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ABSTRACT

The material in this report consists of transcriptions of audiotapes of the general session speeches and the reports of the concurrent sessions of this conference. The topics of the six general session speeches were: the responsibility of the educational communicator in the political process, commercial television programming for children, television and social architecture, the future of broadcasting, the ABC of cable television, and the future of educational technology. Some 27 concurrent session reports covered public and instructional television programming for cable television, on-site school television, telecommunications and public service agencies, low-budget television techniques, community support for educational television, and the Open University of Great Britain. The techniques of filming for television, career planning for telecommunication students, student-operated campus radio, and broadcasting in the Far East and Germany were also among the subjects of concurrent sessions. A directory of the conference participants and other background information about the conference are also included in the report.

(JY)



**REPORT OF THE
FIRST ANNUAL
CONFERENCE**

FEB. 22-26, 1971

1

SAN DIEGO

4/9/71

Date

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FORWARD

This report has been compiled specifically for the participants of First WEST Conference and is not available for general distribution.

The General Session speeches were audio tapes recorded and transcribed as faithfully as possible. Some necessary editing of the speeches was performed.

The Concurrent sessions were reported by conference participants. Therefore omissions in reporting certain of these sessions is due to the fact that the report for that session was never received.

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Program

Tuesday, February 23

"What Are The Problems?"

- | | | |
|------------------|---|---------------------|
| 8:00- 8:00 p. m. | REGISTRATION | North Foyer |
| 9:00 a. m. | OPENING SESSION
Color Guard: U. S. Marine Corps
Recruit Depot San Diego
Welcome: Gary Hess, President, WEST | San Diego Room |
| 9:15 a. m. | GENERAL SESSION
Chairman: John D. Summerfield
General Manager KPBS, San Diego
"The Responsibility of the Educational
Communicator in the Political Process".
Speaker: Hon. Lionel VanDeerlin
U. S. House of Representatives
37th District, California | San Diego Room |
| 10:00 a. m. | GENERAL SESSION
Chairman: John P. Witherspoon
Director of Television Activities
Corporation for Public Broadcasting
"ETV: The Whiter Grey"
Speaker: Robert Tschirgi, M. D., PhD.
Professor of Neurosciences
School of Medicine, University of
California, San Diego | San Diego Room |
| 11:00 a. m. | GENERAL SESSION
Chairman: C. A. (Shelly) Lewis
Head, Special Programs, University
of California, San Diego, Extension
"Television and Social Architecture:
Speaker: Richard Farson, PhD.
Dean, School of Design, California
Institute of the Arts | San Diego Room |
| 12 noon | OPENING OF EXHIBITS
(Exhibits will be open continuously
from noon until 6:00 p. m.) | Town & Country Room |
| 1:30 p. m. | GENERAL SESSION
Chairman: Gary Hess, President, WEST
WEST Business Meeting | San Diego Room |

- | | | |
|------------------|---|----------------|
| 2:30 p. m. | GENERAL SESSION
Chairman: Mark Hathaway
Utah State Director, WEST
"...with the Emphasis on Commu-
nication".
Speaker: Sanford I. Berman, PhD.
Executive Director, International
Communication Institute.
Suthor, Consultant to Industry,
and Dr. Michael Dean, Hypnotist. | San Diego Room |
| 5:00- 7:00 p. m. | WINE TASTING PARTY | Tiki Hut |
| 8:00 p. m. | GENERAL SESSION
Chairman: Patricia Swenson, Radio/TV
Supervisor KBPS, Portland.
"Broadcasting: Whither Now?"
Speaker: Mark Evans, Vice President
Public Affairs, Metromedia, Inc. | San Diego Room |

Wednesday, February 24

"Where Do We Stand?"

- | | | |
|------------------|---|----------------|
| 7:30 a. m. | WEN BOARD BREAKFAST | Chamber Room |
| 8:00- 8:00 p. m. | REGISTRATION | North Foyer |
| 9:00- 7:00 p. m. | EXHIBITS(open continuously) | San Diego Room |
| 9:00 a. m. | GENERAL SESSION
"Washington Report"
Status Report by Organizations:
NAEB - Chalmers H. Marquis
CPB -John P. Witherspoon
NPR -Donald R. Quayle
PBS -Hartford N. Gunn, Jr.
JCET -Frank W. Norwood
PBEC -Wayne Miller
AECT - June Dilworth
Status of Pending Legislation:
Copyright: H. Holt Riddleberger
(NAEB)
Facilities: Raymond Stanley
(USOE)
Long Range Financing: William E. Duke
(CPB) | San Diego Room |

Regulatory Matters:

CATV: H. Holt Riddleberger
(NAEB)

Equal Employment: Lionel J.
Monagas (NAEB)

ITVS, Satellites, Pay-TV: Frank
W. Norwood (JCET)
Administration Role and Priorities
Chalmers H. Marquis

11:00 a.m. FOLLOW-UP SESSIONS
(An opportunity to talk with Organization
Representatives)

CPB/PCEC/NFPB	San Diego Room
NAEB/NER/ETS	Council Room
FCC	Chamber Room
NPR	Cabinet Room
PBS	Forum Room
JCET/AECT	Senate Room

1:00- 1:30 p.m. GENERAL SESSION
Chairman: Ethel Booth,
Materials Specialist, Beverly Hills
Unified School District.
"The ABC of Cable Television"
Speaker: Donald V. Taverner
President, National Cable
Television Association.

San Diego Room

1:30 p.m. CONCURRENT SEMINARS

Broadcasting

Chairman: Bradford Warner, KPBS
"The FCC, Ascertainment of Community
Needs, and You"
Speaker: Robert L. Hilliard, Chief,
Educational Broadcasting Branch, FCC.

San Diego Room

Instruction

"The PTV and ITV Programming
Potential for CATV: A Two-Way
Street" A rap session on ways of
improving programming on CATV.
Chairman: Ethel Booth,
Materials Specialist, Beverly Hills
Unified School District.

Council Room

Participants: Henry R. McCarty
Director, Audio-Visual Section
San Diego County Department of
Education.
Charles J. Vento, VITA
Henry Goldstein, Chief Executive
Mission Cable TV, San Diego
David Lewine, National Program
Director, TM Communications Co.
Thomas E. Clayton
Manager, San Diego Area
ITV Authority

Instruction

Chamber Room

Chairman: Robert Holstin, Arizona
State Director, WEST
"On-Site School TV:
Two Approaches"
Speakers: Joan Scouller
TV Teacher
Lee Elementary School, San Diego
Larry H. Niggie
Director of Instructional Television,
San Marcos High School,
San Marcos, California

Special

Cabinet Room

Chairman: Allen M. Zeltzer, Direc-
tor, Instructional Media Center,
California State College, Fullerton
"Telecommunications and Public
Service Agencies".
Speakers: Mrs. Alice Rodriguez,
Audio Visual Coordinator,
Santa Ana Hospital
Mr. Harry Kailer, Battalion Chief,
Orange County Fire Department

Instruction

Senate Room

Chairman: Gordon Hughan,
National Instructional Television,
Millbrae, California.
"Breaking the ITV Utilization
Stereotype."
Participants: Ray McKelvey
Utilization Coordinator, KTEH-TV
Santa Clara County Schools
Louise Henry, Media Field Repre-
sentative, Santa Clara County Schools

Production

Chairman: Gordon H. Tuell,
 General Manager, KWSC
 Pullman, Washington.
 "Low-Budget TV Production Tech-
 niques: a Workshop, Pt. I"
 Workshop Leader: Thomas C. Meador,
 Assistant Professor, San Diego
 State College.
 Participants: Vince Molinare, Art
 Director, KPBS-TV
 Paul Marshall,
 Production Manager, KPBS-TV
 Roy Madsen, Associate Professor,
 San Diego State College
 T. Russell McMurtray, Eastman
 Kodak Company

2:30- 3:30 p.m.

Forum Room

Chairman: Bertha Montenegro, Cali-
 fornia Congress of Parents and
 Teachers.

"Community Needs and Support:
 Developing an Informed Local Au-
 dience Through Volunteer Effort
 and Involvement".

Speakers: Mrs. Allan E. Charles,
 First Vice Chariman, National
 Friends of Public Broadcasting.
 Miss Duncan McDonald
 Executive Secretary
 National Friends of Public
 Broadcasting.
 Mr. William Duke
 Corporation for Public Broadcasting

3:30 p.m. CONCURRENT SEMINARS

Instruction

Chairman: June Dilworth, Director,
 School Broadcasting KCTS-TV,
 Seattle, Washington
 "The Three Faces of ITV"
 Speaker: Donald N. Wood, Associate
 Professor, Radio-TV-Film
 San Fernando Valley State College

San Diego Room

Higher Education

Chairman: Martin Chamberlain
 Director, University Extension,
 University of California San Diego

Council Room

"The Open University"
Speaker: Kenneth K. Jones
Professor, Telecommunications
and Film, San Diego State College.
Martin A. Gienke
San Diego Area ITV Authority

Engineering

Chamber Room

Chairman: Robert Moffett, Chief
Engineer, Coast Community Col-
leges California.

"Telecommunications Engineering:
The State of the Art"

Panelists: C. Christopher Rager
Director of Engineering, KPBS
TV/FM, San Diego.
Jack Long, Chief Engineer
Mission Cable TV, San Diego

4:45 -5:45p. m.

GENERAL SESSION

San Diego Room

Chairman : Erling Jorgensen
Michigan State University
East Lansing, Michigan

"Focus on the Learner"

(Multi-media presentation by re-
nowned anthropologist and creator
of an advanced autotutorial pre-
sentation.)

Speaker: Brian Fagan, Professor of
Anthropology, University of California
Santa Barbara

6:00- 7:00 p. m.

VISIT THE EXHIBITS

Town & Country

(Exhibits close at 7:00 p. m.)

7:30 p. m.

GENERAL SESSION

San Diego Room

Chairman: James Dark
Chairman, Radio/TV Department
San Diego City College.

"Educational Technology: Today
and Tomorrow"

Speaker: Andrew F. Inglis
Division Vice President and Gen-
eral Manager, Communications
Systems Division, RCA.

Thursday, February 25

"What Can We Do... and How?"

8:00- 4:00 p. m.	REGISTRATION	North Foyer
9:00 a. m.	CONCURRENT SEMINARS	
	<u>Distribution</u>	San Diego Room
	Chairman: Charles M. Northrip Executive Director, Alaska, Educational Broadcasting Commission	
	"Non-Broadcast Distribution of Educational Programming -- Part I" (Satellite, CATV, 2500 mHz).	
	Speakers: Frank W. Norwood Executive Secretary, JCET	
	<u>Broadcasting</u>	Cabinet Room
	"Ascertaining Community Needs -- Part II, Radio"	
	Discussion Leader: James Robertson Director, NER, NAEB	
	<u>Broadcasting</u>	Forum Room
	"Ascertaining Community Needs -- Part II, TV"	
	Discussion Leader: Presley D. Holmes Director, ETS, NAEB	
	Lawrence T. Frymire Executive Director, New Jersey Public Broadcasting Authority.	
	<u>Instruction</u>	Senate Room
	"Breaking the ITV Utilization Stereotype" (PartII) Follow-up to and discussion of 1:30 session.	
	<u>Production</u>	Committee Room
	"Low Budget TV Production Techniques -- PartII"	

Student

Council Room

"Establishment Media Cover the
Campus"

Moderator: Jim Buckalew

Speakers: Jim Gordon, Reporter and
Newscaster, KFMB-TV

Stuart Hyde

Chairman, Communication Arts
San Francisco State

Ed Beeler

Managing Editor

El Cajon Daily Californian

Ron REina

News And Sports, KDEO Radio

Broadcasting

Chamber Room

Chairman: Gloria Penner, Director
of Community Relations, KPBS-
TV, San Diego.

"Closing the Rap Gap" (A rap
session on public relations and
fund raising activities in public
broadcasting.)

Speakers: Roland Fenz, Director
of Station Development Support
Corporation for Public Broadcasting.

Ed Pfister, Director of Information
Services, NAEB.

Production

Forum Room

Chairman: Paul Marshall
Production Manager, KPBS-TV
San Diego.

"Techniques of Filming for TV"

Speaker: T. Russell McMurtray
Motion Picture and Education
Markets Division, Eastman Kodak

Broadcast Education

Senate Room

"Put Media to Work in Broadcast
Education"

Speakers: Dan F. Baker
Instructional TV Coordinator
California State College,
Long Beach

Bill Weisgerber
Radio-TV Instructor
California State College,
Long Beach

Instruction

Committee Room

Chairman: Bertram Barer
Chairman, Radio/TV Department
San Fernando Valley State College.
"Television for Training: Case
Studies"
Speakers: Walter Robson, Hewlett-
Packard, Palo Alto, California
Phil Neuhauser, Jet Propulsion Lab
Pasadena, California
Reed Lawton, Western Region Director
National Industrial Television
Association

10:00 a.m. Broadcast Education Council Room
Region IV APBE Business Meeting
Chairman: Burrell F. Hanson,
APBE Director, Region IV.

10:30 a.m. SPECIAL STUDENT SESSION Council Room
"Career Planning"
Moderator: John D. Summerfield
General Manager, KPBS TV/fm,
San Diego.
Consultants: Don Williams
Business Manager, Mission Cable
TV, El Cajon.
Robert Montague
Motion Picture/TV Executive,
General Dynamics
President, Independent Film
Producers Association
Jay McMullen
Executive Producer, CBS-TV
Distinguished Visiting Professor
San Diego State College
Susan Ramsey,
Career Counselor
San Diego State College
Ray Watson, Business Manager
KOGO AM-FM-TV

11:00 a.m.

CONCURRENT SEMINARS

Distribution

San Diego Room

Chairman: Charles Klasek
Director of Education, Kentucky
Authority for Educational Television.

**"Non-Broadcast Distribution of
Educational Programming - Part
II" (The New TV Cartridges: What
They Mean to Educational Com-
municators).**

Speaker: George Hall
Associate Director, Professional
Services, NAEB

Reactors: Barbara Cole
Specialist, ITV and Radio,
Oregon Board of Education
Ethel Booth, Materials Specialist
Beverly Hills Unified Schools
Hugh J. Smith
Executive Director, Nevada Edu-
cational Communications Committee

Broadcasting

Chamber Room

"Racism in Broadcasting"

Speakers: David Crippens, Producer
KPBS-TV San Diego

Instruction

Cabinet Room

Chairman: Walter Robson
Hewlett-Packard
Palo Alto, California

"Criterion Testing"

Speaker: Edward Eisman,
Education Specialist
Naval Amphibious Schools
Coronado, California

Instruction

Forum Room

"Super-8 in Schools"

Speakers: Kent Bishop
Director of Audio-Visual Services
University of California
Santa Barbara
James Leaman
TV & Motion Picture Producer
University of California
Santa Barbara

International

Senate Room

Chairman: Kenneth K. Jones
Professor, Telecommunications
and Film, San Diego State College
"ETV in Russia"
Speaker: Robert Hilliard
Chief, Educational Broadcasting
Branch, FCC.

Broadcasting

Committee Room

Chairman: Douglas Montgomery
Program Manager, KCSM-TV,
San Mateo, California
"The Audience of Public Broadcasting"
Speaker: Leroy Miller
Director of Research, Corporation
for Public Broadcasting.

12:00 noon EXHIBITS CLOSE

12:15-1:45 p.m. 1971 WEST CONFERENCE AWARDS
BANQUET

2:00 p.m. CONCURRENT SEMINARS

Instruction

San Diego Room

Chairman: Jack Stoltz
Coordinator, Educational Broad-
casting, Santa Barbara County
Schools, California.
"Utilization Plans for the National
Drug Abuse Series: Turned-On
Crises".
Speaker: Rhea Sikes
Director of School Services
Metropolitan Pittsburgh
Educational Television

Students

Council Room

"Student-Operated Campus Radio"
Moderator: Ken Kramer
San Diego State College
Panelists: Jerry Zullo
San Diego State College
Robb Wilson
General Manager, KCR, San Diego
State College.

Instruction

"Local Development of Legislative Support for Instructional Media"
Speaker: Henry R. McCarty
Director, Audio-Visual Section
San Diego County Department of Education.

Chamber Room

Broadcast

Chairman: Joe Johnson
Associate Professor, Telecommunications and Film, San Diego State College.

"Investigative Reporting in Commercial and Public Television"

Participants: Jay McMullen
CBS Network News and Public Affairs.

Peter Kaye

KPBS Television News and Public Affairs

Cabinet Room

International

"Educational Broadcasting Across the Borders"

Speakers: Richard H. Bell
Director, Instructional Media Services, University of Calgary, Canada.

Julian M. Kaufman
Vice President and General Mgr. XETV, Tijuana, Mexico

Senate Room

Broadcast Education

Chairman: John P. Highlander
Director, Radio/TV
Fresno State College

"Articulation for Two-Year and Four-Year Broadcasting Students"

Speakers: Lynne S. Gross
Instructor, Long Beach City College.
Dan F. Baker

Instructional TV Coordinator
California State College, Long Beach.

Committee Room

2:00 p.m.

TOUR LEAVES FOR MISSION
CABLE TV & KOGO-TV

Entrance

3:30 p.m.

CONCURRENT SEMINARS

Instruction

San Diego Room

Chairman: Maynerd Orme
KCET, Los Angeles
"Children's Television Workshop
Report: Sesame Street and the
New Reading Series"
Speakers: Edward L. Palmer
Director of Research, CTW
Robert Davidson
Director of Development, CTW
Samuel Gibbon
Producer, Reading Program, CTW

Special

Council Room

Chairman: Hal Riehle,
Division of Instructional Media
Mayo Clinic
"Medical Television"
Speaker: David Caldwell, M.D.
Associate Head, Medical Media
Network, University of California
Los Angeles
Ellis R. Wayne, Ph.D.
Academic Administrator,
Office of Medical Education, College
of Medicine, University of California
Irvine

Special

Cabinet Room

Chairman: Elinor Richardson
Consultant-in-Charge-Television
Los Angeles County Schools.
"When the Masses Use the Media"
Speaker: Grant Masland
Doctoral Candidate, Claremont
Graduate School.

Special

Forum Room

Chairman: Robert E. Lee
Professor, Telecommunications
and Film, San Diego State College.
"How Music Fights/Helps Dialogue
in Radio and TV"
Speaker: Marlin H. Skiles
TV and Screen Composer
Hollywood.

International

Senate Room

"Broadcasting in Other Countries:
Far Eastern And German Educational
Television and Radio."

Speakers: Richard Meyer
Director of School Television
Service, WNET-TV, New York.
Elizabeth L. Young
Stations Relations, National
Public Radio.

Broadcast Education

Committee Room

"New Horizons in Telecommunications
at the Community Colleges:
An Open Forum."

Moderator: Robert Blaustone,
Chairman, Community College
Telecommunications Association
of California.

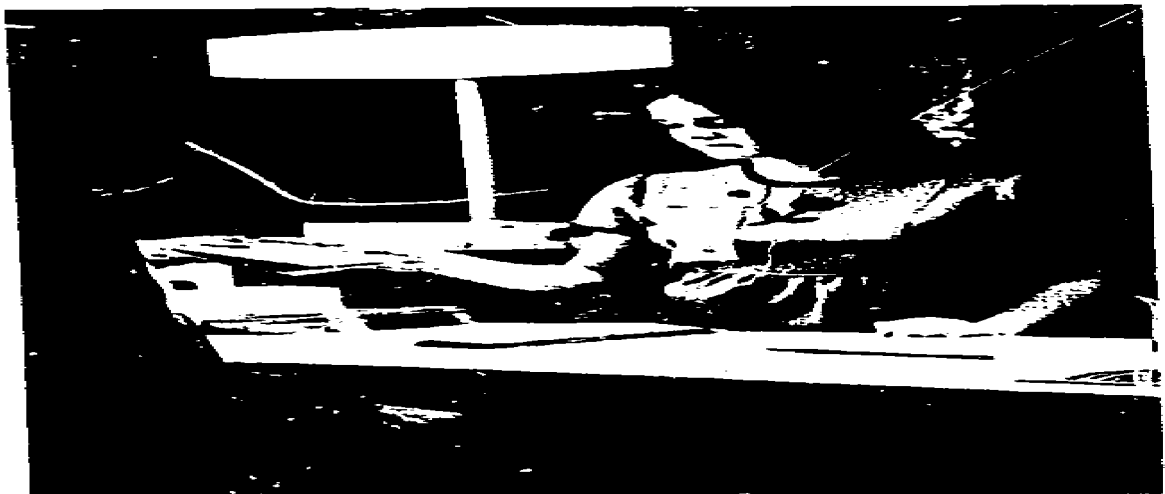
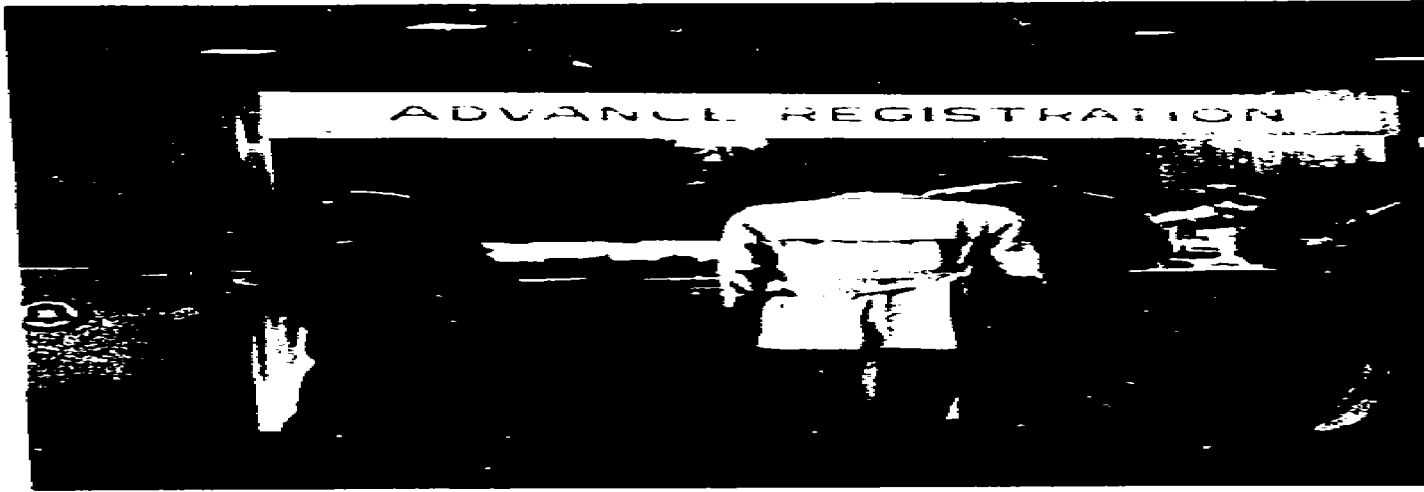
4:00 p.m.

San Diego State

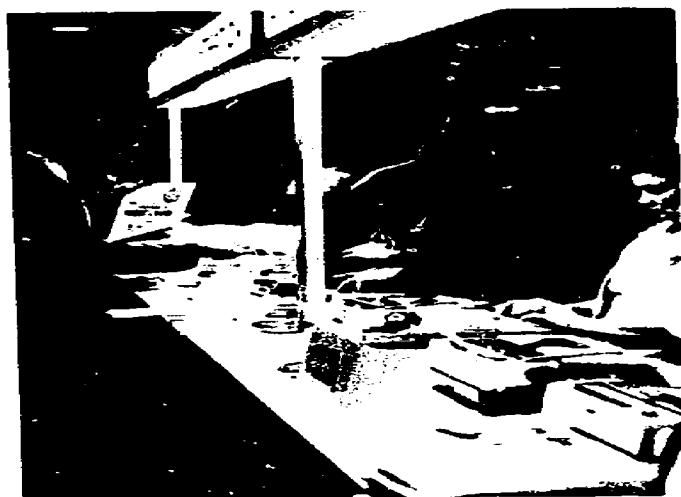
"Videotape Recording Techniques
for Theater Production"

Participants: Kenneth K. Jones,
Telecom and Film, San Diego
State College.
Michael Harvey, Dramatics Arts,
San Diego State College.
Roy Phillips. Dynamic Associates.
Robert Collins, Commercial
Electronics Incorporated.

