high school was easily cabled through underground conduits, but the other junior high school, four miles away was more of a problem. Not only would the cable system need to use the poles, but rights-of-way would have to be developed with the Penn Central and Reading Railroads, and the Pennsylvania Turnpike Authority.

After four years and two Title II, NDEA matching grants, Colonial Instructional Television (CITV) is now a 4-channel closed circuit TV cable network reaching over 4,100 students and 275 teachers in the 3 Colonial Secondary Schools. Thus far, the emphasis has been on getting the TV signal into the secondary school classrooms. Additional channels, improved studio and control room facilities, inclusion of the elementary schools, two-way cable, and dial access are all being studied for the future.

Currently, we are also talking with privately owned cable companies to see how we might be able to utilize the free educational channel. Our own 4-channel system already is providing us with a great amount of flexibility in programming. This additional channel into Colonial homes would give our entire operation a new dimension.

OBSERVATIONS ABOUT THE CONFERENCE

Blaze J. Gusic
Educational Communications Coordinator
Pennsylvania Department of Education

The major purpose of the conference was the sharing of ideas about cable television and how changes through cable could help meet critical educational problems.

It seems that many in attendance realized the significance of cable. Many realized Pennsylvania's problems in education. Many realized that since schools cannot be built, nor teachers trained fast enough, in other media, existing classrooms must be converted to using electronic media.

Education in Pennsylvania, as everywhere, has become a major undertaking making ever increasing demands on our resources. Yet, in general, there has been no corresponding spurt in technology. Now before us is cable. Educators are interested. Questions are being asked about financial control, access, information systems, efficient utilization and closed circuit cable systems.

It seemed by the writer that concerned educators were mostly looking for more productive uses of school time through the specialized resources of cable.

The conference showed that technological innovations, i.e., cable, when wisely planned and operated, can and should have a far-reaching impact on education in or out of school. Many questions left unanswered as well as those answered seemed to hinge upon a belief that such innovations hold the promise of reaching more learners at less cost per individual than a traditionally structured system.

My experience as an observer as well as a participant seems to indicate that, though still limited and inconclusive, cable can provide a transformation as did commercial television. The questions were questions relative to the reforms of cable. The mediast knows that cable will require much time, money, talent and energy. The participants were, as if by mandate, evaluating and assessing basic assumptions underlying cable systems. They know the process of reform and change may not be formal or deliberate, but that it happens. They know it may be short or it may be long, difficult and sometimes even painful. The participants were really wanting to KNOW.