Registration



Registration began at 8:00 a.m. on Monday, February 22 at a special booth set up in the lobby of the Convention Center.



San Diego State College student and a Theta Chapter of Theta Sigma Phi, for women in mass media. This conference. They provided their help at registration conference.

Opening Ceremonies

U.S. Marine Corps Color Guard of the San Diego Recruit Depot open the first West Conference.



Dr. Gary Hess, President, welcomes participants.

Opening the Exhibits

President Hess, Chairman Wylie and William Killian, local exhibits chairman, open the exhibits by cutting the ribbon held by Lynda Wilson, conference secretary.





The Honorable Lionel Van Deerlin,
U.S. House of Representatives
37th District, California

Richard Farson, Ph.D.,
Dean, School of Design,
California Institute of the Arts



Gary Hess, Ph.D.,
President WEST

General Sessions



Sanford I. Berman, Ph.D.
Executive Director, International
Communication Institute



Mark Evans, Vice President
Public Affairs, Metromedia, Inc.



Andrew F. Inglis, Division
Vice President and General Manager,
Communication Systems Division, RCA

THE RESPONSIBILITY OF THE EDUCATIONAL COMMUNICATOR IN THE POLITICAL PROCESS

Speaker: Hon. Lionel VanDeerlin, U.S. House of Representatives,
37th District, California.

I suspect that the reason I was invited to come is that we have some unfinished business remaining in Congress having to do with your chosen line. It may remain unfinished business even after the present Congress. But we are going to try to make a start and it's best for both of us if we can maintain the closest sort of contact while these decisions are being made.

You know that when we extended the public broadcasting bill in the last Congress and funded it even in so far as we did, it was really on the promise from our Commerce Committee to the rest of Congress that this was the last time we were going to come and ask for continuing authorizations and appropriations without some permanent funding system to put this still relatively infant form of broadcasting on a self sustaining basis. Now whether we are going to be able to make good on that promise or not remains to be seen. Perhaps there will be some sort of combination of general appropriations and some new specified tax.

In the hope of finding what others have done so well, (and as you know Great Britain and Japan have both moved well ahead of the United States in the field of publicly owned broadcasting), we have had some committee members on both sides of the world between sessions. Two of my colleagues and I went to Tokyo to try to find out what we could learn from the Japanese. As you know, the NHK in Japan is the oldest established system of broadcasting there. Now they are not coming in through the back door after commercial television is already established. Rather, there, it's the other way around. And as politicians those of us who made the trip were particularly impressed on being told that in Japan, at election time, every candidate for the Diet is permitted three five-minute appearances on television. The government provides this and pays for it and the candidate is allowed his choice of using NHK's channels or utilizing commercial television. Well now, can you imagine what the decision would be in this country if a candidate were offered his chance to go on the established commercial channels or go on educational television for the same length of time? Obviously to get the mass audience, you would go where the mass audience is. Well, in Japan the mass audience is on public television, and they say that the only candidates in Japan who use commercial television are those who have a piece of the action, that own part of the commercial stations. And I suppose they don't want to parade their lack of confidence in their property. So this is solid indication of the position that public broadcasting has.

Another sign in Japan is they have two thousand tax collectors who go around, and every two months collect a dollar and twenty-nine cents, I think it was,

from every set owner. And I asked, being a cynical American, "Well, don't you have any trouble with people trying to escape this tax by using indoor antennas and other ways, trying to get by without paying the tax?" And our informant looked at me unbelievably. He said, "Why no! No one tries to escape the tax here! They're so proud of their publicly owned broadcasting system. This is a part of the developing nation of which they're a part." I must say that I came away with a feeling that we have a little ground to make up in this direction.

The Corporation for Public Broadcasting has been limping along now for four years on annual authorizations which are really a bad way of doing this job. Bad for two reasons: First, it doesn't enable you to do the kind of planning that you should be doing as people who have a long range project and who must know how much money you're going to have more than a year ahead to carry out your project. Second, and I think this equally forceful, it's a bad system because it keeps you in hock to the politicians. Now, this may not be direct influence, it may not in all cases be improper influence, but we should manage, as the British and Japanese have managed, to set up a system of public broadcasting which is absolutely free of any possible interference with your decisions beyond those which any regulated industry must expect. I know that some of the network programs that have been carried on your stations have aroused indignation, within the community. And of course, when it arouses indignation within the community the next step is automatic within Congress: Elected public officials will always react if enough people in a community react adversely.

So you should have, if you are going to be absolutely free in what you do, some sort of trust fund established from some new taxing system to support your work. The suggestions most prominently offered have been taxes on existing commercial licensees. I suppose, in this audience, I would be safe in saying that commercial broadcasting licensees in this country have had rather a good thing in relation to the amount of license fees they're called upon to pay to the government. I think that they might be very willing to see a part of an increased license fee set aside for use in public broadcasting. Another prominently mentioned, and it needn't be mutually exclusive, source of tax revenue would be from a tax on new set sales. I would hesitate to espouse any system which at this point would say we should send a new army of tax collectors out in the field to go knocking on doors and asking people to pay a tax for sets that they have been enjoying without a tax to this point.

Even though we may make a start in this direction, I think that even the most sanguine among you would concede that you have not yet won the eternal status of, say, the interstate highway system. You're not quite politically ready, I think, to have an open-end trust fund established. I mean, you may be ready, but I don't think Congress is ready, to provide an open end trust system. A likely starting place would be legislation which I anticipate this year, following up both avenues, both a start on a trust fund and continuing authorizations and

appropriations. Thus far, your appropriations have ranged on an annual basis from nine to thirty-five million dollars. Whatever system evolves, I would hope to see some incentive funding provided for individual stations, apart from the Corporation for Public Broadcasting, so as to encourage them on some sort of matching basis to take the initiative, as John Summerfield's crew have taken here in San Diego, to rallying public support within the community for the work you're doing. I think it's a great feather in the cap of the San Diego outlet faced with a reduction in State funds, that they were able to go out, not as mendicants, not with palms up, but taking their story to the public, even through the limited audience that they have established on Channel 15, and ask for money and get it in the amount that John indicated they are getting.

Now it may be that a permanent funding system will allude us in this Congress. And I would make the point that in many parts of the country, I don't think this is true in California particularly, but in many parts of the country, and particularly in the deep south, the support that you will get from public officials will turn in great part upon the job that you do in strictly educational broadcasting. I see no reason at all in this great and growing and ever more complex nation of ours, why the typical public station should not become truly a college of the air waves. You probably get weary as public broadcasters, of hearing reference to the great job that was done by Sesame Street, as if this were the only standard that you have to run up the flag pole. But the story of Sesame Street is the story of the potential of broadcasting, not just public broadcasting. It's been an example to commercial TV around the world. Because, if you can teach pre-schoolers the basic elements of learning, why can't you also impart vocational skills and serve as a college or high school in the home?

Now I'm a traditionalist, and I'm just as fond as any one, being from USC, of those tower bells and the ivy covered walls that we associate with the traditional American college campus. But I envision a time when educational television will supplement, if not replace, the conventional campus. Millions of qualified Americans have been denied the opportunity and the rewards of a conventional college education and are still being denied that opportunity for economic reasons. Let television, the medium that reaches into virtually every home in the land, give them the chance to win a degree. Indeed, in one state, New York, which has learned a little something about crowded classrooms, even ahead of California, they're already awarding college equivalency degrees to applicants who can pass the required test, no matter how they came by the information, no matter how they prepared themselves. More use of television and radio for instruction leading to degrees would be a sound move politically because it would offer the hope of easing the demand for expensive new campus construction.

When we think about the technological avenues opening before you, we surely cannot ignore cable television. Someone has said that the introduction of cable in recent years and the expansion of cable from its original purpose of being a community receiving set is almost like starting all over again in broadcasting.

And if so, you should have a piece of that action. As a matter of fact, your national organization, the Association of Educational Broadcasters, is coming in as a witness before hearings which are starting at the Federal Communications Commission on the 11th of next month, having petitioned for twenty percent of all available channels, and fifty percent of the capacity on systems with twenty channels or more. That, of course, is a very large request. But it is a good place to start bargaining from. A battle is likely on federal pre-emption in the field of CATV which thus far has been left, almost exclusively, to the local communities and the state, almost as a public utility. I think we must be careful against vulcanizing this new technology at the very outset. And there will be legislation offered, there is a bill that's already been dropped in the hopper this year by my colleague from Rhode Island, Bob Tiernan, which would provide for FCC regulations of CATV, with the franchising and collection of fees left to the local community. Properly supervised and utilized, cable offers vast new opportunities for public service. It can do a job in very localized school needs. It can help provide local government communications on a level that no conventional broadcaster can hope to do. It can do a job for vocational training and job placement which is impossible on general television. And, this should be of some interest to you, cable could provide new sources of revenue for educational television. If the FCC doesn't move far enough and fast enough on this, I think Congress will be wanting to get its finger in on it very shortly.

Let me offer you one thing that you can do. And, of course, it's always very easy to stand up and give fatuous advice to people in a field who know a great deal more about it than you do yourself. Last Friday I was in Houston with the National Association of Program Producers, and I gave them a talk which I'm sure they considered quite fatuous, because I addressed myself to the opportunities which they don't look upon as opportunities, which are available to them under the FCC requirement providing some extra local programming, taking it away in prime time from the network. They seemed, to me, to lack some of the enthusiasm that program directors I have known in the early days of broadcasting would have felt for this kind of chance. But I told them one thing that I'm sure they didn't appreciate, and that was, for one thing, they could look at some of the program logs of some of the educational stations in their community. I noted that an average of 24 percent of programming on public broadcasting stations is locally originated, and that this compared with only 16 percent on the commercial channels. And that a great many of the break-through that they might be looking for in local programming could be found if they would examine what public broadcasting has done. I also told them that my wife knew where I was and was expecting me home, in case they wanted to try anything funny!

But now I'm going to offer you some fatuous advice. I think that you could do a better job than you are doing in relating your viewers to public affairs. Particularly at election time, exposing, and I use the term in its strictest sense, candidates for public office. I mean, putting them on the air without some of the "goo" that accompanies their appearances on commercial broadcasting.

Popular assumptions to the contrary, not withstanding, the record of public broadcasting at election time has been rather drab to date. As a matter of fact, your own publication, the Educational Broadcasting Review, in December of last year, carried a piece revealing that from the end of the Republican Convention until election day in 1968, the average educational station devoted only 1.8 percent of its total air time to coverage of political subjects. The reasons given are even more interesting than the statistic itself. The one that I find the most difficult to accept was that commercial TV is already providing adequate coverage. What a cop out! Second reason given, lack of qualified personnel and lack of sufficient funding. And third, station policy that bars controversy. Now imagine that! That first reason, that commercial television is already doing an adequate job, was advanced by forty four percent of all the station managers who answered the survey. And my notes show that a hundred and thirty three broadcasters responded, which must be just about the whole shebang. So carry their logic further about the great job the commercial stations are doing, and we'll find ourselves asking, "so who needs public broadcasting?" There'll be new legislation on paid political broadcasting in the wake of the President's veto of what I thought was an excellent bill for a start last time. But regardless of what is done by Congress in this regard, public broadcasting could be and should be more firmly assertive of a role for really educating the public at election time. You see, you have some telling advantages over those commercial broadcasters that so many of you think are doing a great job. Right off the bat, of course, you have no advertising pressures. And I am not the only person in this room who can recall some advertising pressures at times on commercial channels. You have fewer fixed time slots to contend with, and you are unhampered by the limitations that are inherent in commercial broadcasting, that of competing for the mass audience. And finally, your programming is not interrupted nor colored by the hard sell advertising of candidates themselves, as on commercial channels. Rooted as you are in your communities, and free of commercial pressures, public broadcasting should be increasing the public access to politicians. And I don't mean, of course, to the benefit of the politicians. If you do the job, you'd be slowing down and possibly reversing the most evident emphasis upon politician's access to media. In California, you know, it's been said that a man doesn't run for office, he poses! And the ETVers, if they put their minds to it, could provide a welcome antidote to the current glut of super slick commercials that actually tell voters nothing about the candidate. Your antidote could show candidates as they really are, warts and all. It might give us a higher level of office holder, present company accepted, of course.

This is perhaps the most appropriate juncture at which to put in a plug for public radio, now blossoming with a network of its own, national public radio. I understand that eventually it is hoped that a hundred stations will be interconnecting with programming that will be heavy with public affairs. And if you think that twenty years of "Loving Lucy" on commercial television are enough, what about

the brand of listening as you spin the dial on your radio? Surely the contrast to most available commercial fare will be even greater in radio than in television.

I would just, in closing, which I know always comes as happy words, urge you to keep the closest touch with your representatives in public office, not only in Congress but in the State Legislature. You have voluntarily taken on a life style with a mission. Now I know that things aren't as bad as they used to be. I suppose there were early day conventions of educational broadcasters that would be convening in a cold water walk-up rather than in a comfortable hotel center such as you're in here in San Diego. But I don't think you're fooling yourselves. You're not in this for the buck. Surely there will be some good rewards for competence. But there's hardly any of you who know that if you put your talents to the commercial field, the potential reward would be greater. No, I think you're in this for the same reason that I hope most public officials are in the work they're in, and that is that you hope to utilize your talents, and whatever moral courage God gave you, on behalf of some form of public service. And so its important that you keep in your relations with your legislators, a communication which will enable them to see things your way, and on occasion, as is necessary, will enable you to see things their way. Sometimes, you know, we talk to ourselves so much that we forget that great mass out there who are likely to think other than we do. It was the dramatist, Ibsen, who said that the greatest threat to freedom is the silent majority is what comes to mind, but he used other words, but he meant the silent majority, and I surely mean no political connotation is using that. He meant the great do-nothing masses. But they're the people who elect public officials, and you've got to persuade not only the public officials, but in order to keep your public officials strong in your support, you've got to keep a good share of public support in general. And don't be afraid to go out and carry your story. Stand up. You'll find that-- yeah, there'll be a few bruises, but sometimes the best cure for a bruise is to go out and collect two or three more and you'll be surprised - I know many of you have found this to be true: How a display of courage on your part brings out courage in others. There is a response here, as in so many other human contacts, which you'll find almost automatic.

I surely hope with you that the time is near when public broadcasting can be said to have won its spurs and that the job that it has done will be so effective, so entertaining, (yes, because a lot of people discover that they can be entertained by what they thought to be merely instructive), that you will find government more than willing to do its part as the representative of the people, in keeping alive a strong, a bouyant, and a really vital element of public information, public communication, in a country that sorely needs better communication. Good luck to you and good luck to those of us in public office who are pledged to walk with you towards that goal.

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ETV: THE WHITER GREY

Speaker: Robert Tschirgi, M.D., PhD. Professor of Neurosciences
School of Medicine, University of California, San Diego.

I was invited by Shelly Lewis to appear before you because he expected me to be unpleasant, and I intend not to disappoint him. Actually, I have become irascible ten years earlier than called for in my life plan. My friends tell me I never was serene and given to gentle reasonability, but I know they are afraid of the common human failing of retrospective falsification. My first symptom of this trend toward rancor was the observation that I no longer enjoyed any lectures except my own. And even those sometimes left me unmoved. Later I found myself hurling magazines into the fireplace in a fit of choleric passion. And finally, I discover with increasing frequency, that even though I may occasionally agree with what others say, I rarely can find any justification for defending their right to say it.

With this apology for any ascerbities which might creep, unbidden, into my words, may I begin by saying "Sesame Street" is a damning indictment of our public system of primary education. In a nation whose society depends upon the most sophisticated technology in the world, for its daily operations, and whose extremely complex political structure is predicated on rational decisions by its citizenry about subjects ranging from atomic energy to international economics, it is appalling that educational television should be praised to the skies for a slight assist in teaching a small segment of the population to add.

I do not come to bury ETV, but to praise it. I intend to praise it with faint damnation. However, the damnation will be of commercial television. Now the commercial television is the whipping boy, and has been for many years, and it has been pretty well rent to shreds by critics more able than I. But there has been left a vital, beating, black heart which I feel it my duty to drive a wooded stake through. I do not intend to flagellate it further in the areas of incorrect grammar and word usage: Winstons may taste good like or as a cigarette should, it doesn't really make much difference to me; there is only two calories in Fresca; and so on, are forms of grammatic bad taste, if nothing else, which I am not really prepared to condemn commercial television about. I will not condemn it for the fact that it promotes disease through smoking of tobacco or proprietary medicinals. I will not condemn it for its bad cultural taste where Shakespeare, when it occasionally appears, is after all, found at the bottom of the rating. I will not condemn it for its Mickey Mouse attempts at educational programming, they're not much more Mickey Mouse than ETV's attempts, as far as I can see, but nevertheless, they are certainly a step in the right direction. I will not condemn it for its inappropriate presentation of various minority groups

or various cultural concepts within the country. What I am going to condemn it for is as a learning experience. And I am particularly going to concern myself with the question of how do we become rational human beings? How do we learn to manipulate information in such a way that we can arrive at logical conclusions for our subsequent behavior?

Now, after all, all experiences, no matter what they may be, produce some learning, to a greater or lesser extent, in all of us. And the amount and type of learning depend upon many factors. And television has become a primary educational influence for both children and adults, this we cannot doubt. The average child, at the present time, as you know, spend more time viewing television than he or she does in school. Now, what does commercial television teach? General television programming contains instruction in every category of human behavior, since it presents materials from the entire spectrum of human experience. But what is the primary philosophic base, the primary value structure which is the orientation of the television learning experience?

Television, commercial television I'm speaking of now, is a product of the world of entertainment, and its philosophy is competitive showbiz. Essentially, this implies, appealing to any and all elements of human psychology with a single goal of capturing an audience. And generally success is measured by audience size with almost no effort being made to teach the audience new forms of appreciation. But materials are adjusted to appeal to the mediocre mean which, statistically, will capture the largest number of viewers. This will also educate all viewers, especially children, toward the mediocre mean. Since it is a fact of human psychology that sex, violence, catastrophe, destruction, and the dramatic hyperboles of life command attention, these elements are featured in programming and news reports. By their emphasis, they provide a distorted concept to the socially inexperienced child of the quantity of such human behavior in the adult world. But that's show biz.

Now I want to focus on one element, because it is seldom focused on in this particular way. And that's the commercials. Commercials on commercial television are probably one of the most remarkable competent and effective teaching techniques that has ever been devised. They are carefully constructed to appeal to human motivation. They are brief and direct in their message. They are repeated endlessly. Children learn them by heart. My own stepson can recite them continuously, sing them if they are musical, recite them word for word. He enjoys watching them on the screen and being able to say exactly what is going to be said just before it is said. This is an extremely effective means of influencing buying behavior, as is well known. But what about the connotive significance of the Madison Avenue psychology which produces the commercials? Besides product identification, what else? Do the children learn?

Now, unfortunately, most of us, including most educators, have a very simplistic idea of education. An education is thought of in terms of symbol substitution. That is, learning to identify things; nouns. You learn to identify a glass or a cup and put the right words with it. Or, in the more ultimately sophisticated sense, you become sort of encyclopedic. And education is thought of as creating an encyclopedia of facts in your head. This is the factual memorization which characterizes most attitudes towards what education is. And we neglect the most important educational influence of commercials, which is their reinforcement of non-critical, emotional thinking and inappropriate values.

Now, what are the connoted educational messages of TV commercials? The denoted messages are obvious. They are buy this product instead of that product. Now, I want to list for you some of the connotive messages that are in almost all television commercials, and that are, in my opinion, vastly more important than the denotive messages of the particular product. First, a connotive message in most all commercials is that the solution to all life's problems lies in purchasing the right product. The corollary of this connotive base of most commercials is that money is the prime requisite for happiness. And it is, second, that personal endeavor is relatively unimportant if you have the money to buy happiness. Most commercials are based upon that connotive value. A second connotive statement that most commercials are based on is that achievement of success is dependent upon purchasing the right product. The corollaries to that are obvious, that self-discipline, education and other difficult personal endeavors can be replaced by appropriate products. A third connotive message in commercials is that irrational, illogical, emotional thought processes are appropriate. They are reinforced by the way the commercials are put together, because the commercials depend upon irrational, illogical and emotional thought processes in the viewer. Since the mass consumer-viewers are rationally illiterate and subscribe to a series of fairy-tale myths concerning human motivation and behavior, the advertising agencies utilize these irrationalities to promote their products. These fairy-tale myths which characterize our culture, and which are so effectively used by the commercials, are, such as: One--youth is good and ageing is bad. Secondly--love, romance and children are the only necessary ingredient for female happiness and the after-forty syndrome in women in our culture, which is a very severe and unfortunate element of our culture, is given no preparation whatsoever. Thirdly--that love is a magic attraction between a uniquely determined male and female, dependent upon no qualities in the female except hair style, cosmetic application, and odor or lack thereof. Thus, it is entirely dependent upon products available locally at your friendly supermarket. The fact that seventy-five percent of marriages will end in divorces by 1975 would seem to give the lie to the effectiveness of many of these products. No evidence is provided, whatsoever, of the need for psychological understanding, compatible interests or any of the other important elements in interpersonal relations. One need only go down and buy the proper spray. A fourth myth which is used so effectively by the commercials is that sexual desirability is the ultimate goal of the female, and a primary goal of the male, and is a function of cosmetics and clothes.

Those are just a few examples of the myths of our society which are used so effectively and reinforced so effectively in our children by the commercials. How are the irrational, illogical, emotional thought processes reinforced by television? Well, let me give you some examples. First, what is called symbol affect radiation, which is really guilt or virtue by association. One identifies with something that is shown. For example, the most common ones now are sexual. Male sexual success, for example. First of all, a male viewer sees on the screen a highly virile male, virile in the conventional sense of American virility, which means usually rugged stupidity. And this desirable image for us males in this society, is shown enjoying a product. Enjoying a cigarette, or beer, or an automobile, or shaving cream, or clothing or what have you. When these products have gained enough sufficiently to make virility identification, then the product is to be shown with a desirable female, who obviously is clearly exceedingly turned-on by the product. Works very nicely. Female sexual success is shown in exactly the same way. Female viewers identify with a sexually attractive female plus product; cosmetics, perfume, clothing, etc., always with a male crawling appropriately into her net.

What are the logical fallacies which these commercials reinforce? Well among them is the one I mentioned, the stereotype physical appearance of what is a virile male in our culture. The fact that such physical appearance is, by no means, the only attribute of sexual success, is part of the myth that we live with. The American rugged male concept actually is not a terribly effective one, psychologically, and the somewhat more mixed male-femaleness, for example in the French culture, turns out to work out a little better. Nevertheless, the rugged appearing male, as shown to us, is supposed to be totally correct. Among the absurdities of logic for example, is the fact that the male or the female plus the product have no logical causal relationship to each other at all. But, by presenting them together, the average viewer is led into the logical fallacy of, if they are together, then obviously there is a cause and effect relationship.

The pseudo-logic and pseudo-science is a nice example of another one of the logical absurdities. The mass of consumer-viewers can be led to accept almost any proposal through emotional strategies based on the emotional desire to believe, or through pseudo-logical arguments which may violate any of the rigorous rules of logic so long as they have the surface appearance of reasonableness, and especially if they are presented in an atmosphere of scientific research with the announcer appropriately dressed in a white laboratory coat. The use of meaningless words and concepts is, of course, very common. Adman, Jerry de la Femmina, author of the book, "From Those Wonderful Folks Who Gave You Pearl Harbor", says, "You've got to come up with a line that sounds good but says nothing." I've picked out a whole variety of them. I was particularly fond of a little ad in a "TV Guide" which was similar to the same thing which appeared on the television screen, for Nabisco Shredded Wheat

which says, "You'll find quality in our corner. The body fuel gives more. You'll get more natural energy with Nabisco Shredded Wheat. The body fuel is 100% whole wheat." Now, I haven't any idea what natural energy is, as contrasted to unnatural energy, for example. I have no idea what is being referred to as "body fuel". I have no idea what is the relationship between natural energy and 100% pure whole wheat. The thing is a logical asininity. Yet it is quite effective, of course, because the words have the connotation of scientific exactness, yet they mean nothing.

Freeze-dried coffee, a new type of coffee on the market, which, I've forgotten whether it is freeze-dried or isn't freeze-dried, anyway, it's described as having sparkling crystals, richer, bigger, darker, more natural looking granuals. Sparkling crystals? That has nothing to do with what the coffee tastes like. Richer? I've tried many times to find out what the word richer means. Sometimes it seems to mean with fat in it. Sometimes it seems to mean with sugar in it. And sometimes it doesn't seem to mean any of these things, so I have no idea what it means here for example. Bigger? So the crystals are bigger. So, that has nothing to do with anything. I can hit them with a hammer and make them smaller and it will still taste the same. Darker? Indeed they are darker. Whether they're darker or not, again, has no relationship with how it tastes as coffee. So the whole pitch is completely fallacious from any logical point of view. Yet it works.

Pseudo-science is very effective in commercials. And reinforces the lack of rational processes which most viewers have. For example, take buffered aspirin. Quote, "Doctors have shown that X enters the blood three times faster than plain aspirin. X is therefore available to work on your headache three times sooner." Well, let's ask some logical questions about that. What is the reliability of the test? What doctors made that test? What were the conditions of the test? Was it on an empty stomach or on a full stomach? I very strongly suspect it was on an empty stomach because I'm quite sure those differences would not be found on a full stomach, yet very few of us take aspirin on an empty stomach. But nevertheless, it's not told what the conditions of the test are, and the conditions of the test, just with respect to whether the stomach is empty or full, will make a great difference in the results. What are the units of time that they're talking about? Thirty seconds versus ninety seconds? That's probably the times units that are being considered here. Alright, let us say there is a difference of thirty seconds versus ninety seconds. The aspirin begins to get into your blood stream in thirty seconds after you've taken it with the buffered, and say ninety seconds with the non-buffered aspirin. Let's just pretend that is so. Alright, that's correct then. It is available to work on your headache earlier. All of sixty seconds earlier. What do you pay for that sixty seconds? What is the relative cost of the sixty seconds? The buffered X costs two dollars per one hundred tablets. House brand aspirin, which is just as good except that, for the sake of argument, it takes sixty seconds more to begin to work, costs ten cents for one hundred tablets. So you are paying one dollar and ninety cents for the difference.

Meters will be shown on the television screen giving the relative whiteness of shirts laundered in different detergents, for example. No controls are shown. The concept of controls in scientific experiments is extremely important, and there is no such thing as a good scientific experiment without an adequate control. Which, in this case, would be shirts washed in the same detergent. Have several shirts washed in the same detergent, for example, and see what is the variation. How variable are they if you use the same detergent on the shirts? There are no units shown. How much difference is there? The needle just swings across the dial, when you have no idea what the units are that are being measured. Perhaps it is so small that it is of no consequence. That it is perhaps, invisible to the eye, but can be seen only by this type of machine. That is very likely. There is no description of the test. Is it a reflectance test, a transmission test? What is the wave length of the light being used? None of this is shown. The test is utterly meaningless. It has no conceivable necessary correlation with whether or not the shirt is brighter to look at.

And then there are the just plain phony ones. The glass plate covered with floor waxes. One yellowed and the other clear. It is not the floor wax that is, in one case yellow, and in the other case clear. It is the glass plate that is, in one case yellow and in the other case clear. This particular one was finally ruled out by the FCC, and they had to modify their description. They didn't have to change the actual use of two colored plates rather than actual floor wax, they had to say in quick words something about simulated. And if you say simulated quick enough, then it's all right, you can get by with this kind of thing.

Then there's the argument by authority which is widely used in all commercials, and gets most people effectively. We set up an authority to tell us why it is valuable to use this particular product. And the authorities range over a whole spectrum. They are, for example, a very popular kind of authority is just plain folks. If just plain folks like it, then it's got to be good. Another authority is public figures, sports figures, entertainers and so forth. If a basketball player likes it, it's got to be good.

And finally, there are the pseudo professional authorities. Doctors and scientists, usually described as doctors and scientists. Then there is the ultimate fairy story, the economy approach. It's free. This is one of the most remarkable ones, to me. The "it's free" approach. Nothing is free in our commercial economy. Obviously it gets paid for by some means or another. How this can work is quite beyond me. Yet it works most effectively. These are the tie-ins, the Jim crack stamps, and so on.

Well, what about the programming? I propose it promotes the same irrational thought patterns and fairy tale myths that are so clearly evident in the commercials. It presents average mediocrity without suggesting that any other level of cultural appreciation and intellectual accomplishment might be rewarded.

Do not misunderstand me. I'm not proposing that the cultural values of intellectuals should be thrust on everybody. I'm simply proposing that it might be worthwhile giving everybody the opportunity to discover that there may be other levels of cultural activity that are rewarding. The occasional education programs are not much better than classroom experience, which isn't very good. Commercial television has not created the commercialized values, the fairy tale myths of magic potions for sex and romance, success and wealth, intellectual and cultural illiteracy. It merely holds a rose colored mirror up to society in which it reflects the common, the average and presents it as the ideal. If you have problems, no need to go to any effort to change your behavior. Just buy the right product. For those who see themselves comfortably reflected, television is a great pleasure and a solace. For the uncommitted children, it teaches them the ways of mediocrity. Those committed to a higher or a lower level of cultural or intellectual sophistication, rarely turn it on.

As long as short-range commercial interests and show-biz values dictate the existence and form of television, and products sponsored are dependent upon mass consumption, I do not foresee any significant change in the preceding picture. Commercial television has emerged as the champion of the cult of mediocrity. To the extent that we abandon our educational responsibilities in the home to the television set, our children will flip among the channels for the least demanding, most familiarly entertaining format, and can hardly be expected to learn self-discipline, critical analysis, rational thought, deep insights into human behavior or motivations, or the cultural heritage which is their gift from the greatest artistic creators throughout history. Neither, for the most part do our children learn these qualities in the schools. And this is why TV viewing has so little effect on school performance. Let me read you a conclusion of a study of a series of studies on the effect of television viewing on children. And the conclusion is as follows: Despite some rather strong feelings to the contrary, a review of the research findings to date indicate that television's impact on youth has been very slight. In fact, television seems to have no more effect on children than folk stories, fairy tales, plays, movies, comic books, and novels. A fact which is not too surprising when one realizes that the content of these media is about the same as television, although the latter presents it with considerably more immediacy, drama and realism. Motivation for using the non-television media is the same as that for televising: entertainment, fantasy escape, and identification with heroic figures. Like the television medium, there is no dearth of violence in the non-television medium. Most adults can recall the ample diet of gory folk stories and fairy tales they had as children. There is one difference: The increased leisure of today results in the consumption of larger quantities of the television content. In other words, people are generally as irrational and ignorant as they used to be before television. Can educational television meet that challenge?

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TELEVISION AND SOCIAL ARCHITECTURE

Speaker: Richard Farson, PhD. Dean, School of Design at the California Institute of the Arts.

The kind of social architecture that we're in right now, with you sitting there expected to be passive while I'm sitting here facing you, this kind of arrangement, I don't know how long it'll last, because people are increasingly discontent with such formats. If you hadn't been brought up in the same kind of schools I had, you probably wouldn't be willing to sit quietly for people like me.

I remember, not all that long ago, being in a debate with B. F. Skinner, the guy who, among other things, invented the teaching machine. And, we were going on all right, but both had the feeling that the audience didn't like it too much. And, afterwards, we began to talk about why (I thought, actually, I was very good, he wasn't very good was the problem). But afterwards we were talking about it, and we thought, gee, there ought to be some way of giving the audience a chance to feel less victimized by circumstances like that. Perhaps we could put little levers by the chairs. We could flood the room with light, or some such arrangement. And one of the people sitting with us came up with the idea of passing out cards, like they do at cheering sections at football games. Colored cards that would mean certain things. For example, if you held up a green card, that would mean, "Amen, I'm really with you. Keep talking. I understand what you're saying." You need that kind of thing from an audience to turn you on a little bit. And a red card would mean: "You're telling me more about the subject than I really want to hear." A white card might mean, "I have a question, I got derailed, I need to stop for a minute." Well, we were in a part of a lecture series. The next guy of the lecture series was Carl Rogers, who's a well known psychologist, a very gutsy guy, and the guy I know that would try a thing like that. So they printed the program next time in those three colors, you could hold it up. And a couple of thousand people in the audience, and they went through the whole thing just that way. Carl, I don't know how well he liked that, but the audience loved it. They liked it very much.

I don't have any cards for you, but let's have, as a ground rule, that any time you want to interrupt and say something, that you'll feel entirely comfortable about doing that. Just go right ahead. Just make sure that your comments are inciteful and penetrating and helpful, intelligent.

You know we're all reminded about the ubiquitous quality of television everywhere. There are more television sets than bathtubs. It cuts across class lines, and so forth. And we forget that tens of thousands of Americans won't have a television

set in their house. These people are among the most cultured, educated, enlightened, thoughtful people in America. And they won't let a television set in their house. Not because they don't think there's anything of high quality going on. Not because they don't know what's taking place on television. But because, after twenty-five years of experiencing television, they regard the presence of a television set in their house, its overall effect, as so negative, that they would prefer to live without this modern miracle. Now that's a devastating thing to think about. That television could be the enemy of the people. That the reason these people don't want it, is because it doesn't serve the public good. And I'm here to tell you that I don't think it does, because television keeps doing what it knows how to do, instead of what needs to be done. Now that doesn't distinguish it from most of us, who continue to do the things that we know how to do rather than what we need to do.

We are always putting our energies in the wrong place. A woman's trying to plan a dinner party. She spends all her time figuring out the menu, preparing elaborate dishes, figuring out what the table decorations should be, getting the house all cleaned, working hard all day to get it just right. And those things have almost nothing to do with the success of the evening. Because the real success of the evening comes in the social architecture that takes place. What people say to each other. Who is there and how they feel about what is happening. Almost no attention is given to that.

We take rides in elevators. New elevators have improved so much over the past twenty-five or thirty years. The ride is smooth. There is soft music in them. They move very rapidly. But the experience of being on an elevator is the same as it has always been. It is always difficult. It is embarrassing. You don't know what to say. It's still a victimizing trap. If you're anything like I am, you don't know what to do when you get on an elevator. We haven't given our attention to that. We thought that the only problem was getting the ride smoothed out, or getting it faster. But that's not the only problem. It's like television itself. You go to a television station to be interviewed. They want you there plenty early so you can get your makeup on. Then they take fifteen minutes or so making you up. Then they ask you to get on your marks and they light you, making sure that you don't have shadows in the wrong places. Spend an awful lot of time. And then you're on for three or four minutes in the most inane conversation that could possibly take place. No thought given at all to what kind of conversation is going on. It's putting the emphasis all on the variables that don't matter. Well, we always do more of what we know how to do well, and that's what television's doing. People always want more of what they already have in great abundance. That's one of the crazy myths. Not what they need.

So I'm going to ask you to do today something you're not trained to do. And I can only justify this by suggesting that anybody who is doing what he is grained to do is so far behind times that he is almost out of it.

I'm asking you to consider television as social architecture. I'm asking you to consider yourselves social architects. Architecture is not buildings. Not even for architects, it is not buildings. Architecture is situations, conditions, relationships, networks, communications processes. That's what the new architecture is all about. But we're uneasy about applying what we know to things like that. It's all right to build buildings. But to try to arrange conditions that make it possible for people to live more successfully is something we're very uneasy about. We'll apply science to things like advertising. We'll apply it to improve the efficiency, or safety, or productivity, or something like that. But when we try to apply it to improve a relationship, to make a relationship more intimate, more sexy, more fulfilling in any way, we think, well, we can't apply science to that sort of thing. That's got to be by chance. That's got to happen spontaneously. Now I'm suggesting that we begin to apply what we know to the things that matter most to us. We can't, in educational television, change people. We can't do that. People don't change all that easily. We've never found any good ways to change people. And that's a very big put down of television, anyway. That it should change people, reform people. It doesn't do that well. We don't know anything that does that well except things that we don't really like, like advertising, training, things like that. Things we really care about, like education, don't change people. Neither does therapy change people. Or encounter groups, or whatever it is you're talking about. They work while they're going on. I think that's very important. TV creates situations. We can't reform people. What we can reform are situations. Buckminster Fuller says, "If you want to reduce the number of highway accidents, don't put all your time and effort on driver education. But let's build vehicles and highways that make it impossible for people to bump into each other." That's the way to reduce the accidents. If you put all your money in driver education, you will fail. We can't reform people. Forget it. Give up. Let's try very hard to form the condition into which people have to operate. Television is one of the most powerful conditions. And, like psychotherapy, it works only while it's going on. But while it's going on, it is social architecture. It does create conditions. So what we are suggesting is not education but liberation.

You're in the liberation business. You're not in the education business. You don't change people except while your programs are going. So forget about them having to work after they are over. Have them work while they're going on. And you can do that. In education and therapy and the fields where I come from, what I'm supposed to do is supposed to work after its over. Now you're not limited to that. One of the great benefits of television is that its heritage is show business. It is theatre. And so its only supposed to work while its going on. Make use of that. Don't allow yourself to be trapped into putting on something that may not work now, but you hope it'll work later. Make it work now. And make it work by changing the relationships that people have to each other.

Riding on the idea that anybody can be an expert at somebody else's business, I would like to make some suggestions. First of all, use television as a medium for planning and inventing the future. We've got to use mass media in this day. There is no alternative to that. There is no alternative to using mass media. No time left for anything else. We're in a situation in our society now where everything has to be done by everybody all at once. We used to be able to rely on a few people, the elite, brave, intelligent few leaders who would fix the world for us. Now we can't mention a crisis that we have, a problem that we have, social or ecological, that can be solved by a few people. It must be solved by everybody, and it must be solved by everybody now, all at once. That's the situation of the world. It doesn't make any difference whether all of the people in this room recycle their garbage. It doesn't make any difference whether you and all your friends recycle your garbage. Or whether two million people recycle their garbage. It can be rounded off--it doesn't make a bit of difference. Forget it. That's not the answer. Individual responsibility is no longer anything like sufficient. It may be necessary, but it is not sufficient. So we've got to do it everybody all at once. That means that big changes are going to be required. Not gradualism. Gradualism has never worked. Nothing we've ever taken a gradual approach to has worked, has brought about the necessary changes. Now we're in a situation where we've got to make big changes. And big changes are going to be, perhaps, easier to make than small ones. Because people don't know how to resist big changes, for one reason. It may be something less painless to do it that way than otherwise. Like taking a piece of adhesive off, it may be easier to do it all at once than do it little by little.

In any case, what we're in to is the need for making life-style changes. Almost all of the solutions to our problems, the remedies for our problems, and the only instant remedies we have are not technological. They are life-style problems. They require changes in the way we go about our lives. We can get immediate answers to problems if we could only make those changes in life-style. For example, in Los Angeles, where I live, smog and traffic are serious problems. Terribly serious problems. We could have an instant remedy if we could figure out a way to get six people into each of those cars on the freeway rather than one. The obvious one is to pick up hitchhikers or hitchhike yourself. Now, the reason we don't do that is because it requires a life-style change. It's not because it's dangerous. It's really dangerous not to do it. We're all going to suffocate if we don't do it. But the problem is, to pick up a hitchhiker, or to hitchhike ourselves, requires a change in our own idea of ourselves, our own style of life. That's going to be tough to do. But the only way we can do that is by a massive celebration of a change in life style and that is going to require the cooperation, in fact it's going to require the impetus of a mass media, television in particular.

Things don't change often as a result of planning. They change usually by invasion or rebellion, but not by planning. That's because we've never applied the great social technology that we have to plan. We've never tried to invent our future. We've never used the mass media this way. We could simulate

calamities. A multi-media simulation that would involve television and telephones and the press to give us a chance to experience what a calamity would be. And to try to solve that problem, because I really do believe in the calamity theory. And if we could tackle our race problems, our problems of insurrection, our problems of pollution, as a calamity that could be simulated, where we link television and telephone. You know we've got two very expensive pieces of terminal equipment in every home in America, practically -- a television and a telephone. And they've never been linked for the common good. They've only been linked in the most insane kind of talk back television conversations-- never been linked. The technology is already there. Now we are going to see some help on cable TV on that. But it's already there. We could already do a great deal. And if we could simulate possible futures for people, people will make good choices.

We think people aren't very smart. But people are quite smart. We have to learn to ask the right questions. We keep asking questions that make people look dumb, like the Gallup Poll. They ask questions: "Who are you going to vote for in the next election?" Well, people don't even know there's going to be an election. So they look stupid. How can you have a democracy if people don't know enough to come in out of the rain? You begin to have a very low opinion of the people you're working with. It's because the question isn't asked properly. If people had a choice between ultimate futures that they could experience, they will make good choices. It's all in how you ask the question, and that's your fundamental job: Asking the right question or setting up the right alternative. To elicit intelligent people.

My second suggestion is, turn the rating idea around. Don't do the things that will make the audience like you. Do the things that will make you like the audience. Do the things that will give them a good rating. Most professionals set themselves up in such a way that they have a diminishing view of the people they are working with. They like them less and less. Have less regard for their judgement, their values, their taste, their style. Psychotherapy is one of the few relationships in which the person has a chance to come up in your estimation. He gets more respect from you, the longer your relationship goes on. That's a very unusual situation. It's because the social architecture of that relationship is such that the person has a chance to look better and better, all the time, because of the relationship that you've designed. Now, ladies, and journalists and, I'm sorry to say, mass media communicators, set up a situation where they can only have less and less regard for the people they are dealing with. That's very subtle and very dangerous. So we develop this crazy idea that people are stupid but well informed. And that's the way our television essentially runs, and it's just the other way around.

The third suggestion that I have is, instead of trying to satisfy people, raise the level or the quality of their discontent. You can't ever satisfy people. The

more success and improvement you make in your program, the more discontent you will engender. Be prepared to evaluate your success on the basis of discontent, the quality of discontent that is engendered. Dave Maslow has a way of talking about this in terms of the health of organizations. He says, don't expect to go into an organization and find it without complaints. Just listen to the kinds of complaints it is getting. When you go into an organization and it's a very unhealthy organization, you'll hear complaints about working conditions--too hot in here--things that have to do with problems for me, the person. If it's a higher level of organization, where it has high order discontent, high grumbles, then you'll hear things about justice, you know, did you hear what happened over in plant A to so and so, and things like that. If it's very high, that is, metagrumbles is what he calls it, that has to do with self actualization--you know, I don't really feel like my talents are being fully utilized around here, things like that. That's a high order of grumble. It marks a healthy organization because only in a healthy organization would that even occur to anybody. Now, that's the way we've got to begin to regard our social design. If it creates high order discontent it will have succeeded.

Fourth is, the real break-through will come not when you broadcasters are able to communicate better, but when the audience is able to communicate with you. People learn and change when they are talking, not when they are listening. We need to learn to reverse the flow of communication. That will be increasingly possible with cable TV. But it is already possible to an extent that we have never tried to utilize.

Fifth, every act is a political act. If you show a woman opening an oven door on television, that is a political act. If you show a nuclear family--two adults and minor children living together--and no other kind of family, that is a political act. If you show a product which only rich people can buy but poor people want, that is a political act. Everything you do is a political act.

Now, let me try a riddle on you. I'm going to do it this way. I'm going to ask you a riddle and as soon as you've figured out the answer, don't say it, but raise your hand as soon as you've figured out what the answer it, and we'll take a minute to see how those hands go up. All right, here's the riddle" A man and his son were driving along the highway and got into a terrible automobile accident and the father was killed. The son was badly hurt, taken to the hospital and was in the emergency room on a cot. The surgeon walked across the room and looked at the boy and said, "Oh, my God, my son." Now how could that have happened? The surgeon was the boy's mother. Now, the reason that that problem is so hard has a lot to do with you. Women are the most discriminated against group in our society. We're in a situation where we've got a lot of liberation issues, and a lot more coming up. And I'm sorry to say that I, as a behavioral scientist, have been on the wrong side of most of those liberation issues until it was pounded home to me. I'm sorry to say that you're on the

wrong side of most of those liberation issues. And you've gotta get on the right side of them. We've both gotta get on the right side of them. And we've gotta do it right away. We've got women's liberation. We've got men's liberation. We've got gay liberation. I've been trying to fix homosexuals all my life. I've been trying to change them. I've been trying to reform them. I've been trying to arrest that disease. I've been a long time trying to figure that one out. We've gotta get on the right side of that issue. You've gotta stop doing what you do to homosexuals, and I gotta stop doing what I do. We've got children's liberation-- think about that one. I'm not talking about youth, I'm talking about children between the ages of five and twelve who are tired of being private property, adult toys, having to dish up entertainment for the people. There's no reason to have children now except for entertainment. They're in a tough spot and we're not making it any better. We've got the liberation of old people whom we've ghettoized and for whom we've denied the wisdom to our society. We've got a whole new bill of rights coming up. People who are incarcerated against their will. People who are sent to prisons and to nursing homes and to mental hospitals and who are not going to go there anymore because we have no right to send people, to take people and put them there. We haven't got that right anymore. We gotta get on the right side of these political issues. And these are liberation issues. There is no way to be but to take a stand on them. You're already taking one. It just happens to be the wrong one.

Now, here's what I'm going to try to suggest to you. We need educational television to become guerrilla television. We need you to exaggerate the problems in America. We need you to make the American way of life visible. Because it's the American way of life that is getting us into this awful jam we're in. It may be necessary for you to exaggerate the problem. I'm Dean of a school of environmental design, now, and I'm coming to think that it may be more important to design a traffic jam than to design a vehicle that emits less pollution. Do you follow me in that? We've got to make the American way of life visible. We've got to see what we are going to ourselves and each other. You're the people who have to do this for us. We've got to have your help. We need you to show us the garbage. We need you to show us the deception. We need you to show up all the kinds of things Bob Tschirigi was talking about this morning. We need you to deal with the hypocrisy that comes across that tube and that lives in our society. We need you to unmask, we need you to demythologize these myths that are in America now. We need you to help end this pluralistic ignorance we've got now, where we keep thinking that there's something wrong with us, with our adequacy, with our personal style, with our inability to have a decent marriage, or enjoy the job we're on. We think it's us. We've been told over and over again that it's us. It's not us. I'm here to tell you that it is not you that's at fault in this issue. You're caught in a terrible, terrible system. An environment that is crushing. A way of life that is debilitating, that has got you trapped into thinking it is you. And it is not you. It is all of us. We are all in the same boat except we don't know it. We've got a pluralistic

ignorance. It's important that television show up this pluralistic ignorance. Not just in brief glimpses. Not just a flash here and there. But all the time. We need you to be like an Andy Warhol movie, showing exactly what it's like to be here. Because we don't know and we have no way of finding out.

Now, if you're worried that that will disrupt society, relax. I hope it will. I think it needs to be disrupted. But, systems have a way of, once their disrupted, integrating at a somewhat higher level. Big changes will be easier than small ones. And we don't need to worry. People who worry too much about their own power usually don't have all that kind of power, anyway. Just try to disrupt this society.

Now, I'm suggesting you may have to move ahead without all the facts, because we haven't got time to get them for you. I'm suggesting guerilla television moving ahead on the great liberation issues that you can now identify, and the ones that'll be coming up, without all the facts. You'll have to move ahead on cogent arguments, on gut feelings, on rational processes. You'll have to move ahead on whatever you've got, because we haven't got time for anything else. We can't give you all the facts you need for a sober appraisal of the situation. I wish that were the case. We can say, though, the public is probably more prepared for daring television than broadcasters are. It's just like education. Parents are much more prepared for innovation in education than educators think parents are or educators are themselves. The public is probably ready to accept a lot more from you than you think.

Let me suggest, number six, that you make the target of television not just individuals, but groups. You see, television is so individually oriented. You always have that person alone in front of the television set. And yet, we often watch television in groups, and yet it's relatively never beamed to groups. I think you can help form groups. I think you can help form networks of families that could help each other. You could broadcast family games that would change relationships that people have with each other. That would make certain kinds of role playing legitimate. You could give message training. Not just Yoga training which is a private one-person experience. But you could teach people to give messages to one another while its going on. Ultimately you can do Masters and Johnson's sex training, in the late hours.

I was on a program with Bill Masters once in St. Louis. I was sitting between him and a well-known psychiatrist. I was the luncheon speaker. Bill had said earlier to the audience, you can't really talk about sex, even to the most enlightened American audience. You still can't do it. And then, the psychiatrist happened to say to me, during lunch, "Dick, I'm going to have to leave during your talk. I have to leave at 1:15 no matter what's going on, so I hope you won't be offended." But there were a thousand people still in the room, and it was a big speakers table, and I was talking about the future of the family, and I had just got to the

part about the future of sexuality in the family, and the psychiatrist got up from the table and walked away in front of everybody. So I thought I'd make light of it and said, "Well, I guess you're right Bill. I guess there are some people you just can't talk about sex in front of." And he turned around and said, "No, it's not that. It's when you brought up the subject I remembered another appointment I had!"

I appeal to you to show us what it is that we're really like. Validate us. Show us ourselves over and over again. We need that kind of validation. We do not need ideals or myths. We need validation. We need to see ourselves as we really are. You can use the power and the intimacy and the authenticity of television. Show a couple in their home having a fight and making up. Show somebody trying to cope with his kids. Show him telling a bedtime story. For God's sake, show us the way we are. Give us some sense of community. It's very much needed. I believe television is the only chance we have for survival. We've got to make the American way of life visible. We've got to get behind, rather than lag behind all these liberation movements. We've got to help reduce the myths, the image, the self-deception, the fantasy that plagues us, that separates us, that frightens us. We've got to end this pluralistic ignorance. We must connect people with each other, to give us a sense of community. Give us back ourselves and validate us. We've got to use the great power of this medium to aid in planning and inventing the future. If television can become social architecture, in that sense, consciously so, then the future need not just happen to us. We can make it happen.

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WEST BUSINESS MEETING

Speaker: Gary Hess, President, WEST

One hundred fifty one years ago, in a book intitled Elementary Principles of Education by Edward Thorndyke and Arthur Galts, the following paragraph was found:

" If, by a miracie of mechanical ingenuity, a book would be so arranged so that only to him who had done what was directed on page one would page two become visible, and so on, much that now requires personal instruction could be managed by print. "

That was in 1820. One hundred fifty one years later we have that miracle of mechanical ingenuity multiplied a thousand-fold by tubes and then transistors.. and with what impact on the educational system? We are, in truth, only a ripple in the sweeping tide of technological advances that on the one hand excite our imaginations and the other threaten to drown us in a sea of our waste.

We are not in the mainstream. We never have been. But we are going to be - someday. We are going to be simply because we have to be for if we aren't, who will be? If the educational establishment doesn't do it, it will be done for them and it doesn't take much imagination to see where that will lead.

But if we're going to get ourselves into the mainstream we're going to have to do it together. We can no longer afford the luxury of separating ourselves into media fiefdoms and arguing over which medium has the message.

We've spent too much time and energy feathering our own nests. It's time to stop and look around us for as John Donne said - "No man is an island" - we have to get it all together and that, my friends, is what WEST is all about. You need no further proof of the failure of separatism than to look at the attitudes of school boards and taxpayers toward educational technology. You need look no further than here in California where our Governor's very recent action cut instructional television from the body of our State College system. If we had been doing our job he couldn't have found instructional television in the State Colleges because it would have been inextricably entwined among all the media of instruction, including the Book. It would, in short, have been part of an indispensable system of Learning Resources.

When the taxpayers started buying our equipment for us many years ago they trusted us, they believed in our dreams and now they find that same hardware gathering dust in countless schools because we've been too busy fighting among ourselves to make sure that everyone would learn how to use that equipment.

Among those of you sitting here on this opening day are representatives from virtually every segment of our telecommunications profession. Each of you is part of a learning resource system which utilizes basically the same electro-mechanical tools, yet even now each of you thinks of his use of those devices as somehow unique and only distantly related to someone else's use of those same devices. It is in this natural human tendency to pigeon-hole, to categorize, that one of our greatest weaknesses lies. We forget that the one common denominator of all our collective efforts should be - must be the learner and the learner doesn't care a fig for our fiefdoms, he never has and he never will.

And so at this conference we have an opportunity to not only focus our attention on the learner but also to emphasize our similarities rather than our differences. We have an opportunity to find the answers, as Shakespeare put it, not in our stars but in ourselves.

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... WITH THE EMPHASIS ON COMMUNICATION

Speaker: Sanford I. Berman, PhD., Executive Director, International Communication Institute. Author, Consultant to Industry, and Dr. Michael Dean, Hypnotist. Reported by Frank Seeley.

Whether one agrees or disagrees with Dr. Berman's ideas on communication, one has to admit that he delivers an interesting lecture. And a lecture it was, with "show biz" overtones.

We were told we live in two worlds, the world of words and the world of non-verbal facts. The trouble is we are a verbally educated people with a culture that is verbally oriented but which responds to non-verbal orientations. Meanings, he said, are not in words, meanings are in people. Many speakers and chairmen in the next three days quoted Dr. Berman in this regard.

His thesis was that semantic misunderstanding is responsible for all hate, fights and wars. What we need to do is to learn to disagree agreeably. We must change our thinking to fit actual facts. We must look for better ways to educate. We must get people to participate.

Television must change. It must educate and uplift the common populace. As educators it isn't only what we teach but how. Utilizing television we should emulate "show biz" techniques, plus getting people to participate, for learning comes only with performance. TV has a tremendous impact. It has not been utilized by educators to its full potential.

If Dr. Berman didn't have the entire audience in his spell during the first hour, he had them all spell-bound as Dr. Michael Dean during the second hour. In fact, not only did he hypnotize the dozen or so volunteers on stage, but he also affected a number in the audience. One in particular was still out at the conclusion of the performance.

As a motivator, Dr. Berman is among the best. As an entertainer, Dr. Dean is excellent. As an educator. . . Dr. Berman-Dean leaves a number of questions to be answered. He did voice a truism, however, that "those who take courses on how to do better are usually not the one's who need it."

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BROADCASTING: WHETHER NOW?

Speaker: Mark Evans, Vice President - Public Affairs
Metromedia, Inc.

I'm very pleased that this could be worked into the schedule that has been brought through my colleagues who operate Foster and Kleiser here in San Diego. I've had a rather hectic two days. I had breakfast in Phoenix yesterday. I had lunch over Kentucky. I had dinner in Washington. I had a snack in Chicago. I had breakfast in Los Angeles, lunch in San Diego, and here I am. And my mind and my stomach got separated somewhere along the line. And communications, even though they are rather spectacular, are not complete, as far as the human anatomy is concerned. It's an honor to be here. My whole broadcasting life is reflected as I look down and see a dear friend of mine, Earl Glade, whose dad started me in this business. I gave a speech one time, as a young man, to a Salt Lake Rotary Club. He was President of the Rotary Club, and he owned the radio station, and he interrupted a pre-legal degree with the enticement of being able to broadcast on that very powerful media in the inter-mountain west. My other credentials I am very proud of is that Mr. Frank Pace and Mr. Macy have asked me to be a commercial advisor to them. And we are proud of the fact that we have given, I think, close to two-million dollars now, including the station in San Francisco, because we believe in what you're trying to do.

I thought you might be interested in a little of what's going on in Washington. Things don't change too much from one administration to another. We're either looking back or looking forward on an election. Mr. Muskie has been told he resembles Abraham Lincoln and he spends his weekends splitting rails. Senator McGovern has definitely given up the Arab vote in South Dakota. He is recommending the sale of airplanes to the Arabs, the F-111 and the C5A. Secretary Laird has declared that there are no ground troops in Laos and we have every right to be there. Civil rights is always an interesting topic in the nation's capitol. The newest slogan for civil rights exponents is, "bigotry hasn't got a Chinaman's chance." We have a new factor in Washington, I see our father here. He'll be interested in knowing this new priest we have in the Congress of the United States. I found out how he was elected. He had a bumper sticker, a very powerful bumper sticker that read: "Vote for me or go to hell." We have a whole new production enterprise in Washington making watches. I know you are aware of some of them. The famous Agnew watch has now been relabeled. It's now called a gift bearing a Greek. Mr. Meany's watch is still telling time-and-a-half. Mr. Humphrey's watch never runs down. Mr. Goldwater's watch is still running backwards. Martha Mitchell has a watch. You don't see what time it is. It tells you. A new factor in government is Mr. Ralph Nader. And between Ralph Nader and St. Christopher, most of us are afraid to drive any kind of an automobile. I'm told, after the Catholics down-

graded St. Christopher, that five million Catholics went out and got their brakes fixed.

There was a slight hold-over from the last administration. You remember the man who flew south with the birds? In the last few days in office as President, he was having a little trouble sleeping one night, and he reached over in the darkness of the night to take a sleeping pill. After it had gone down, he realized it wasn't the right size or the right flavor and he became apprehensive, as anyone would. He turned on the light and discovered that he had swallowed a little pellet right next to a little box marked Department of Agriculture. Now that little white phone that every Cabinet officer has in his bedroom rang for the first time in Orville Freeman's bedroom. At almost the end of his days in office, he picked it up frightened and said, "Mr. President, what may I do?" At three o'clock in the morning he said, "Orville, what are these little pellets you sent over to the White House?" He said, "I don't know what you're talking about, Mr. President." He said, "These little pellets that look like pills, what are they?" He said, "The only thing I can think of, Mr. President. They might be some pellets Mrs. Johnson wanted sent over for her African violet." He said, "Great Caesar's ghost, I've swallowed one of them. Are they poisonous?" He said, "Oh, no, Mr. President. We're very proud of that in the Department of Agriculture. Believe it or not that's a ton-and-a-half of fertilizer condensed into that little pellet." He said, "My only suggestion is to be careful about what you say in the next few days."

Washington is a city of diplomacy. I think the best diplomatic story I know is about the fellow who went into the western hardware store. You youngsters won't know what I'm talking about, but let me describe. A half a stove pipe elbow, when you had the old pot bellied stoves, that stove pipe that went up into the ceiling bent and went into the wall, and that's called a stove pipe elbow. And this great big bruiser came in and said to the young man in back of the counter, "I want a half a stove pipe elbow. I'm in a hurry." The young fellow said, "I don't know what you're talking about." He said, "Buster, I don't want conversation, I want a half stove pipe elbow, now!" He said, "Sir, I still don't know what you're talking about." He said, "About thirty seconds from now I'm coming over that counter and I'm going to wipe up the back of that whole floor with you if you don't get me a half stove pipe elbow. I don't have time for conversation. Pronto!" He said, "Sir, I'll go ask the manager if he knows what you're talking about." So he went out, not knowing this great big bruiser is right behind him. He said, "Boss, outside there is the nastiest, meanest, ugliest S.O.B. ever walked the face of the earth. He wants a half a stove pipe elbow." At that point he looked around and saw this great big hulk hovering over him. And he said, "Oh, and this lovely gentleman wants the other half."

As you will learn, in Washington, as I'm sure many of you have, the art of politics is the art of compromise. And there's no end to the need for com-

promising. I have a note here. I don't think I've ever spoken following a wine tasting party. And I didn't know whether that would help or hurt the talk. But maybe this will follow into the theme of that which preceded me. And it also ties in with the compromising of most politicians. He writes, 'Dear friend, I had not intended to discuss the controversial subject at this particular time. However, I want you to know I do not shun a controversy. On the contrary, I'll take a stand on any issue at any time, regardless of how fraught with controversy it may be. Now, you've asked how I feel about whiskey. Here's how I stand on this question. If, when you say whiskey, you mean the devil's brew, the poison scourge, the bloody monster that defiles innocence, dethrones reason, destroys the home, creates misery, poverty, yes, literally takes bread from the mouths of little children. If you mean the evil drink that topples the Christian man and woman from the pinnacles of righteous living into the bottomless pit of degradation and despair, shame and helplessness and hopelessness, then, certainly, I am against it with all of my power. But, if when you say whiskey, you mean the oil of conversation, the philosophic wine, the ale that is consumed when good fellows get together, that puts a song in their hearts and laughter on their lips and a warm glow in their eyes. If you mean the Christmas cheer, the stimulating drink that puts a spring in the old gentlemen's step on a frosty morning. If you mean the drink that allows man to magnify his joy and his happiness and to forget, if only for a little while, life's great tragedies, heart breaks and sorrows. If you mean that drink, the sale of which pours into our treasuries untold millions of dollars which are used to provide tender care for our little crippled children, our blind, our deaf, our dumb, our pitiful aged and infirm; to build highways and hospitals, schools. Then certainly, I'm in favor of it. This is my stand and I will not compromise."

The world we live in has shrunken, shrinks hourly. And as the world eavesdrops, myself and you probably included, on a conversation with a man in the moon; and as we hear sounds from Mars, millions of miles away; I think I realize for the first time what God hath wrought. Telecommunications has certainly come a long way, from a very chilly December night in 1901 in Newfoundland, when an Italian by the name of Marconi picked a signal from far distant Cornwall, England. And I'd like to reflect for a moment on the many things that have happened since that momentous hour in the history of this universe.

Today radio signals sent back pictures from Mars thirty-five million miles away. And with the help of radio communications, I thrilled as we nursed back a crippled space craft over two-hundred and forty-five thousand miles to a safe splash down through the vehicle of radio communications. I must confess to you, I'm almost more impressed with the communications story of space, from the moon and from Mars, than I am with their getting up there. Because I almost heard the crunch of a boot. I work very closely with Neil Armstrong. We're on a Presidential commission as you heard, the Peace Corps. And I never cease to be amazed. When I'm with him I keep my eye on his right foot, for some reason or other, and realize that I accompanied him to the moon. And the other

day, I saw a man horsing around hitting a golf ball. I saw him. I heard him. And I think, again, I knew what was meant by what hath God wrought. I guess some automobiles are sold today without a radio. Though I can't think of any that I've seen in recent years. Radio's have become so standard that we kind of take them for granted. In lesser developed countries (as you've heard, I've spent a good deal of time in Africa) it's not unusual to see a man on a bicycle with a portable radio. It isn't at all unusual to see a man in a parochial canoe, the means of transportation hasn't changed since the dawn of time. Yet, the man's sitting there paddling along with a transistor radio. Bicyclists and river oarsmen. I think Al Smith put it pretty well when he said, "you ain't seen nothin' yet!" Think of it. And it's in its infancy. They now have laser beams. Engineers tell us that laser beams can be produced no larger than a grain of sand. And this technology will be needed for development of transmission paths capable of carrying millions of voice circuits as requirements for developments toward the end of the century. Today radio engineers have so expanded this capability that electronic communications has become absolutely essential to all of us. I don't think any of us fully realize how dependent we are upon it. The other day when that thing broke loose in San Francisco, the earth shuddered. What was your first impulse? Grab for a dial. We do it almost automatically.

Television and radio like the automobile and the airplane have become integral parts of modern living. I was reading in a history book the other day, which I like to do to not only look back but look forward. And I'm sure you're aware of this. The Treaty of Ghent ending the war of 1812 was signed on Christmas Eve, 1814. Now the bloodiest battle of that conflict was fought after the treaty was signed. Only because the news had not been received. Now there's no chance for any kind of a repeat. Now communications tells us before it happens. Saturday morning they told us of an alert that really hadn't happened. We learn who's elected, sometimes, before we even vote, in certain parts of the country. I think the point I'm trying to prove is that technology knows no limits. I think anything is possible. I don't challenge anybody. I've often thought of that wonderful poem, "If radio slim fingers could pluck a melody from out of night and toss it o're a continent or o're a sea; if soft white notes of a violin can be tossed across cities din; if songs, like crimson roses, can be plucked from thin blue air; why should mortals wonder if God hears prayer?" Somehow, prayer doesn't have the spectacular that it used to have. It's a normal kind of thing, communications being what they are in reality today. We, my point is, technology really doesn't know any limit in my mind. Satellites for direct-to-home TV broadcast is no longer a major design challenge. It's here. It's possible. The prospects, ironically enough, are brighter for the emerging nations than they are for us, because they can, overnight, achieve national television coverage. And it has taken us twenty years to achieve it.

By 1980 it is projected that we will have no less than sixty television satellites around the earth worth a billion dollars, orbiting synchronously. And most of these will be used to distribute programs to special stations. A few years ago I had a magnificent opportunity--I'm on a board for Bonneville and they have a short-wave station, one of the few in the country--and we went out to the Hughes Tool Company. And there sat through several days of projections of tomorrow. And I tell you, a broadcaster who came away from that other than wide-eyed and bushy-tailed was dead. They took us into one room and actually clad us as though we were going into an operating room with gloves and hats and masks and the whole bit. And there, very unceremoniously placed on the floor, equidistant apart, were seven tripods. They are all now in orbit. And I heard a man say, as he projected the future, and I accept anything anymore, if a scientist tells me, that the day could conceivably come that these satellites circumnavigating the earth will contain all of the information ever written. That the libraries in the sky will contain everything ever written on brain surgery. And a brain surgeon in Kenya could push a button and bring all the knowledge of brain surgery to his own attention. Libraries in orbit. There's no limit on technology. Today's and tomorrow's challenge is not technology. Today's and tomorrow's challenge is how are we going to use it.

My life span, and I hate to feel like a senior citizen, but the facts are, I guess I am, ranges from the crystal set when we used to hunt and pick with that little cat's whisker on that crystal to try to bring any kind of sound, and thrilling when we heard music or the spoken work--my life span goes from that to the laser beam, which is almost alpha and omega. I've seen and I've heard moments of glory through the ether waves. I've also heard and seen some that I'd like to forget. Commercial radio, let's face it, due to some miscalculation by our governmental leaders, in their eagerness to get competition, I think have oversaturated the spectrum. Competition has hurt quality radio. Overcrowding has weakened quality broadcasting in radio. The point being, I think, because of competition, broadcasters have almost lost their identity. I shudder when I hear great network stations playing hard rock out of desperation for audiences. I have nothing against hard rock. But it just seems incongruous for them to be playing music.

Attempting to find a niche, wierd things are heard by broadcasters. Music and news just about wraps up today's radio. TV also flounders. I'm talking about commercial radio and commercial television. Flounders under pressure. Other than news and some specials, documentaries, there isn't much knowledge disseminated through these powerful media. And as a result a large vacuum looms. A large vacuum looms, and when vacuums are created, vacuums have a way of being filled. I believe the time is now. I believe the hour is here for the commercial broadcasters to learn who they are. I think the time is here when public broadcasters must learn who they are. My church teaches me three

things that a religion should teach you. One, where did you come from. Two, why are you here. And three, where are you going. And I think that barometer could very easily be applied to broadcasting.

Now we differ in many ways. We have different philosophies, different concerns. But I would imagine most of us would agree that in this day and age there is nothing more crystal on the horizon than education. There was a front page article in the New York Times this past week that frightened me quite a bit. It stated: "Colleges all over the United States are cutting services. Some are reducing faculties. Some may close." I don't think there's any doubt in anybody's mind there are too few classrooms. I don't think there's any doubt in anybody's mind that faculties frequently are inadequate, particularly in the areas where they need their talents most. You don't have to talk long to a governor, or to a mayor, or to a school superintendent to find their frustration in trying to satisfy the needs of America's youth in educational pursuits. The President only today issued a statement that no man or woman in this country who wants an education must be stopped because of finance. Parochial schools are desperate, private schools are struggling. We're on a collision course with chaos. Is there any doubt in your mind that the gut issue today, when you get right down to it, is education?

Now what is the answer? Is it money? I don't think so. As a kid I used to go gopher hunting. Some of you may not have had this pleasure. We used to take five gallons of water and dump it in the gopher hole. And the gopher would come up--he had no place else to go except drown. But most of the time you could look around and find another hole that water was coming out just as fast as you were pouring it in. And I frankly think that money will do the same thing, if you pour it in the same way we're now trying to answer the question. More money down the educational gopher hole.

In my estimation the answer is a new direction. I don't think education has changed appreciably since Aristotle. The same techniques are used. With all the devices we have that Aristotle didn't have. Marconi had the answer, and so do we. I think definition is what we need. I think the commercial and the public broadcasters alike have got to define their goals. We are currently aping each other. And both are failing as we infringe on each other's areas. A commercial broadcaster transmits a rather hairy signal trying to walk and to serve God and mammon. Trying to satisfy the ever-changing opinions of our great white fathers on M street in Washington. Trying to satisfy the eager-to-criticize vocal members of Congress who seek and get headlines by chewing up the electronic wing of the fourth estate. And at the same time trying to satisfy the court of last judgement, the guy who chooses what he will view or hear. And let us not forget--we can't forget it, you can, but you're getting into this area, too--all this added to the man who pays the bill based on how many people turn the dial to him. Do you wonder at the frustration? Do you comprehend the

reason for confusion? Can you saavy the wheel spinning? Do you see why we have both lost our identity?

Now the pie in the sky idealis^t can philosophize, he can plan, he can threaten, he can cajole, he can criticize all he wants, but the name of the game is audience. I happen to feel the public good is served well when poor old Joe Citizen is permitted a few hours to forget his problems and trials through beautiful and sometimes not so beautiful but through deserving escapism of entertainment. Now with incessant pressure to educate and to entertain, neither happens, and we stand accused by all sides because neither of us, commercial or public broadcasters know who we are.

The public broadcasters have fallen into a similar position. I must tell you from some inside knowledge that private foundations are shaking, and "Sesame Street" is wearing out from the standpoint of public information, and they're looking for new goals and new worlds to conquer. Financing for public broadcasting is in a very shaky position. They're eager to justify their existence. This naturally leads public broadcasters as it does those who are in the commercial world, to quasi-entertainment. Public broadcasters lean toward that. And they're trying to walk both sides of the street, and they, too, become schizophrenic, not knowing who they are. May I ask you, why in the name of sanity, why can't we accept life's realities and work in tandem? Let us entertain. Let us report the news. They both cost a lot of money. No matter how much you spend, as public broadcasters, on hard news, your're going to run hard and you're not going to stand still, you're going to go backwards. When I left the network and went into independent broadcasting, I had a slogan that I tried to infuse into every broadcast manager's mind: Don't try to out network the networks. It is my honest opinion that if you make an abrupt turn, as public broadcasters, and really roll up your sleeves, and get your teeth into meaningful education via television and radio that responsible commercial broadcasters will go into an all-out support of your efforts. Now, paranthetically, let me add, that by the time of the next NAB convention you're going to hear this put into actual words, because I've been told that that's going to happen.

Suppose, with your sleeves rolled up, you attack the pre-school child. You and I both know that politics in Washington can't do it. Head Start was a noble effort, but it failed. That was not successful. But through TV it could be. There are literally millions of people in this country, youngsters and oldsters alike, who need pre-school training. High school drop-outs could be reached. With you producing the answers and commercial broadcasters producing the promotion. And promote like mad to make sure that everybody's aware of what's available on educational broadcasting. Rise up now. And I urge you to do this. Because CATV is becoming up for grabs, and it's already getting a little bit sticky. In my humble opinion, every CATV channel that is not now taken should be dedicated to educational television broadcasting. With the proper use of all these various

channels of communication, there's no doubt in my mind that illiteracy could be eradicated. It would disappear. School superintendents, I happen to be very close to the superintendent of Washington, and this man has a monumental problem. He's crying for help. And you can help provide some of that assistance.

Whatever happened to educational broadcasting? I have an article here that appeared in the March issue of Space and Aeronautics, by Hermann Lowenhaar. And I want to show you how public broadcasting has lost its way. Educational TV got its first impetus in 1956 when the experimental Hagerstown program started. That's neaby the town I live. It started in Washington County, Maryland. With a million dollar grant from the Ford Foundation, three hundred thousand in equipment donated by the manufacturers. The program's aim was to use cable distributed television to provide uniform high quality instruction for all elementary and secondary grades in all subjects. Skilled instructors were televised. Each teaching his own specialty. And county-wide distribution brought them to each classroom. During television lessons the regular teacher served primarily to monitor behavior and illicit class response. The results were phenomenal. Even though TV instruction accounted for only one-third or less of the total instruction time, standard achievement tests showed that children with IQ's of 57 to 89 gained thirteen months in a twelve month instructional period. While a control group that had to plod along without the TV programs gained only six months. A difference of a hundred and seventeen percent. For IQ's of 90 to 110 the gain was fourteen months with TV instruction compared with eleven months without, an improvement of twenty seven percent. Even the bright students with IQ's of 111 to 140 showed a marked improvement; a gain of twenty-five percent with television instruction. In 1961 a program of TV instruction was started in American Samoa, and you'll be interested in knowing one of our FCC Commissioners was the father of this program. With six channels of open circuit TV bearing almost the entire burden of education, in this case, \$853,000 was spent on program development. The results, once again, have been startling. A meteoric climb for the territory as a whole. Now these figures suggest why there has been so much Congressional interest in educational television. Why the Corporation for Public Broadcasting was created by act of Congress. And why the Public Broadcasting Act of '67 called on NASA and the Department of Health Education and Welfare to develop the programs and technology for wider utilization of television as a national resource. Today U.S. expenditure in public elementary and secondary instruction now stands at 26 billion dollars a year. If the Hagerstown programs averaged thirty one percent increase in achievement could be repeated on a national scale, far less money would suffice to maintain the educational achievement level. Or, if the current level of expenditure were maintained, a much higher level of educational achievement would result.

They've analyzed these possibilities under a hundred thousand dollar contract for NASA Lewis. Its study hypothesized a natorwide educational television

system with a color set in every one of the nation's one-million-seven-hundred-thousand classrooms, a large rooftop antenna with pre-amps and converters for every school, a six channel ten billion dollar satellite in synchronous orbit over each. Capital and operating costs for this system, including programming, satellite replacement, receiver maintenance, and every other conceivable expense, would be 3.4 billion over a fifteen year period, or two hundred and forty seven million a year to upgrade the achievement of 44 million students by an average of 31%. The cumulative benefits at the end of fifteen years would be eighty-four-billion in terms of educational programs that could become superfluous. HEW's Head Start program, for example, now costs 338 million dollars a year and serves y 652,000 students.

As I told you earlier, I serve as an advisor to Frank Pace and to John Macy. And there will be an announcement about the NAB convention on action to be taken along these lines. And I hope you'll be in sympathy and prepare yourselves to really pick up the gauntlet and run. When educational television and radio gets back on the original track to educate, to the original mandate, I don't think you'll have any more money troubles. Congress can't resist. Congress does resist because they fear politics in educational television. And you get hurt by both sides and as a result the money dries up. I have no doubt that money restrictions will disappear. Commercial broadcasters, I further have no doubt, will become your greatest supports, will become your lobbies to get your money. We'll become your cheer leaders.

Ladies and gentlemen, the alternatives are rather simple. Both commercial broadcasters and educational broadcasters, if we don't make some changes, will wheel-spin ourselves right out of contention for the public attention. Let's let the public be served with entertainment. Let's let the public be served with knowledge in the way of tomorrow. Let's let the nit pickers and dreamers and confusers be damned.

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THE ABC OF CABLE TELEVISION

Speaker: Donald V. Taverner, President, National Cable Television Association.

I'm delighted to be here. I see a great number of friends and erstwhile colleagues from public broadcasting and from instructional television. I certainly had the thought that I might bring you a pretty good sermon, but as I see the time problem here, I decided to dispense with the sermon and become very pragmatic, frankly, because the problems that face us, jointly as educational broadcasters and as Cable television developers, are pragmatic problems. The philosophical problems are clouded very much by the pragmatic concerns. So if you will bear with me, and if I become a little hard nosed, I hope you'll forgive me. But I'd like to address myself rather directly, after I've taken a half hour to tell some stories, to the pragmatic problems that really face us. Because the situation is more of an opportunity, I'm convinced of this, much more of an opportunity, than it is of a definition of problems as such.

I have a very high regard for Mark Evans, both as a person and as a broadcaster. But he concerned me greatly in his talk last night, because I go back to about 1953, really, in the educational broadcasting field. It would almost seem to me that Mark was suggesting we take a seventeen year turn and go back to the original days when the commercial broadcaster, fearful of what might happen in dissipation of audiences, etc., proposed that educational broadcasting limit itself only to stereotype systematic instruction. This was suggested to us again last evening, some seventeen or eighteen years later. So it also suggested that cable confine itself only to instructional concerns in education. Now I'm sure that this would be a tremendous protective device of the existing broadcast industry, because they are threatened, less by educational television, I fear, than by cable. But nonetheless, threatened by both sides. I will suggest to you, that if we're going to do what we're here to do, and that's to serve the public good, and certainly our motives, however illustrated, are the same in that regard, that this would be a far cry from the opportunity and challenge, in terms of what the American people need in broad band communications opportunities and experience. There's no time to perpetuate mediocrity or to hold the status quo. But we must move forward into a broader concern of telecommunications, broad band communications, both designed, certainly for free private enterprise at the same time designed to do what the Communications Act of 1934 was designed to do, and I'm not so sure we've fulfilled it.

Having said that, I want to stop just a minute, if I may, and pick up Mark's comment of last night when he said, theologically, (I can't get away completely from a sermon), he was concerned with where we came from, where we were,

and where we were going. Unfortunately, I know where I came from, I'm not awfully proud of it, we'll put that one aside. I know where we are and I'm terribly concerned about where we are, in terms of where we may really be going and where really we ought to go, in terms of the total communications picture in this country but internationally as well.

There were a couple of fellows up in Maine, back in the thirties, when at the Skowhegan State Fair they used to bring around these hot air balloons, these lighter than air balloons, and you could get a ride for three dollars around the fair grounds. Two fellows, who should have known better, paid three bucks apiece for a ride, and they went aloft, and something went wrong, and they lost a couple of sand bags, and they went up higher than they should've gone up above the cloud cover, and the wind got them and they began to drift out. And when they finally got below the clouds they were over water and it was obviously the Atlantic Ocean. They were completely lost, so they began to shuffle and wiggle, and worked it until they finally got it back toward shore over an area they'd never seen themselves before. Nothing there but one sole farmer plowing. So they finally worked themselves down, not daring to let go of too much, to where they could see the farmer. And they yelled, "Where are we?" The farmer looked up, without a smile and said, "You're in a balloon, you damned fools." Well, this is about the size of it, frankly, at this point in time--where are we? We're in a balloon, you damned fools, and we very well better find whether we're going to let gas or drop sand bags. Because either way it goes, the results are going to have a very specific effect upon the American people.

I'm also reminded of the minister of the Baptist church in East Jacksonville which is about three miles beyond Machiasport in Maine, who on a Sunday morning before the sermon said, "Now when the collection is taken this morning, I'm going to ask each of you to put an extra dollar in the plate so we can buy a new chandelier for the sanctuary." After the service was over, the congregation filed out and shook hands with the pastor. Eben Jones, who was one of the town characters, and a bit of a dissident, stopped by and he said, "Pastor, I think you ought to know, I didn't put no dollar in the plate." And the minister said, "Well, Eben, why not?" And Eben said, "I got three reasons. One, I ain't got no dollar. Two, if you bought one of those chandeliers, we ain't got nobody in the congregation can play it. And three, if you're goin' throw money around that way, you ought to fix the goddamned lights."

I told that story to Dean Burch at the Commission, not too long ago, and ended up with the very same phrase, "If you're going to throw rules around that way, you really oughtta fix the lights." This is really somewhat symptomatic of what we're concerned with.

Let me get to the nub of the problems, since time is of such a factor. This is a highly complex matter, as you well know, and an attempt to overview it will be very difficult. So I'm going to do away with platitudes. I'm going to try to

come to the nut of the matter. CATV, community antenna, master antenna, is an industry which you all know got its start in very simplistic terms. In the hills of Pennsylvania, and the green forests and mountains of the Northwest where people couldn't get a television signal because of the physical obstruction. But as it developed, it became obvious that what could be done in sophisticated communications, with this very simple device, when one thought of the computer, when one thought of multiple channels as against one open broadcast channel per each of eight hundred television stations, the broadcaster naturally became concerned. He began to be threatened about the potential of cable perhaps overshadowing commercial broadcasting in its open form. The FCC became very concerned because they were courted by educators, by civic leaders, to do something about opening broad-band communications in the decade ahead. As a result, it became a Pandora's Box, and the FCC, on occasion, attempted to lift the lid of that box. But when they saw what was inside, they closed it again. And for every rule, over a period of twenty years, or every proposed rule, given by the FCC, on cable television, there is another rule, and they go side by side, that negates it.

On two separate occasions the Supreme Court has overruled, in an effort to try to bring some sort of orderly regulation and development to cable television. But the established broadcast system has fought hard and fought well. As a result the industry has become the most regulated unregulated industry in the country. Regulated, unregulated at the municipal side of the franchises. Regulated, unregulated at the state side from the PUC and the legislatures, and regulated and unregulated by the FCC at the Federal level, so that its potential has been lost in a bunch of gobbledeegook.

Now, light began to appear on the horizon about eighteen months ago, when the FCC under its new chairman, Dean Burch, began to take what appeared to a 180 degree turn to starboard in so far as cable television was concerned. They begin to show signs of opening the industry. The base problem frankly, (and I must say to you just as directly as I can, it's as much your problem in terms of what you want to do and should do, and I'm with you in this regard,) it's as much your problem as it is the problem of the cable television industry.

The freeze imposed on the cable television industry two years ago has brought the industry to a virtual halt. There are large cities, a hundred large markets, from which distant signals are prohibited, and therefore there is essentially no cable television in the large cities. There is an exception in New York and Los Angeles. Very little cable. Ninety percent of the population cannot have cable television in any kind of sophisticated form because of this rule. You heard from Holt Littleberger this morning, a moment of truth is at hand, and that moment of truth will come starting March 11th with these hearings, and continue through until a decision is made by the FCC to whether or not they will open the cable television industry. And that decision is promised to us by April 15,

or May 15 in that area. Had I not more confidence in Dean Burch, had I not know what I know, I would ask what year. But I have every hope that it will be this year. That they will come to grips with the problem and do something about cable television. If the decision is not to open the large markets, not to permit importation of different signals, not to permit the release the industry need, then you can forget all you've been talking about here in cable television, and what it can do significantly for education and for the public good. The industry will have to continue its pragmatic pedestrian, rather mundane way of servicing the current, existing broadcast industry, commercial and educational. If the FCC, based on the reply comment and these hearings, and pressed upon the Congress, I might add, decide to open the industry, to whatever degree, then the potential of broad-band communications and sophisticated significant educational opportunities via cable in multiple channel form not only can become a reality, but will become a reality. It must happen. As the old saying goes, when something has arrived it has arrived and you had better deal with it. And deal with it positively. Therefore, any effort on the part of any of you to do anything but open the industry will not be in your interest, certainly not in our, and I would submit to you, not in the public's interest, at this point in time.

I don't think this industry can survive another two to three years of the freeze, economically. There are great myths about the economics of cable television. And those of you who have wide eyes and great dreams about getting money from cable television had better read financial reports--had better do their homework very well. For the day of the entrepreneur and the day of the easy dollar, and fast capital risk investment that will bring you back a gold mine, has gone by. The proposals before the FCC now, which have little or nothing to do with opening the industry, but are in regards to fees, funding and whatnot, would add automatically no less than 13% to the cost of doing business as the industry stands right now. The industry returns are not in that kind of an area.

All right now, let's get to it because I know you have other things that you want to consider. I'd just like to say this. I think we have to rise above ourselves. And I mean by that, both the cable industry and the educational community to include educational broadcasting. There is greed showing on both sides. Naturally the cablecaster who has made a substantial investment of his money or his time and his energy in this business, is fearful of change. But I've found that most of them, certainly in the leadership of the industry, are enlightened to accept and use change to significance. But there's a reluctance to change. On the educational side I must say this, it may not be pleasing to you all, but I'd be less than honest with you and with myself if I didn't. Any effort to try to find a quick answer to the funding of educational broadcasting and educational broadcasting stations by the taking of franchises for that purpose, would be greedy, and not in your interest, and not in our interest, and again not in the public interest. An educational television station of which I know a great deal, that has all it can do to muster somewhere between three hundred thousand and

and three million dollars to operate each year, to find the funds to make an investment in a cable operation which, if it's of any significance, it's going to go into six good figures and maybe seven, and then have to operate a business which has become as marginal as this business, would rob the public of the benefits of the development of broad-band communications and enlightened educational technology, because the purpose is to support the existing educational television stations. And it couldn't go beyond that by facts of life. You would hold back your own desired development in telecommunications by that process. And I have to tell you, we will not accept that within the cable television industry. Not only because we also are somewhat selfish, but because we can never develop cable television to its broad-band utilization, if its avowed purpose is to use a commercial source to support a non-commercial operation. And I'd like to have you think about that. You don't have to agree. But don't be found out in front of Macy's window with your pants down around your ankles and wonder where the draft came from. Because its economic facts of life are in this.

I would applaud, and I think I speak diligently for the industry in this regard, certainly the development of proper numbers of channels for education for broad-band communications in terms of the public good and public service, and I don't mean black drape stuff, I mean all the way through--the proper development of the grid system to include proper educational kinds of concerns. But there, again, we must rise above ourselves, because arbitrary figures designed at this point in time, to an industry which is still embryonic, and frozen, will not supply an answer. You can lock yourself into where you find there is a freeze in the other direction. Because if you demand and accept and receive channels beyond your ability to program significantly, then you will take a very precious commodity that the decade away to the American people, and have frozen it to no good end, to the point where I can almost promise, based on history alone, that the FCC will turn and freeze you in order to unfreeze that which you have frozen yourselves. I say that not as a protective device but what I want to say to those who want channels for education, and I want channels for education, believe me, and want channels for cultural concerns, who want channels for public affairs, who want channels for social concerns, who want channels for religious concerns, we are with you. But please tell us what you plan to do with them before you lock up these kinds of potentials. Arbitrary figures, 20%, 50%, one community, one area, 20% might be channels they couldn't possibly activate for a period of many years. In another community 20% would be totally inadequate for their given needs. Somehow this has to be done thoughtfully.

Now I've engaged in labor negotiations for ten years. And let's not be guilty of what often happens in labor negotiations. When I sit with a bargaining committee, in labor negotiations, the credibility of those negotiations start with the first statement by both the union and by the management. And if the negotiations start at a ridiculous point, the credibility of those negotiations is gone. Then we know we're in for a long costly situation which nobody wins and the public pays for.

My plea to you, as educators and educational broadcasters, is don't give away a thing. You deserve what the public needs. But don't be naive and come in with kinds of demands that will create a lack of credibility in the eyes of the FCC, the United States Congress, the cable industry, the broadcast industry, in what you want. Because that can only end up in a situation where, again, neither we win nor you win and the public is bound to lose. I'm asking that we might get together. You know, I'm a little frustrated, on occasion, I'm in a male menopause, I suspect, but I am a little frustrated on occasion, because when in my years with educational broadcasting I saw foundations, institutes, educational institutions come up with studies on educational television, instructional television is a particularly good area to do this in, I might add, where they go back to the origins of the Western man, and come down the Rhine River and come up with a report that takes off at fifteen miles an hour and you don't know whether it crashes or it's lost in the clouds because that's the last that you hear of it. Now we're faced with the same damn thing in cable television today. The kinds of studies, the kinds of reports, the kinds of research that's being done, are not based on knowledge either of the problem or recognition of the opportunity. They're based on some one seeing a good thing in which to do the study. I deplore that because it's held back educational television, its held back instructional television for years, and I'll be damned if I'll be a part of holding back cable television.

We need to be closer together. When the NAEB files, I want to be able to support them. When we file we want them to be able to support us. When we come to a point of disagreement, I would like to see it face head-on reasonably, intelligently, and with all the aggressive defense and offense that's necessary to come out with the right thing. And I think any move that creates a schism between public broadcasting, educational television, instructional television, the educational community and cable television will serve to both our loss. It's a plea for cooperation, because what can happen to cable television is not blue sky.

I was on the Georgetown Forum on television a while ago with an old friend, Ken Cox of the FCC, who's an avowed opponent of cable TV. And they fed me one. Bob Lee turned to me and said, "You know, Don, with all the blue sky talk of inter-community activity and action by cable television, all the action of two-way systems, buying, shopping by television, burglar alarms, meter reading, and facsimilie newspapers," he says, "I have been in communications for two decades and I have yet to see a facsimilie newspaper." And I said, "If you've got ten minutes after this is over, come down to my office and I'll show you three from Japan where they don't have an FCC."

Now this kind of exchange is healthy, and I don't mind the nose knocking at all, in fact I rather enjoy it, as long as its done without emotion and objectively. And I am convinced frankly, that the industry will receive some relief when a decision is made in April or May. I would also suggest to you that you are going

to receive some relief when the industry is opened in April and May. Because what we're talking about, what we want to do can't happen.

This industry that is considered to be so affluent by so many, is in a very difficult position because of this two year freeze. The supplier, the manufacturer, of equipment for cable television, research and development in cable television has turned in and in and in, as the market has grown smaller and smaller and smaller for marketing or sales. To the point, where we're going to find out if this keeps up for much longer, you'll find companies merging, companies folding, and large corporations picking up as a sideline cable television kinds of technological equipment. When we need two-way communications, audio and video, when we need computerized data access opportunities via cable, so we need all these kinds of things. The answer is, that with five million four hundred thousand homes cable has now you cannot begin to develop from an R and D, a production, a manufacturing, a supply, and a sales point of view, the kinds of money that will make possible the development that you need and the public needs in general. It will take at least twenty million subscribers.

We are now at five point four million. If the FCC, and I will say with some confidence, when the FCC opens the industry, you'll see that twenty million come rather rapidly and well beyond that. That provides the economic capitalization base from which this industry can move forward and offer to you, as educators, and offer to the public and those concerned with a new approach to diverse sources of programming via television and via communications the kinds of opportunity. Again, I have to be selfish and say, we will not get out twenty million subscribers, for the broad base economic development, if the industry is turned over to non-profit organizations to operate it. Think about that.

You don't have to agree, but do remember Macy's window in the windstorm. Because facts of economic life are less easily changed than revising the King James version to the American Revised Standard version. And I think you have to take these kinds of things into consideration.

I am very, very optimistic. I'm not looking for the world on a stick. I think the opening of the FCC will come. It will not be all we need or want, but it will do what needs to be done to move the industry forward. I hope it will be hand in hand with what the public broadcasters, the instructional television practitioner and developer, and the educator at the elementary, secondary, higher education and general extension kind of education, needs. I think I can tell you that the industry will favor that kind of development provided that you are looking at it from a viewpoint of what it will do for the public in terms of broad-band opportunity and not what it will do for you in terms of decreasing your deficit by forty percent. And I would plead with you not to have that become a hang up with you.

In closing, let me go back quickly because I have run over a little bit. I will hang around the instructional television workshop this afternoon. I am reminded, though, in terms of all this confusion, of the young fellow up above Whitipetlock between Whitipetlock and Vanceboro, Maine--if you don't know where these are, you sure as hell shouldn't be in education--these are tremendous metropolises that dominate the pucker brush up there. But this fellow had married this young lady, he was nineteen and she was eighteen, and they had a farm that didn't amount to an awful lot. There were more rocks than there was grass, there was no electricity, they obviously didn't have cable television, and he had to work like the very devil just to get body and soul together for the two of them. But in due time the young lady was expecting, and he came in from the field one night as it was getting dusk, and she was ready. So he got the old pick-up which only went on three cylinders, and he tore down to Vanceboro, and there was no Doc, and he went down to Mattawarmkeg and there was no Doc, he tore up to Macwarhoc and there was no Doc, he tore down to Passadumkeg and there was no Doc, and he finally got to Millonocket and he did find a doctor. He put the doctor in the cab of this truck and they went speeding back as fast as they could go, up to the little farm back in East Whitipetlock. And they walked in and the Doc said, "Light the lantern son." And he lit the lantern. And the Doc says, "Yip, we got work to do here tonight. Now tear all the sheets off that bed and make them into strips. Get some good hot water boiling on the stove. And hold up that lamp." Well, about twenty minutes later the Doc turned around and said, "Young fella, you should be proud, you are the father of a bouncing baby--oops! Hold up that lamp!" Another ten minutes went by and the Doc turned around and said, "Son, you should be doubly proud. And the state will be proud with you. You are the father of two bouncing baby--oops! Hold up that lamp!" So another five minutes went by and the Doc turned around, wiped his hands, and said, "Son, I'm really proud of you. In thirty-eight years of medical practice this never happened to me before. You are the father of three, healthy, bouncing baby boys." The young fella still holding the lamp in his hand, standing there in a state of shock looked at the Doc and says, "Doc, you don't suppose it's the light that's drawin' them, do you?"

Well down at 1919 M Street in Washington, which is the home of the FCC, there is a light in front of the door that I'm tempted, when I go by in the morning, to throw a rock and break the damned thing, because I think it's a light that's drawing them on all these rules and order. Thank you very much.

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EDUCATIONAL TECHNOLOGY: TODAY AND TOMORROW

Speaker: Andrew F. Inglis, Division Vice President and General Manager, Communications Systems Division, RCA.

It is an honor and a pleasure for me to participate in this first conference of WEST. I've only been here since two o'clock this afternoon but already I've gotten some sense of the excitement and interest that this meeting is developing, and I'm sure that it's going to grow in stature and influence as the years go on. I'm particularly pleased to see some of my old associates and colleagues from the broadcast business here. You may have gathered from the introduction, my responsibilities have been broadened somewhat, but once you've been bitten by the broadcast bug, you never quite get away from it.

I must confess to some nervousness approaching this subject I've been given. It's been customary for industry representatives speaking before groups such as this to describe all the new and wonderful things that are coming out of the laboratory and which are going to revolutionize the educational profession. This is understandable, because I think that during the sixties, the past decade, it was characterized by a rapid and probably unprecedented growth of technology. I don't believe there's been any time in the history of the human race that there's been such an outpouring of new concepts, new devices, and new systems.

Many of you have read the book, "Future Shock", and he expresses in here the concern that he has about the effect that this may be having on human society because this is happening in an exponential form. So it has been natural that someone like myself would talk about this. This has come about largely as a result of enormous expenditures that have been made in our military efforts and our space efforts and as a result of the exponential growth of the computer industry.

By comparison, the engineering expenditures in our business, television, have been very modest indeed, probably only a fraction of a percent. But even here there has been a tremendous growth in technology during the past ten years, and the equipment that is available today is a long ways from that which was on the market ten years ago. So I could talk to you this evening about the upcoming developments in technology. In fact, many of my colleagues and associates have urged me to do this suggesting that this is the subject that would be of most interest to this group. There are many things I could talk about. I could, for example, talk about the latest advances in cable distribution which make it technically feasible, and probably economically feasible to bring a hundred two-way broad-band channels into every classroom in the U.S. I assure you the technology is here to make this quite possible. Another thing I could talk to you

about are developments which technically make it possible to take a little audio cassette and record on that an illustrated slide lecture with both the video and audio information on it in slow scan format which can then be replayed through a storage tube and be replayed on a normal TV set. I could discuss the possibilities of satellite communication. But I think it has been oversold to a certain extent. But nevertheless, it does have the potential of bringing educational programs to underdeveloped countries such as India very quickly. And these are just a few of the examples of very exciting developments which I'm sure are going to have a significant impact on education in the coming years.

Now having said all the things I could talk about, I'm going to say I'm not going to do this. And the reason I'm not going to do this is because I believe the seventies are going to be different. It seems to me there is clear evidence that our technology has outrun its usefulness. Sometimes I get the feeling that those of us in the manufacturing business are running around with a bag full of solutions looking for problems. We've got technology here and we're looking for some way in which to use it. And, of course, any good marketing man will tell you, that's the wrong way to approach a product planning situation. So this leads me to the conclusion that the most critical problem for educational television and other technical aids to education rests not in the need for new breakthroughs in technology, but in the refinement of the technology we already have, and most important of all, learning to use it more effectively.

We consider the sixties to be the age of technology. I believe the seventies will be the age of educational software. It's going to be a time of stock-taking and re-evaluating this enormous stock of technical information and know how and products that are available. And devising new and more effective ways to apply them. This situation is not new to education. It's happening all over. The speed and the capacity of the computer, for example, have outrun the ability of people to use it. We can now turn out readouts and computers at RCA which, if everybody who worked for the company spent their full time reading them, they couldn't possible get through ten percent of what comes out every day.

In the seventies, the equipment manufacturers, therefore, must become more responsive to the needs of the educators. But equally, a burden rests upon you educators to identify the needs of the student, the teacher, and the classroom and portray them back to us more clearly. I think this problem has been recognized in both the what and the why of this conference. Here it is stated that the working theme of WEST seventy-one will be "telecommunications with the emphasis on tele, or telecommunications with the emphasis on communications." One of the purposes of the conference is to "break down the communications gap between manufacturers and users." The theme implies, and I assume this is what you meant, really the emphasis should be on communications, and not on the tele which represents the electronic wizardry which we are so proud of.

So addressing the purpose of this conference, then, I think the greatest contribution I can make is to give you some of my thoughts on how we can work together more effectively to enhance the educational process through the use of known technology. I'm sure you'll recognize the question I have raised is not original. Robert Locke of McGraw Hill has a recently article in the "Saturday Review." He says the educational companies, as he describes them, have muted their voices in the market place, so that instead of the forecasts of a few years ago that technology would change the face of education, the conventional view now is that education may not be ready for its technology after all. He adds that almost all the classroom innovations introduced after World War II, the use of Audio Visual materials, language labs, educational TV, were developed without benefit of research into the processes of learning. Some of these ideas succeeded, he notes, because they happened to match some obvious needs. Now, I can't quite buy that extreme a view of the situation and I cannot accept his implication that the business community has traded on opportunism alone. I can't accept the suggestion that any responsible supplier of educational market is only superficially concerned with the needs of teachers and pupils. We want, worse than almost anything, to know what you want to use to teach, because that's how we're going to make a buck, selling you that equipment. But here's a view expressed by a very knowledgeable person that technology may not even have a place in education.

As I was riding out on a plane today, I scanned through a book called "The Greening of America". I must say I disagree with about 95% of what he has to say. I will summarize the book very quickly and probably over-simplify it, but in effect, he says that the bureaucratic technological society that we live in now stinks, that young people understand this, and he describes a utopia that I would look at as sort of an ivy league fun-and-games type of society where everybody can do his bit and if he wants to wear old blue jeans to a formal ball, that's great because he's expressed himself, and I must admit my background doesn't fit with that but then I was born fifty years ago and that was probably too late, or too early. But nevertheless, I think that the one point that he makes we all must agree with is that technology has got to be the servant of people, and not vice-versa. That, I think, applies to the field we are talking about here.

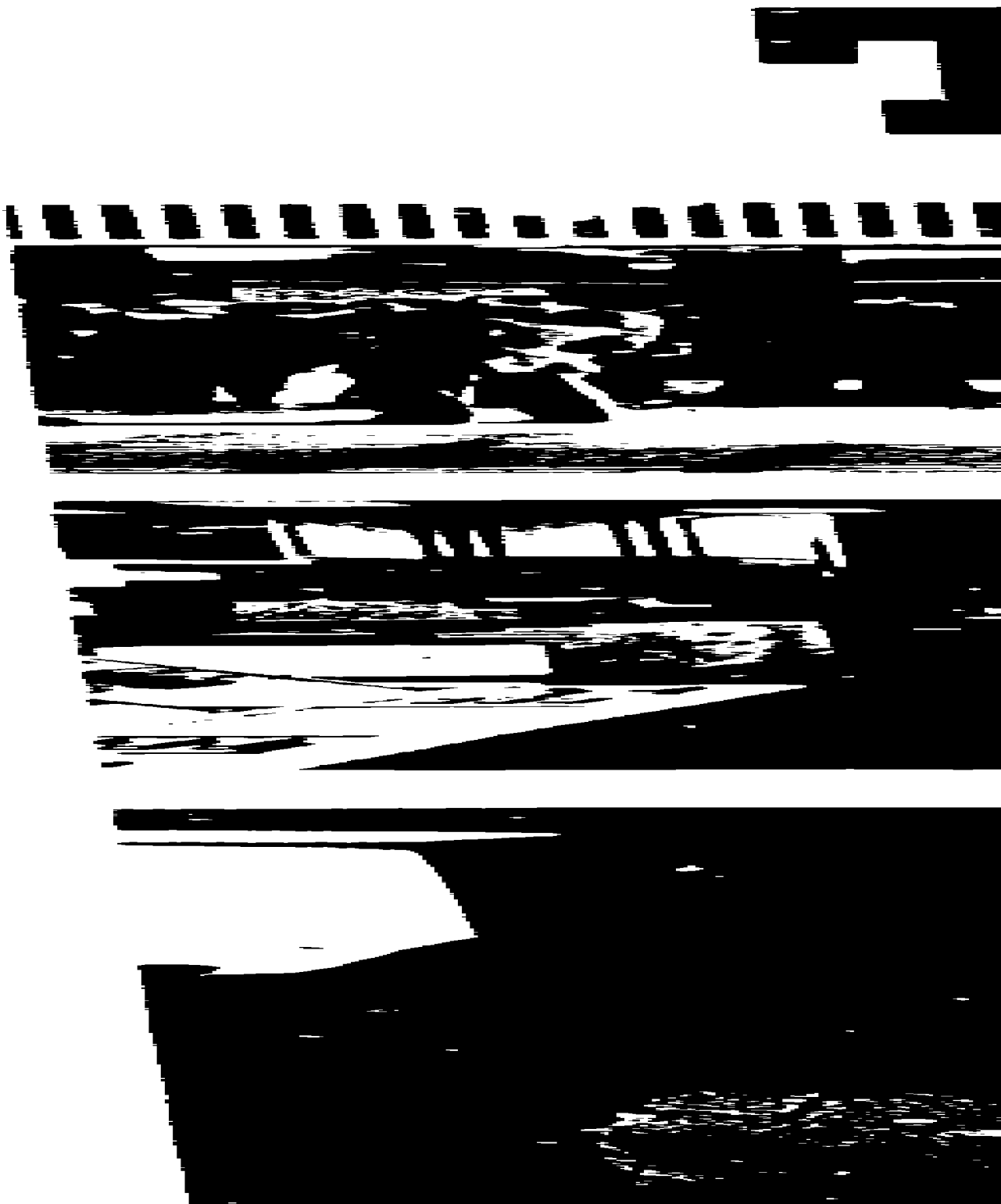
So, what suggestions might an equipment manufacturer make which could be of help and bring this about? Stating a problem in a situation of this kind is sometimes an important part of solving it, but in this case I think it's much easier to state the problem than solve it. What are some positive suggestions? First of all, I think we must have a recognition by the education profession that the leadership has got to come from education and not from the equipment suppliers. We have neither the talent nor the motivation to do this properly. And in my opinion, the attempts of the manufacturers to tell educators how to teach has been amateurish and ill-advised. You educators, the primary responsibility has got to be with you. Having said this, however, I must add that there is an equal obligation on the part of the equipment suppliers to develop a better understanding of the needs of the educational profession, and a greater recognition that technology is a servant of the educational process, and not its master.

Now, another suggestion, and this may be a little controversial. I would recommend a closer working relationship between civilian and military educators. I'm encouraged by the fact that tomorrow's program includes a series of seminars on military training. It seems to me that the armed forces have been relatively progressive in adopting audio visual and telecommunications aids in their their training program. This may not be an entirely impartial judgement, but I must say I believe I have detected in some cases a little hint of condescension in the attitude of civilian educators toward the military people who have the responsibility for training our armed forces, who point out, for example, that the primary emphasis is training and not education. There are fundamental differences here. This distinction is valid. But both processes involve the same basic problem of communication between teacher and student and there must be some commonality in the techniques for carrying out this process. I would also say that the educational TV people can learn a great deal from commercial broadcasters. And again, this may be a controversial point, certainly the message that you're trying to get across has a different purpose, but the basic problem of communication is still there. The commercial TV industry, for all its faults, has professionals in all areas of the business. All the processes that go into putting on an effective communication with the audience are handled by professionals. And I don't think you should be shy about borrowing from the commercial broadcasters and learning everything you can from them.

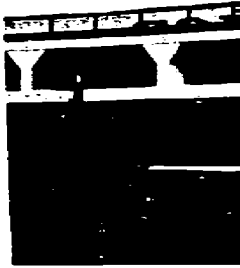
Finally, if I may be permitted a fortuitous comment, and I hope not a commercial, I believe that there needs to be a higher degree of professionalism in the whole area of educational television. This may seem like a motherhood statement, but it's very disheartening for somebody in the manufacturing business to see closed circuit television often equated with second rate television. It's incredible to me that we would value education so poorly that we would think, in education, that we should have poor equipment, amateurish direction, amateurish writing, all the other things that go along with putting on a program. Certainly this is more important than "Peyton Place" and the Beverly Hillbillies", and it's too bad. Conferences of this kind that have as its objective to lift the professionalism of the educational television profession are tremendous and I'm pleased to be here to participate with you.

I think I should include a commercial here for the carefully planned studio intell-
ation at the San Diego City College, an outstanding example of matching good
equipment with a good staff. But I just can't emphasize this point too much
when it comes to the selection of equipment. After all, the cost of the equipment,
is a very small part of the total cost of operating the television system. In
commercial broadcasting it is probably less than 20% of the total cost. The big
expense is in the software. And if you're going to do that right, you ought to
have the proper kind of equipment. On the other hand it's foolish to buy good
equipment and not match it up with a professional performance.

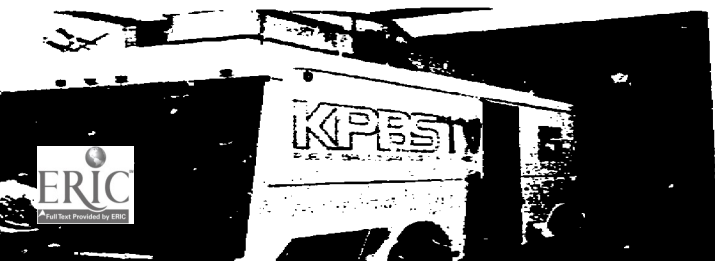
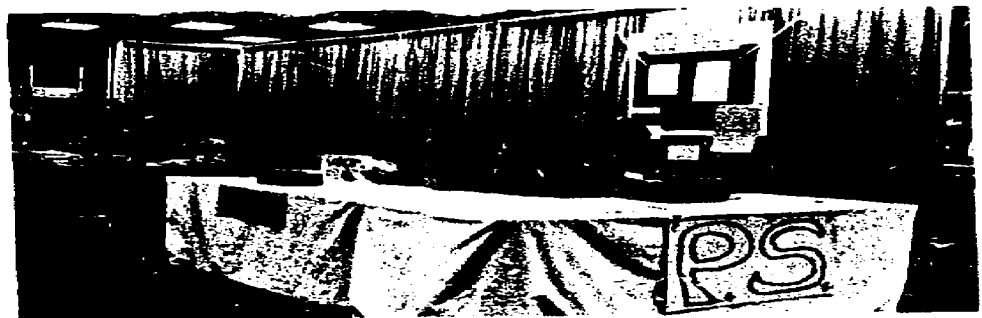
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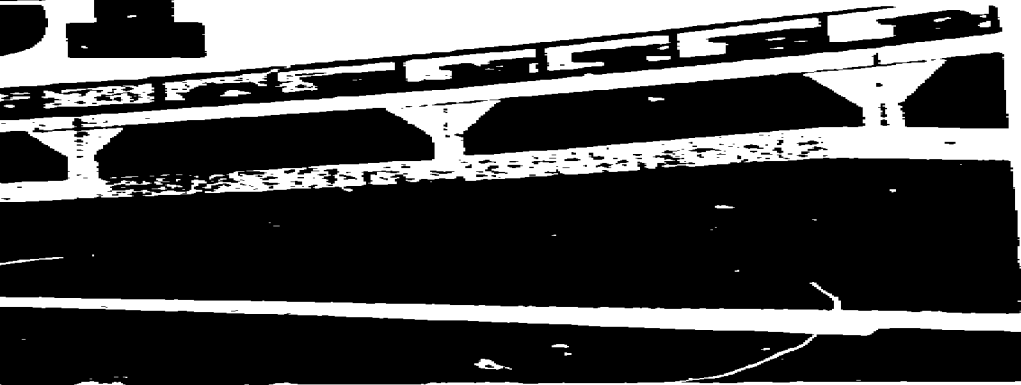
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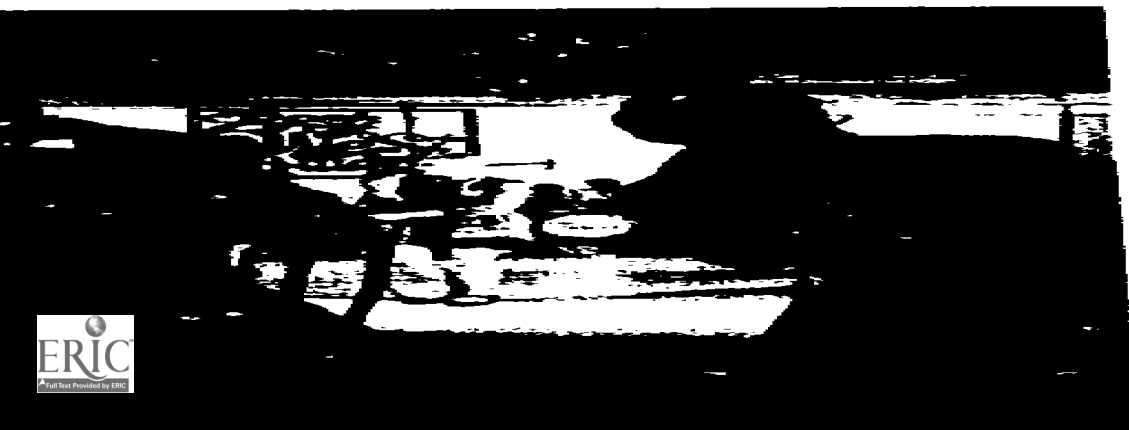
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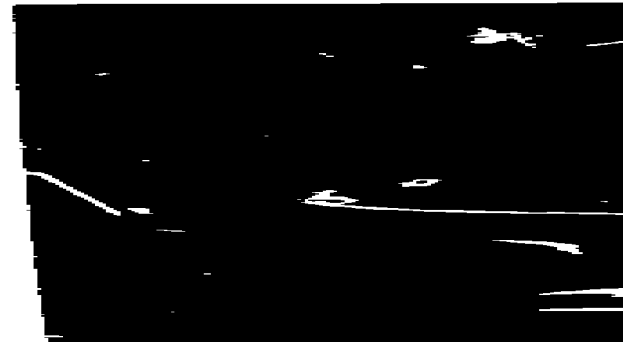


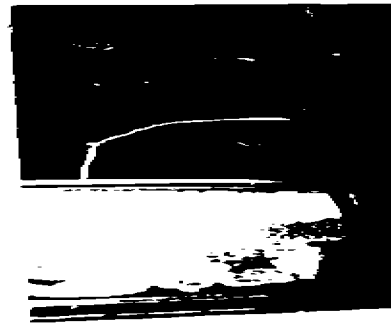
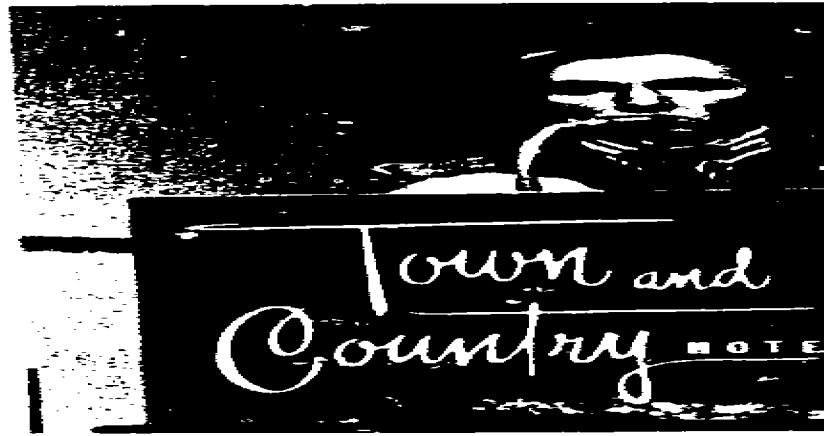
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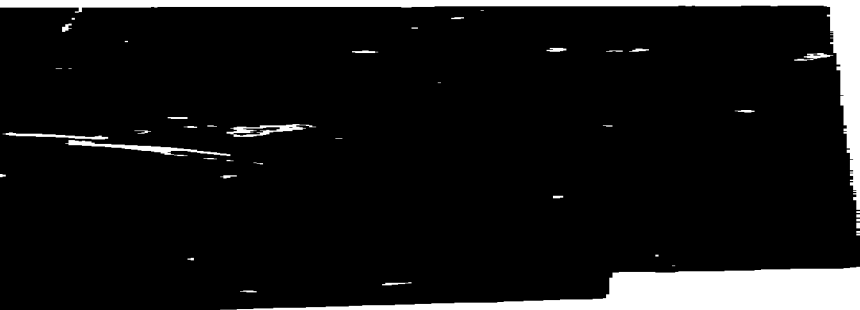
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The PTV and ITV Programming Potential for CATV A Two-Way Street

A rap session on ways of improving programming on CATV. Chairman: Ethel Booth, Materials Specialist, Beverly Hills Unified School District. Participants: Henry R. McCarty Director, Audio-Visual Section, San Diego County Dept. of Education; Charles J. Vento, VITA; Henry Goldstein, Chief Executive, Mission Cable TV, San Diego; David Lewine, National Program Director, TM Communications Co.; Thomas E. Clayton, Manager, San Diego Ares, I TV Authority. Reported by Gregg A. Payne.

This session was intended to focus upon the philosophical implications of CATV use in relation to instructional television programming possibilities. Specifically, such considerations as channel availability for educational use, channel reservations in respect to numbers and financial matters were to be excluded from discussion. Strict enforcement of that frame work failed, and the session profited from the failure.

In discussion of programming possibilities, enthusiasm now evident among educators for the potential of CATV was likened to earlier enthusiasm for ITFS potential. It was observed that now, in many cases, the educational community has ITFS channels available, but doesn't know what to do with them. The same situation, it was pointed out, could, lacking adequate planning, develop in relation to CATV channel availability.

It was suggested that media, including CATV, could replace teachers in respect to some of the jobs they are now doing, with the result that teacher efforts could be profitable realigned. It was further suggested that proper use in the instructional process of CATV programming flexibility might lead toward achievement of individualized instruction.

The multi-channel capability of CATV was, additionally, pointed to as having important implications for broad use of systems permitting retrieval, through dial access, for example, of program materials.

The same capability, coupled with implementation of a feedback system was cited as having great potential importance in development of whatever system may emerge in this country to parallel Britain's Open University. It was observed that such a feedback system, providing two-way communication, is in limited use in some places, and technically could be expanded or initiated elsewhere within reasonable financial limitations.

The potential of CATV as a means of providing formal, at-home instruction was also discussed, as was its value as a motivational force for students. It was suggested that CATV is a young peoples' medium, that they respond to it and that among programming possibilities is development of material by students for use on CATV systems serving schools.

Additionally, it was suggested that intelligently designed programming distributed via CATV systems can contribute to motivating parents to become more involved in a positive way in school matters, can be used to introduce administrators to the potential of the medium and can contribute to developing their support for it.

Subsequent discussion revolved around consideration of both programming philosophy and, programming philosophy aside, matters associated with school use of CATV facilities and capability. It was suggested that the educational community be realistic in applying for channel reservations, that demands for 20 per cent - or any specific percentage - of available channel space were, perhaps, arbitrary and not in the best interests of either the educational community of CATV operators. In this regard, it was pointed out that technology traditionally develops more rapidly than software, and that programming becomes difficult if too many channels require servicing.

In counterpoint, it was observed that establishment of channel reservations for education should not include a requirement that education immediately begin programming the channels. Alternative programming might be placed on channels not immediately put to educational use, but channels so reserved should be made available upon demand for educational applications.

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On-Site School TV: Two Approaches

Chairman: Robert Holstin, Arizona State Director, WEST
Speakers: Joan Scouller, TV Teacher, Lee Elementary School
San Diego; Lary H. Niggli, Director of Instructional Television,
San Marcos High School, San Marcos, California. Reported
by Tom Devaney.

APPROACH ONE

Mrs. Joan Scouller is an elementary school teacher with a Master's Degree in Instructional Television. In 1970, she received a grant from the San Diego Fund for Innovation in Education to pursue a study utilizing television in the teaching of phonics. The grant was used primarily to purchase Sony video-tape equipment and an aid to help in preparation of materials and working with the video equipment.

Each day Mrs. Scouller prepares a 15 minute lesson on tape using cartoons, puppets, and self-designed graphic materials most of which can be used on an overhead projector. During the taping of the actual lessons, she uses sixth grade students to man the equipment. The content of the individual lessons is determined by Mrs. Scouller and the other phonics teachers in the school. In addition this team and the teacher aid also prepare study guides, work sheets, and other materials for follow-up activities relating to the tele-lesson. Because the lessons are taped, they can be used at any time during the day at the discretion of individual teachers.

PROCEDURE

Phonics students work in three groups within the classroom. One group views the video lesson while others work on their own, or with the teacher on pre-tape or post-tape activities. While viewing the lesson, the students wear headsets and have in front of them work sheets on which to write exercises as directed by the television teacher. Upon completion of the video lesson, the students move into other areas of activity related to the presentation. The taped lessons are not lectures. They are presentations involving the use of graphics and animation to motivate youngsters to pursue learning on their own when the TV lesson is ended.

The basic strategy is to involve the students and create interest activities such as games and projects to be pursued individually or in small groups.

The utilization of video presentations has served to release the individual teachers from activities which involve presentation techniques and create situations in which they can work with students on an individual or small group basis. The success of the taped lessons is in large amount due to the ability of Mrs. Scouller to successfully use the medium as it should be used - as a visual medium. In a demonstration tape shown to the session, she demonstrated that good instructional television can be produced using a very limited budget.

Because the project is so new, there has not yet been an evaluation of the program. According to Mrs. Scouller, however, the students' interest is high and the group or team approach to the teaching of phonics has created a new enthusiasm for the subject on the part of the teachers involved. A by-product of the project has been an increased interest on the part of teachers in the incorporation of television into other parts of the elementary curriculum, particularly in student-produced programs. At present, a lack of materials has stymied these efforts.

APPROACH TWO

Larry Niggie is a high school teacher at San Marcos High School in California and Director of its closed-circuit TV system. Through the National Defense Education Act, San Marcos was able to establish this system which consists of a production facility and television monitors in each classroom all of which is connected to the local cable television system, making commercial as well as instructional broadcasts available. The system began with one video tape recorder and one camera and has expanded to a full studio facility. In addition to the industrial cameras and equipment for studio use, two additional VTR units and a battery operated recorder are permanently in the building. Because of the wiring system in the building, classrooms can be turned into production facilities if desired by individual teachers for use in their curricula.

The original intent was to use equipment for record and play-back of programs off the air and the cable. Last year the decision was made to produce programs as well and to design an introductory broadcasting curriculum. This program will begin in September of 1971. Students in ninth through eleventh grades will have the opportunity to enroll in a basic orientation course designed around use of the equipment. Students completing this course may take an advanced course in which they are responsible for designing their own productions and producing programs for teachers in the school. Student operating crews will come from this class. Plans are also being formulated to extend the academic base of this curriculum to include other communication courses.

Since each classroom has monitors, certain school activities once relegated to the medium of print can now be provided through television. The morning bulletin is presented as a newscast to all students; advertisements for school activities are televised; the sports program is promoted through a weekly sports

report complete with interviews of the participants; a world news program is also presented to the student body.

Mr. Niggie's facility runs the six hour school day. Student crews maintain equipment, run tapes and off the air programs and oversee the use of portable equipment. The industrial arts department oversees maintenance. It is estimated about ninety per cent of the six hour period is taken up with some television activity. An Attempt is being made to involve some of the cable system operators in the program. It is hoped that some of the more adept students might find employment on a part-time basis with these systems.

Since next year is the beginning of the formal program, this school year is being spent in experimenting with various aspects of the curriculum. The idea is to start slowly and smooth out the program prior to the start of classes next Fall.

Teachers are beginning to use television to a greater extent within their individual courses of study. A sample video tape was shown which a student produced for a conservation class. It was a most impressive statement regarding the problem of water pollution. Other tapes of this nature have been produced as well as teacher produced teaching materials. Because of student interest and administrative support for the program, teacher resistance to television is waning. Mr. Niggie anticipates the future will bring a much greater use of television by individual teachers.

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TELECOMMUNICATIONS AND PUBLIC SERVICE AGENCIES

Chairman: Allen M. Zeltzer, Director, Instructional Media Center, California State College, Fullerton. Speakers: Mrs. Alice Rodriguez, Audio-Visual Coordinator for the Santa Ana Hospital, and Mr. Harry Kailer, Battalion Chief of the Orange County Fire Department. Reported by Richard Blankinship and Jim W. Hawkins.

Public service agencies are really just people helping other people and that's what it's all about, but the question is how can they help people best. Increased knowledge both on the part of the staffs and on the part of the public is the idea behind the use of television by public service agencies.

Mrs. Alice Rodriguez gave a report showing what hospitals can do with TV to help people both in and out of the clinical setting. She explained that the Santa Ana Hospital ventured into television in April, 1970 with a one channel closed circuit system. At that time, the primary function of the TV unit was to tape newborn babies and play back the action later for the families. This has been increased to three channels for use by the Santa Ana School District.

Still using the original one inch VTR and solo vidicon camera, Mrs. Rodriguez and her crew have been able to produce programs on topics like teenage nutrition, using the hospital dietician and a group of high school girls. Mrs. Rodriguez is optimistic that this type of programming can be very valuable to the community, and looks forward to the establishment of tape exchange networks with other hospitals and perhaps utilization of a cable system to disseminate health and other associated information to the public. *

Mrs. Rodriguez said that much of the production was done in the school's studios because of lower cost. She did add, however, that the hospital has received a second camera recently. She commented that part of the problem with use of the equipment in hospitals was that most hospital TV coordinators had little if any training in TV production. She thought that more students with production experience could be used even if they did not have medical training. The medical and hospital knowledge can be picked up as you work in the hospital.

Chief Harry Kohler spoke on the uses for TV in the fire department. Equipment is limited to one camera, one monitor, and one half inch video tape machine. He finds the greatest use of television in critiquing training sessions. He has also experimented with instructional programs and envisions future expansion

*Editor note: See report of session on Medical TV Network

to include more sophisticated instructional programs and a tape exchange network with departments across the nation.

Both speakers see a great potential for the use of television by all Public Service Agencies. They predict many jobs in this area will be available to broadcasting persons. But they also realize that money is an important obstacle and that the decision to utilize television requires a further commitment to purchase sufficient personnel and equipment. Otherwise the medium will not be used as effectively as it could be.

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**BREAKING THE ITV
UTILIZATION STEREOTYPE**

Chairman: Gordon Hughan, National Instructional Television, Millbrae, California. Participants: Ray McKelvey, Utilization Coordinator, KTEH-TV, Santa Clara County Schools; Louise Henry, Media Field Representative, Santa Clara County Schools. Reported by Bob Hartwig.

Ray McKelvey spoke on how to break out of the mold that ITV has gotten into. He mentioned three things that are essential if we are to do this: (1) new programs, (2) new practices, and (3) convincing planners (teachers, administrators etc.) of the real potential of ITV.

(1) As a means of obtaining new programs it was suggested stations could pool many of their resources. Thus talent, administrators, and facilities all could be shared to achieve greater program resource potential. It is also important to eliminate some of the local ego.

(2) In order to achieve new practices, design of facilities was mentioned. However, the most important aspect was "integration of media with the whole instructional program." In order to demonstrate how this could be achieved, a first grade teacher from Santa Clara, Mrs. Audrey Theison, explained how she used the ITV program Ripples in her class. We then viewed a video tape of Mrs. Theison using the tape in her class. Mrs. Theison demonstrated how creative writing, committee work and current events could all be tied into one program.

(3) We must sell the new message. The responsibility is directly on our shoulders. We must quit talking to ourselves and start talking to the people who count; The administrators, the Department of Education, teachers, and other curriculum related people are the ones who have to be convinced.

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**LOW BUDGET TV PRODUCTION TECHNIQUES:
A WORKSHOP, PARTS I AND II."**

**Chairman: Gordon H. Tuell, General Manager, KWSC
Workshop Leader: Thomas C. Meador, Assistant Professor,
SDSC. Participants: Vince Molinare, Art Director, KPBS-TV;
Roy Madsen, Associate Professor, San Diego State; T. Russell
McMurtray, Eastman Kodak Company. Reported by Ted Smith.**

The more-than-capacity attendance and the need to turn some people away from this session made it obvious that the continuing interest in production techniques by the members of WEST had been grossly underestimated. Those who did attend also felt that any one of the speakers could have presented a complete session on his topic.

Professor Meador's presentation lead off with a video-tape demonstrating the use of models, masks, and gobos to give the illusion of elaborate sets. A suggested sub-title was: "Fooling Your Audience." The main feature of the presentation was a "mini-set" with mirrors which could be used to give the illusion of large rear-projection screens. A suggested title for this section was: "How to 'chroma-key' with one (1) black-and-white camera." After the tape, he showed the mini-set and some of the cut-outs which were used in the tape. The closing comment was; "If you can't afford a large set, try building a small studio, a very small studio!"

Vince Molinare stressed the importance of good graphics to a TV show. He showed many examples of good graphic design. The basic principle to be remembered in working with TV graphics is that the television screen has a height to width ratio of three to four (3:4) and all graphics must be designed with that ratio in mind. Still another consideration is the cropping that takes place in television transmission and reproduction. This means that a TV graphic must be divided into three areas. The first is the essential area. All of the information must be in the essential area. Surrounding the essential area is the scanned area. The design should fill this area and extend into the third area, the border, to allow for such things as mis-framing or alignment by the cameraman. It was emphasized that it is not a good idea to have a definite border for the same reason. The design should taper off irregularly so that if the Lettering for TV graphics should be simple and clear with the emphasis on readability. If ornamental lettering is desired, it should be checked for readability. Graphics done in color must be designed to be compatible in black-and-white.

Paul Marshall's presentation was on low-budget animation. He showed several film clips to illustrate the points that he was making. His basic point was that animation is neither as complex nor as costly as many people believe. The basic requirements are a camera which is capable of single-framing and a sturdy stand which can be improvised. One of the simplest forms of animation involves three-dimensional objects. These objects are manipulated while the single-frame camera is fixed on a tripod. Regular cel animation can also be simplified by the use of camera and background rather than subject movement. Cel animation is aided by the use of an animation ring which is relatively inexpensive. An animation ring allows easy calibration of the movements. A key requirement of animation is careful planning and record keeping. A good technique is to animate to fit a piece of music. Simple animations can be the key to better titles and station promos.

Professor Madsen gave a report of the state-of-the-art in animation. The latest development is computer animation. An analog computer is capable of infinite variation. The only drawings that have to be made are the beginning and the end. The computer does all of the "in-betweening." Because of the fantastic savings in time and labor, computer animation is rapidly taking over the business.

Part I of the seminar was capped by a slide presentation by Mr. T. Russell McMurtray of the Eastman Kodak Company. The slide sequence was designed about ten years ago as an introduction to the use and perception of color for advertising agencies. It remains most relevant today as many public TV stations are converting to color. The presentation showed how easily the eye is fooled and pointed out the need for care in the use of color.

Part II of the seminar was a question and answer session. Some of the points raised were:

- 1) The need for actual workshop sessions.
- 2) Chalmers Marquis suggested that the PBS inter-connect could be used to feed workshop material during non-network hours.
- 3) David Bash of SDA/ITVA suggested that workshops be held on a regional basis so that the "working people" could attend.
- 4) Each of the speakers in this session presented or could have presented enough material to make a full session on that topic worthwhile.
- 5) There is a need for a production workshop for those who are using television on an intra-classroom basis with very simple equipment such as one camera and one half inch VTR.
- 6) Several requests were made for copies of Professor Meador's VTR presentation. (Mr. Meador indicated that those interested could write to him directly and that dubs could be made for those who would supply their own tape.)
- 7) It was indicated that the preceding offer should be extended to all of the available material from the WEST conference. A list of all such availabilities should be published in the next issue of the TeleMemo.

Questions to : **Professor Thomas C. Meador**
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**"COMMUNITY NEEDS AND SUPPORT:
DEVELOPING AN INFORMED LOCAL AUDIENCE
THROUGH VOLUNTEER EFFORT AND INVOLVEMENT"**

Chairman: Bertha Montenegro, California Congress of Parents and Teachers. Speakers: Mrs. Allan E. Charles, First Vice Chairman, National Friends of Public Broadcasting; Miss Duncan McDonald, Executive Secretary, National Friends of Public Broadcasting; Mr. William Duke, Corporation for Public Broadcasting. Reported by Jim W. Hawkins.

In this seminar it was brought out that there was now a way for the manager of a local public broadcasting station to have more tree time on the golf course. The Corporation for Public Broadcasting's needs were also viewed.

Mrs. Allan E. Charles, First Vice Chairman for the National Friends of Public Broadcasting (FPB) gave a history of the new group which is planning a national conference on May 4-6, 1971.

She stated that the program is really growing quickly even though the paid staff is almost non-existent. The bulk of the available funds are going to pay for the conference and the delegates from the local stations throughout the country.

It is hoped that eighty stations will be represented at this first meeting though more will be added later. The delegates are people selected by the local station managers. It is believed that the group will be made up mainly of women, but Mrs. Charles stated that if a man comes, he will definitely be the star of the show.

Stations are being selected to achieve a cross section of the country. The idea of the conference will be for the delegates to get to know the leaders in public broadcasting and to exchange ideas.

Assisting Mrs. Charles with the report was Miss Duncan McDonald, Executive Secretary of the Friends for Public Broadcasting. Miss McDonald said it was hoped that everyone present would take an interest in the program even though some stations might not have delegates. This would make them like the violinist who was being praised by the concertmaster for not missing any practice sessions. To this the violinist replied, 'I have to come to all the practices because I can't make the performance.'

After this lighter note, Mr. William Duke from the Corporation for Public Broadcasting spoke on his organization.

The main idea of Mr. Duk's comments was that the support of groups like the Grange and labor unions was needed. He thought that the backing of any national group of this type was the Corporation's strongest asset.

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"THE THREE FACES OF ITV"

Chairman: June Dilworth, Director, School Broadcasting KCTS-TV, Seattle, Washington. **Speaker:** Donald N. Wood, Associate Professor, Radio-TV-Film, San Fernando Valley State College. **Reported by** Gregg A. Payne.

The thesis of Dr. Wood's talk was that the framework within which instructional television is frequently discussed, a kind of "my project, your project, our project" framework, is, in general, a parochial, unnecessarily limited and perhaps debilitating one; debilitating in the sense that it may hinder ITV's optimum development and implementation.

Taking educational television as his subject, Dr. Wood divided it into two parts: (1) television for home viewing and (2) instructional television. He then discussed the parts with emphasis on the second in respect to television as (1) a medium, (2) a tool and (3) a social phenomenon.

For purposes of the presentation instructional television was re-labeled school television, a term, it was suggested, that might be more appropriate either within or outside the context of the presentation. The following points were made:

As a medium, television is basically a means of sending information over some distance, and, with that in mind, distribution and production might best be separate considerations. In either case, the scope and purpose of material being prepared or considered for use were held to be appropriate considerations in determining suitable production techniques and distribution means.

School television, as a tool, has the capacity to provide direct classroom instruction and teacher in-service education. It has micro-teaching or self-confrontation applications, and it can be used for intra-school, intra-district or inter-district administrative purposes. Further, it can be used to involve students in extra-curricular activities or to train students in development of materials that can be distributed by television, a skill that may be as important in the future as development of print materials is today.

In respect to television as a social phenomenon, Dr. Wood made several points. Children today, typically spend more time viewing television in the pre-school years than they spend in class during their

first several school years. School television can be used as a path to achievement of new objectives instead of merely another means of reaching old ones. Through its use, some of the artificial compartmentalization of curriculum can be eliminated. It can be used as a means of altering student-teacher ratios to virtually any balance that may be appropriate, depending upon circumstances and the need to be served, from one-to-one to five hundred-to-one and in a number of other ways.

The thrust of the presentation was aimed at treating the professional myopia of those school television practitioners who are susceptible to the "my project, your project, our project" syndrome, and consisted largely of graphically illustrating the capabilities of school television. Specifically, it was pointed out that school television is technically capable of distributing virtually all audio visual materials, and that deliberations aimed at determining administrative responsibility for use of portable video tape recorders or CCTV systems, or establishment and maintenance of video tape libraries or methods of film distribution are largely irrelevant and symptomatic of the myopic condition.

School television, properly constituted, can and should be so completely integrated into the total school organization, and an instructional system designed to make information available to those who need it, when they need it and where they need it, that it becomes indiscernible as a clear, distinct element.

The Three Faces of ITV were presented by means of what was described as a one-medium (slide) presentation designed for cognitive exposition.

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THE OPEN UNIVERSITY

Chairman: Martin Chamberlain, Director, University Extension, University of California San Diego. Speaker: Kenneth K. Jones, Professor, Telecommunications and Film, San Diego State College
Reported by Steve Coon.

This session of the conference began with a few opening remarks by Dr. Kenneth Jones, who remarked that higher education is in a financial bind which is a deterrent to its effectiveness. Education hasn't changed its ideology or philosophy in 300 years and the Open University is a definite plus for education.

To better explain the Open University, Professor Jones introduced Martin Gienke, who has spent time in England where the Open University is well into operation. He explained that the Open University was derived from ideas put to practice at Experimental Colleges. Its purpose is to offer courses to those people who haven't been able to acquire a higher education for reasons other than academic deficiency. Each student must complete six units for a degree and eight for an honor degree. Mr. Gienke explained that each class is one unit and involves ten hours a week with correspondence material and two hours of radio and TV. Hopefully, this will be increased to thirty hours a week in three years. Tutors then help the students with any question. There are 20,000 students enrolled this year and it is expected that 5000 will graduate. The average student is expected to get his degree in five years. The cost of the Open University, Gienke said, is 3.5 million pounds. The cost to each student is fifty pounds a year, which is less expensive than a regular university.

Professor Jones then took the stand and laid out the plans for State's Open University system. He said that three courses would be offered. They are: Humanities, The Contemporary World in Historical Perspective, and Man in His Universe. Cable TV will hopefully be used and the courses will be simulcast on FM as well as TV. Feedback would come in the form of phone calls to the studio where tutors will be on hand to answer the students questions and adopt the role of a councilor. Professor Jones said he hoped that this program would help those that wish to acquire a higher education but can't take the time to come to the campus. He also reminded the audience on hand that over eight thousand students were unable to get into State Colleges this year and that with this system, those students would be able to continue their education.

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"NON-BROADCAST DISTRIBUTION OF
EDUCATIONAL PROGRAMMING - PART I"

Chairman: Charles M. Northrip, Executive Director, Alaska, Educational Broadcasting Commission. Speaker: Frank W. Norwood, Executive Secretary, JCET. Reported by Bob Hartwig.

Frank Norwood of JCET was the primary speaker of this topic. Mr. Norwood said, among other things, that unless we seize opportunities now, we lose them forever. The new technologies (cable, satellites, ITFS) are harder to talk about with administrators than TV. Administrators can understand TV because they have it in their homes, but the new technologies are much more difficult. Concerning the requested 20% allocation of cable channels, Mr. Norwood said that the cable companies should be allowed to use the channels until the educators are ready to use them. The main thing, as far as allocations on cable systems are concerned, is that we get consistent federal legislation. It was also said that ETV could take three or four channels in the span between channels six and seven on the cable system since there is little practical use for them to commercial cable companies.

Mr. Norwood said the new technology offers us three things: (1) cable offers an escape from the frequency shortage, (2) satellites offer a release from geographical restraints, and (3) time constraints will be released by cassetts.

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ESTABLISHMENT MEDIA COVER THE CAMPUS

Moderator: Jim Buckalew. Speakers: Jim Gordon, Reporter and Newscaster KFMB-TV; Stuart Hyde, Chairman, Communication Arts, San Francisco State; Ed Beeler, Managing Editor, El Cajon Daily Californian; Ron Reina, News and Sports, KDEO Radio. Reported by Robert H. Hostler.

Dr. James Buckalew opened the meeting with a brief introduction of the speakers. It was immediately apparent that many fields of the broadcasting industry were represented. Jim Gordon was the first speaker called on by Dr. Buckalew. Buckalew asked Gordon to comment on his experiences talking "to youth about their problems in local schools." Gordon claimed he was not "assigned youth coverage at KFMB specifically." However, he said, "I have done some homework."

Mr. Gordon proceeded to list the number of stories about youth that had appeared on KFMB from 1967 to 1970 which directly related to happenings on high school and college campuses in the San Diego area. The stories, according to Gordon, were considered to have a "positive or negative" connotation about them. "UCSD Proposes Strike" is a negative story, said Gordon. Less obvious stories would be considered positive in tone. Gordon claims, "A tree planting ceremony" is a positive story. When the figures are displayed the obvious conclusion is that more positive stories are covered than negative. For example, in 1967 KFMB covered 26 stories about UCSD; only one story did Gordon consider derogatory. In 1969, 59 stories were covered with 12 negatives declared. The list of facts was endless with positive stories winning out over the negative stories. Gordon's presentation lead to questions both from other panel members and the audience.

Ed Beeler was next asked to explain why the "Daily California" does not have a "youth page" as does the "San Diego Union". Beeler explained the "Daily California" had a policy against printing special stories for youth. Beeler said, "We try to print stories that will interest youth everyday." Beeler feels a youth page tends to "segregate: We want to hook young readers on reading a paper everyday." Beeler has noticed that young people enjoy the science articles the most. He said, "at the Daily Californian we do not ignore news about what young people are doing. Youths' stories are simply mixed with stories for the older readers."

Buckalew then asked Stuart Hyde to comment on the coverage of news during the San Francisco State turmoil and about Hyde's proposals that colleges use closed circuit TV for communication purposes. Hyde is responsible for initiating the use of closed circuit television communication on the San Francisco State Campus during the Cambodia issue in May of 1969. His theory is: Allow an open mike

in the television studio to all individuals or groups who want to present an argument to the student body. Closed circuit television presents all sides of the issue to the students. Hyde said if State would have rioted one more time, the school would have closed its doors for good. His goal was to "increase communications on campus." However, the communication gap did not only exist on State's campus, Hyde said the local media "fed on us for six months." He said the media were guilty of sensationalizing and skirting the issue. Hyde feels the showing of violence and confrontations between youth and police has "alienated older people from youth." He said this has caused a back-lash in the form of voting down bond issue after bond issue. The above proceedings were interjected with numerous questions from panel members and the audience. Perhaps the most spirited moments of the seminar were immediately following Hyde's remarks about the "Second American Revolution is right on schedule." Hyde believes, "Establishment media are doing everything they can to facilitate that revolution"; by showing the violence, by covering the gory details instead of enlightening the public on the reasons for the conflict. The question was asked why? Ron Reina pointed out that "Radio and T.V.'s first concern is money." News tends to rank low and secondary to entertainment programming because the profit margin is higher for entertainment shows.

When solutions were called for, Hyde suggested, "better training of journalists" and "we have to get management out of the office to evaluate the reporters work."

The seminar was in heated debate over the problems of news coverage in media when Buckalew called a reluctant end to the meeting; but not to the issue, as debate continued in the lobby after adjournment.

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CLOSING THE RAP GAP

A rap session of public relations and fund raising activities in public broadcasting. Chairman: Gloria Penner, Director of Community Relations, KPBS-TV, San Diego. Speakers: Roland Fenz, Director of Station Development Support Corporation for Public Broadcasting; Ed Pfister, Director of Information Services, NAEB. Reported by Larry Pollack.

The twenty-two people who arrived at this early morning session were indicative of the zeal of the San Diego WEST Conference. The informal session began with questions coming rapidly as the enthusiastic participants set in for a productive session. The following questions and subsequent answers are those which seemed of most universal interest:

QUESTION: When state legislation is being prepared, what are some points to look for relating to financial support?

Mr. Pfister: The legislation should include a statement on the need for public support.

Mr. Fenz: There should also be a provision for a station or network to find funds as a public corporation.

QUESTION: What is happening in the area of support from city and county auspices other than schools?

Mr. Fenz: Not very much is happening. In some cases stations are receiving money from entertainment tax revenues similar to those libraries and civic theatres receive. Today, in exchange for this money, some cities require projects or productions in the form of airing city council meetings, and other public productions.

QUESTION: Is this a good practice? I personally don't think so.

Mr. Fenz: Money is needed and today fewer and fewer people or institutions are just giving money to stations. Philanthropy is becoming practical. People want to see where these gifts are going. It would be ideal to say (to local government and citizens) "this is what we plan to do and this is the amount of money we need to do it." It has been our experience that people say, "do it and then we will find the money."

Mr. Pfister: The national level is aware of the plight of the local station. These problems must be worked out at both ends. Tincups will still be needed to collect money as well as large donations or a tax base to work from.

QUESTION: Why don't we hear from the NAEB asking for tax support on the local level?

Mr. Fenz: National level organizations are working on this approach. We have found from experience, however, that you have to begin at the local level. If you can make it work at your level, then more support can be given.

QUESTION: How can you raise money if you don't have a station on the air yet?

Participant: It is difficult to raise money if you don't have a product to show. In many cases local commercial stations have helped greatly. If you can't show your product you must develop a need through the public to responsible leadership. You must convince the legislature and other government bodies that your need is necessary. A campaign to do this must be on many levels.

Mr. Pfister: You can get help through civic leaders and advisory boards such as the National Friends of Public Broadcasting. They are a very good organization for help. Experience has proven that you must sell your ideas at all levels. A general discussion on fund raising brought out some interesting and worthwhile statements.

Participant: We must keep our contributors informed of what the station is doing. Often times once a contribution is given many stations lose contact with these people.

Participant: I found one way of raising money is through the aluminum can drive. It doesn't bring in a lot of money but does help defray some expenses.

Participant: I found one interesting fact about fund raising, it helps the morale of the staff of the station. It is very tangible evidence that there are people out there who enjoy and appreciate what we are doing.

Gloria Penner told the seminar of the success KPBS-TV had in its recent fund raising drive. She said she would be happy to discuss the drive with anyone who was interested.

Mr. Fenz and Mr. Pfister said the CPB and NAEB wanted and were looking for comments from local stations on any problem they might have. They were ready to help in any way they could.

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TECHNIQUES OF FILMING FOR TV

Speaker: T. Russell McMurtray, Motion Picture and Education Markets Division, Eastman Kodak. Reported by Murray Nicholson.

This was a presentation giving an overview of the entire subject of film for television. Mr. McMurtray stated that the requirements for film in television are the same whether its broadcast television, closed circuit television, or cable television. He noted that film is becoming extremely important in television with over three-hundred million feet being used to fill the needs in 1969. Television stations constitute an important market for film. According to McMurtray, 80% of prime time television today is on film, and at least 90% of network commercials are produced on film.

McMurtray discussed what he termed the three E's of the film system of a program production; the ease, the economy, and the effectiveness. McMurtray stated many reasons why film should be used in television programming: film is easy to use in making visual communication more effective; cost is another important factor; film permits more mobility and spontaneity which permits better programming; film permits a good television image; at any performance level, film production equipment will require a lower capital expenditure, particularly for color, than will systems of comparable quality.

McMurtray also discussed the typed of film equipment--cameras, recorders, film, lighting equipment--its costs, uses, and advantages.

The presentation was then followed by a discussion of film types and questions.

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PUT MEDIA TO WORK IN BROADCAST EDUCATION

Speakers: Dan F. Baker, Instructional TV Coordinator,
California State College, Long Beach; Bill Weisgerber,
Radio-TV Instructor, California State College, Long Beach.
Reported by Kryss Bohme.

"Are you teaching more, but enjoying it less? And, what about your students?" The ideal telecommunications basic technical operations class would be about seven students. But today's situation involves thirty students in a small studio in a "hands-on" situation. What is the solution? Hypothesis: A well structured self-instructional program can be as useful a method in furthering learning objectives as teacher lecture demonstrations in the college radio/television curriculum. The "self-instruction program" is a program of specific information, designed for the student to use individually or in small groups, with or without supervision. The program material may be presented with the use of audio tapes, slide/sync., film loops, and/or graphic media.

For example, the class is divided into two groups, those with no previous experience in the use of audio equipment and those with no previous video experience. The first group, with no audio experience, is taught the audio board -- not by conventional lecture/demonstration but by the use of an audio cassette. The student checks out the cassetts and player, goes to the audio board and turns on the cassette. Then, by following the instructions on the cassette, learns "by doing" the proper methods of operation for the audio board. The student, if he does not understand one segment, may rewind the cassette and again go over the procedure. Cassettes are available for nearly all phases of audio equipment. Group Two, with no video experience, has taped self-instruction programs available for selected pieces of video equipment.

Other self-instruction programs can be done by use of short video taped programs, utilizing drama sketches. Example: Introduction of Fresnel... Adam and Eve in the garden, dimly lit. Eve asks for more light and a Fresnel pops into view. Eve asks "What is this?" God answers, "A Fresnel!" The main problem with the use of video tape is, of course, playback facilities. This problem may be solved when video tape cassettes become a practicality.

If you use a text, why not produce it? Different principles can be dramatized on both video tape and audio tape.

The importance of proper cueing on the turntable can easily be demonstrated by requiring the student to edit an audio tape with "wows" created by improper

cueing.

The basic guideline for this program is to direct or guide the student, but the student must do it for himself. He must not merely be shown, he must do it. This is a "learn by discovery" method. And, as Bill Weisgerber said, "We have to leave some things out. That's the way best learning takes place".

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TELEVISION FOR TRAINING: CASE STUDIES

Chairman: Bertram Barer, Chair man, Radio/TV Dept., San Fernando Valley State College. Speakers: Walter Robson, Hewlett-Packard, Palo Alto, California; Phil Neuhauser, Jet Propulsion Lab, Pasadena, California; Reed Lawton, Western Region Director, National Industrial Television Association. Reported by Larry Zeigler.

Walter Robson began the seminar with a discussion of what industrial television is all about. According to Mr. Robson, industrial television is really adult education in which one must take into consideration a statement of the problem to be solved, instructional objectives, and an analysis of the audience. In creating their programs, they utilize a blend of motion pictures and television and develop a full script, audio tract, and synchronize the words with the pictures. They found in their research that the "talking face" does not contribute to learning as much as would be expected. According to Mr. Robson, 85 percent of learning comes from the eye. The sampler tapes that were shown had a heavy emphasis on a voice-over explaining the visuals.

Mr. Robson feels that industrial television is necessary in such areas as management training and human relations. The programs at Hewlett-Packard are shipped to over eighty locations in the world. In the future, Mr. Robson believes that programming will concentrate more in the behavioral areas. In many instances, he feels that more can be said utilizing television than with a live lecture. For example, they found that by replacing live two hour lectures with twenty minute TV lectures, the Tv lecture was more effective.

Phil Newhauser of Jet Propulsion Lab continued the seminar and related some of their techniques of programming. Because they are limited in production time, they do not have much opportunity for editing the tapes nor time for pre-production planning.

The tapes go to such places as Africa, Spain, and Australia. In many cases, the object of the tape is to get overseas personnel acquainted with specific people. An example shown at the seminar was a lecture series on "written communications" in which the personality of the lecturer was the key factor. The program utilized a normal lecture situation. Another sample program for high school children entitled "Chemistry We Don't Understand" was shown. Mr. Neuhauser mentioned that in addition to a good personality, good graphics are essential. He concluded by saying that industry is making a "valiant effort" in experimentation and will continue to do research in television communications. He feels that the current product will foreshadow the future.

Reed Lawton concluded the seminar speaking on "Television for Community Needs". He spoke of the idea exchange television has helped accelerate between industry and colleges. He feels that conferences and workshops are important for industry as part of continuing education. Television, according to Mr. Lawton, should be employed more, especially in the school systems. Industry will benefit from television training in many respects. For example, minority groups will receive more than a normal amount of training with television. Communications via television can show workers how a specific product is progressing. Mr. Lawton continued to cite examples of the benefits of television for training. For instance, May Company produces video tapes to train new employees, educating them on products, behavioral relationships with customers, and the basic mechanics of the specific job.

In the question and answer period, Mr. Robson felt that anytime one brings television monitors into a classroom, it poses a threat to teachers. Cassette tape recorders, according to Mr. Robson, will be in wide use in the future for instructional purposes.

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CAREER PLANNING

Moderator: John D. Summerfield, General Manager, KPBS TV/FM San Diego. Consultants: Don Williams, Business Manager, Mission Cable TV, El Cajon; Robert Montague, Motion Picture/TV Executive, General Dynamics and President, Independent Film Producers Assoc.; Jay McMullen, Executive Producer, CBS-TV, Distinguished Visiting Professor, San Diego State College; Ray Watson, Business Manager KOGO AM-FM-TV; Susan Ramsey, Career Counselor, San Diego State. Reported by Don Naughton.

This was a special student session, the topic being "Career Planning". The session discussed the topics of, "What a student always wanted to know about radio, television and film." Also it covered the downfall of students being forced to choose a major and state what their lifetime goals are going to be without really knowing what they are getting into.

Donald Williams talked about the fantastic future of cable TV which will be in great need of telecommunication majors who are orientating their studies in the fields of management, production, research and marketing. Mr. Williams went on to say that he felt that cable TV will soon be employing many young people as cable TV expands.

Mr. Robert Montague spoke on the topic of films, its history and development and the outstanding future which lies ahead. Mr. Montague believes that the field is also expanding, and for those people who have the artistic abilities and the willingness to work hard there will be great opportunity.

Mr. Jay McMullen said at the present time there is a slump in employment but jobs in this fantastic career have always been hard to get and just as hard to keep. He also believes that the future is bright for young educated people in the radio and television major.

The final speaker was Miss Susan Ramsey who is a career counselor at San Diego State. Miss Ramsey gave some important tips on seeking employment. She gave names and addresses as to where a student should inquire for employment in the field of educational and commercial television.

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RACISM IN BROADCASTING

Speaker: David Crippens, Producer KPBS-TV San Diego.
Reported by Murray Nicholson.

This was a seminar in which minority views were expressed with the hope that there might be some enlightenment on the problems of racism in broadcasting. What essentially was said is that broadcasting has to lead the way to bring about change for minorities.

David Crippens, producer at KPBS-TV in San Diego, emphasized that broadcasters cannot wait the way other industries have but that they must lead the way. One of the ways in which they can help is to bring more minority programming to television and to hire more people from minority groups. More programs like "Black Journal" and "Great American Dream Machine" should be seen and more than just once a month or once a week. The views and life styles of any ethnic group cannot be shown or any real communication made in one or two hours of programming once a month or once a week. What these minority groups really need is a commitment on the part of broadcasters to bring about change. Crippens stated that from the experiences he has had in broadcasting that there has not been that firm a commitment for minority programs.

Minority programming has two functions: One, that minority programming serves as a window to the outside world---to let the outside community know what is happening and to let them learn about minorities.

The other function of minority programming is for the community itself. It must act as a mirror for the minority groups to see themselves as a people---the way they really are. Ideas of a minority community must be shown since they are reflections of that community and should be shown as such. If a station will not permit such programs or if they will not go out and look for such things, according to Crippens, they are racists. There must also be fostered, within a station, an air of creativity for the minorities, or again they are racists.

Minority programs must be supported through individual station funding and the Corporation for Public Broadcasting. The question is not will they support minority programming but how will they support it? The airways belong to everyone, not just one portion or segment of society. A broadcast licensee must consider the responsibilities that they have. No doubt there will be an emphasis on programming that relates to local communities and if the community is dominantly minority then the programming must reflect the needs of that minority group. Broadcasters should be forewarned that minority organizations are going

to challenge station license renewals if they have no minority programs or if they are not making a policy to hire minorities.

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CRITERION TESTING

Chairman: Walter Robson, Hewlett Packard, Palo Alto, California
Speaker: Edward Eisman, Education Specialist, Naval Amphibious Schools, Coronado, California. Reported by Martin Gienke.

Dr. Eisman began this session by telling of his work in the area of media and human behavior. He claimed people were continually "pinging" ITV. They found many faults in it and avidly criticised it.

The title "Criterion Testing" was a misnomer for the session. Dr. Eisman preferred to call it "The Use of Criterion Testing as a Means of Evaluating ITV and Cost Effectiveness."

TV has traditionally been thought of as having two components: Medium and message, or software and hardware. Dr. Eisman suggests we consider a third element, that of effect. How does ITV change a viewer's behavior? The element of effect is a function of the other two elements. In commercial TV it is measured in terms of sales.

The criticisms levied against ITV are based upon the stimulus, the characteristics of the media. Only infrequently are judgements made in relation to effects. "Sesame Street" was successful because people liked the presentations, not because of its effect.

In the commercial field success means survival. You can survive if you know the objective and meet it. In ITV we don't know what the objectives are. At the Naval Amphibious School, where Dr. Eisman works, they determine behavioral objectives, establish a criterion test, and judge the results of behavioral change. In the end they have a V.I.P. (Validated Instructional Package). They determine the course curriculum and lesson plans specifying particular behavioral objectives. They then make up the criterion test and approach the question of which medium will most efficiently and effectively meet the objectives. The TV producer/director, for instance, discusses content with content specialists. He develops a trial video tape and it is tested with a small group of students. It is revised and tested until the lesson meets the standards. They have an effective model for development because it is predictable. It is difficult to disagree with its success.

When making a medium determination one must choose the relevant media and stimuli. In regards to ITV they ask "Can it teach?" "Is it cost effective?" TV is effective if the student exhibits a set of behavior after TV that he did not before. As an example, Dr. Eisman used training swift boat operators to

use flashing light signals. In the traditional teaching method the students weren't learning the method, yet they were being graduated from the class. A video tape lesson was developed with the objective that the student would be able to receive messages at three words per minute. Ninety percent were able to do this at the end of six hours of instruction. Forty percent were able to go as high as five words per minute. Tv does work. It can teach.

Unfortunately it is difficult to convince auditor-types of this. They ask, "Does it cut training time? No. Is it less expensive in terms of equipment and instructor preparation time?" No. It does free the instructors for other work but that doesn't really save any money. The tapes are passed around to other training facilities and the other instructors strengthen their courses but it still doesn't save money.

In the question of cost effectiveness it must be compared to something. There is nothing to compare it with. You can't compare conventional teaching that didn't teach with ITV that did teach. ITV can be used for self appraisal of lessons but again there is no savings in student or instructor time. If there is instructor or student man hours saved, then a comparison can be made. You first determine the total cost of the ITV system and development of the programs. You then subtract that from the student and instructor costs which were saved as a result of the time compression or shortened learning time.

It would be more profitable to ask, "Are we taking full advantage of the media? Are the costs involved commensurate with the value received?"

The meeting was then opened to questions. The comment was made that teachers who have been teaching history, etc., didn't know how to develop behavioral objectives. They'd never taught by them. Dr. Eisman replied that it is difficult. People say you can't write objectives for attitudes such as the student will enjoy or appreciate something. It is difficult to test. However, there are acts that are observable. They may be an indirect result of the teaching such as the number of books checked out from the library concerning a certain topic. A further comment from the audience was that teachers liked history possibly because it helped them understand people or themselves better. The objective then was to understand the life process better, to become a better person. Other members of the audience agreed but commented that they were forced by cost accountants to show effects.

Dr. Eisman was asked to comment of effect of the viewing environment. He said he didn't make any changes for TV in the classroom. It substitutes for the teacher. In other circumstances it may be different. An audience member responded that often with TV, a class member feels more responsibility to watch because if he missed something he couldn't ask a question. It was asked if some students might become "up tight" because the material wasn't paced for them. Dr. Eisman commented that they make many changes in the ITV material along the way to account for this.

It was said that ITV and criterion testing is here, but how do we get it into the curriculum? How do we convince the curriculum people of its values? The answer was that you can't just tell them, you must show them. Dr. Eisman commented that there aren't many success stories in this regard.

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SUPER-8 IN SCHOOLS

Speakers: Kent Bishop, Director of Audio-Visual Services
University of California, Santa Barbara; James Leaman, TV &
Motion Picture Producer, University of California, Santa Barbara.
Reported by Tom Devaney.

Mr. Leaman explained, because of University budgetary problems, the decision was made to use Super 8 whenever possible. In many situations sixteen millimeter film was not necessary for the accomplishment of classroom projects. Because much of the use of film dealt with the presentation of single-concept materials, Super 8 film proved to be effective. Mr. Leaman spelled out five basic areas in which this film is currently being used on the campus: 1) In audio-tutorial programs, 2) in faculty created films, 3) in conjunction with video-tape presentations, 4) as a tool by which students might pursue in depth some aspect of their course of study, and 5) as a relatively inexpensive means of generating original materials for supplementary use in formal courses of study.

The system uses sound only minimally. Most sound is added to presentations through the use of cassette recorders. Most filmed materials, therefore, lend themselves to conventional sized classes as opposed to large lecture halls. With technological advances, it is anticipated that sound-on-film will be used to a greater extent in the future.

TELEVISION AND SUPER 8

In experimenting with the available television equipment, it was discovered that Super 8 may be converted to video-tape under certain conditions. Using a Honeywell variable speed projector, Mr. Bishop was able to eliminate the scanning problem in converting film to video-tape. If the film is shown at fifteen frames per second, the shutter bar is virtually eliminated from the tape of the film. This discovery has opened up more areas of exploration in the uses of Super 8 and film. A demonstration tape was shown in which this system was employed. The film was picked up on tape directly from an Eastman high intensity projection screen. The resolution was very good. The discovery of this process has helped to enhance television presentations on campus, since it now brings film cheaply into productions. Some work is now beginning on the use of animation using this type of film. The possible avenues for exploration in this area are limitless.

PROBLEMS IN UTILIZATION OF SUPER 8

Budgetary limitations have curtailed the purchase of equipment for the program. There is not enough hardware to provide students with equipment of demand. Individual departments are now being encouraged to purchase their own cameras and film and to use the Learning Resources people as advisors. While there is still some faculty resistance to the use of film in classes, younger professors are now beginning to use the services of Learning Resources more fully.

There are some technical problems which have to be overcome. There is still not available a good duplicating process for color film. Because of the high contrast of the Kodachrome Two film used, multiple copies of Super 8 film are not readily available. Black and white film can be duplicated, but the use of this type of film is not extensive in the program.

Because Santa Barbara is not close to a metropolitan area, some problems existed in the processing of film. The cartridges used in Super 8 had to be procured from Los Angeles, a distance of one hundred miles. The purchase of a film loader, now available for Super 8, alleviated one of the major problems, that of transferring film to the cartridge-loop.

THE FUTURE OF THE PROGRAM

Both participants were optimistic about the direction in which the program is headed. Some faculty members have produced outstanding single concept films for their classes. Student interest in curriculum has increased because of the interest generated through these short films. But, more importantly, student film-makers have produced quality films for their classes. Motivation to learn has been increased in many instances. Some professors are now accepting films in lieu of term papers. The College of Creative Studies is encouraging self expression through the medium of inexpensive Super 8 film. And, as mentioned earlier, resistance to this new medium of learning is gradually breaking down. Both gentlemen felt that if some of the financial limitations could be overcome, the program could become a great stimulus to learning in higher education.

The technical data pertaining to the utilization of Super 8 film is available in a utilization guide published by the Department of Learning Resources, University of California at Santa Barbara. At present, this guide is available upon request at no charge.

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STUDENT-OPERATED CAMPUS RADIO

Moderator: Ken Kramer, San Diego State College.

Panelists: Jerry Zullo, San Diego State College; Robb Wilson, General Manager, KCR, San Diego State College

Jerry Zullo began the session talking about programming. In campus radio you have to find out what the audience wants. Sometimes audiences are captive, as they may not be able to receive other signals within the dorms. Another advantage is that you can meet your audience directly and they are readily available.

You can't let disc jockeys run just what they want. You need to have a definite format. It helps the disc-jockeys as well as giving the station a "sound." In developing the format you should first size up the market in the city, find a hole in it, clearly define it, and fill it. Don't be afraid to mix different music types.

Localization of the sound is very important. Don't imitate other stations. That doesn't mean you have to be unprofessional but rather, don't give the audience what they can already get. Play up campus news and events, be receptive, and set up feedback systems with your audience.

For a campus radio station you have to get records. Here are some helpful hints when doing this. First, get in touch with the right person. Don't just write to Capitol Records but find someone there to write too. Billboard or Cashbox list distributors. Get in touch with other college stations and find who their contacts are. Use your station letterhead, but let just one person keep in touch. The record companies will often be confused if they're getting letters from five different people at your station.

Tell the record companies how big your potential audience is. Give them your format, hours, type of transmission, etc. Work closely with organizations on campus that arrange concerts. You might even approach local stations for surplus records. They can donate these as a tax write-off. You can often tape records although tapes are more difficult to work with on-the-air. Once you're on the mailing lists for records keep on the good side of record companies. Acknowledge each shipment in a personal manner, not on a ditto sheet. Cite specific records. Give all the records a fair chance - at least listen to them all. Don't throw any records away for at least six months, they may become hits.

When you write to record companies for promotional copies as give-aways use the same procedure. Write and ask for the records as give-aways, state exactly how they will be used and follow it up with a thank you letter naming the recipients. This will avoid accusations of payola.

The biggest gripe record companies have is they are sure records are being stolen. You must have a tight system for security. Also they need to know who's running the station. When you get records listen to all of them, every cut. Do this as you go along. Don't let a backlog stack up. Make a weekly play list. On-the-air people won't like you for this but it must be done. Material other than that on the list should be cleared through the program director.

Stay ahead of the competition in the market. Campus radio in San Diego can stay at least four months, and sometimes up to a year, ahead of the local stations because the local stations wait until a record is a hit before they play it. You can build an audience by claiming that you're first. To involve on-the-air people you might set up a record selection committee.

You must be careful of records. Don't play dirty ones or go beyond the bounds of propriety. You may get complaints from the community around the college who may be picking up your signal.

About the program director's role, Zullo said, "He is God! He has to be," The general manager worries about the station in general but if it involves the air sound, the program director should have complete say. Editorials are in the same realm. He should open all packages from record companies and maintain a tight security system for the records.

The meeting was opened to questions at this time. One comment was that there should be another purpose for campus radio besides just music. It is a good vehicle for free expression and documentaries on social issues. Zullo replied that his station was commercial. He agreed that sponsors can hear them but they don't care about content. The station programs for the audience not the sponsor. A campus station shouldn't sound like other stations but should program for the students. At San Diego State students don't want deep social issues so there's no need to broadcast programs about them.

Zullo was asked what "carrier current" is. He replied that it is broadcasting without a license. The transmitter is hooked into the electrical system of a building and the signal radiates through the electrical wires and outlets.

Ken Kramer commented that KCR at San Diego State was a very successful operation. Campus radio can be very significant. In San Francisco commercial outlets and record companies watch San Francisco State College's station to see how records move.

Rob Wilson talked about the commercial side of the operations. He said college radio can be experimental and still be a successful operation.

Commercial radio is a major part of the industry. It is the standard. It has deadlines, organization and pressures. KCR went commercial because of financial problems.

You should do a two-barrel selling job. One, you must sell radio. Local merchants may not believe the low cost advertising and you may have to convince them it really is radio. Also you must sell your particular market. Exactly define who your audience is. Until about a month ago KCR only dealt with 15-20-30 spot packages. Now agencies are becoming interested. They can now do things for trade-out.

Wilson went on to say that salesmen should dress and act professionally. They should be clean and neat. The rate card must look professional. It's necessary to offer 15% commission on sales because selling time is so risky. Give your salesmen a demonstration tape.

After the sale, make sure the spots are run. Give the salesmen production backup. Don't do spots live. Too many flubs are made.

Ken Kramer spoke about administration. He said it is hard to get people to support a station with an audience of only 2,000. He recommended an organization of people interested in the station be formed on campus to obtain such support. Also the group would act as a buffer between purse string holders and policy makers.

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INVESTIGATIVE REPORTING IN COMMERCIAL AND PUBLIC TELEVISION

Chairman: Joe Johnson, Associate Professor, Telecommunications and Film, San Diego State College. Participants: Jay McMullen, CBS Network News and Public Affairs; Peter Kaye, KPBS Television News and Public Affairs.

Dr. Joe Johnson, Assistant Professor of Telecommunications, San Diego State College, welcomed the guests of WEST and introduced the speakers for the seminar, 'Investigative Reporting.' Dr. Johnson said that many years of journalism excellence make up the records of Jay McMullen CBS Network News and Public Affairs, and Peter Kaye, television news and public affairs, KPBS San Diego. "Jay McMullen has had some 15 million dollars in law suits filed against him," Johnson said. None of the law suits have collected from McMullen or CBS. McMullen has been in broadcasting 28 years.

Peter Kaye is the head of public affairs for KPBS and he was former political editor of the "San Diego Union." Johnson suggested the meeting be conducted informally as a question and answer session. All agreed but no questions were asked of the guest speakers until later in the session. McMullen triggered the meeting to life with a definition of investigative reporting. "It always begins with a question; and the answers can't be found in libraries," he said. McMullen knows from years of experience that a reporter has to "dig for facts, marshal the evidence and interpret the findings to see if there is a story." McMullen turned the floor over to Peter Kaye for his observations about reporting.

"Investigative Reporting is like all other reporting; except the answers are not readily available," Kaye said. He continued; "A reporter will have sources in the community to go to for facts. You should protect a source and be fair." Kaye feels a good investigative reporter should have, "A sense of moral outrage and perseverance."

One topic led into another as the reporters explained the business of finding truth. Both men agreed it was damaging to accrue law suits. McMullen said, "You may have to spend time in court or be asked to appear before the Grand Jury, and you always have to pay lawyer fees whether you win or lose." The very fact that in broadcasting "time is money" was touched upon. McMullen said that after working on a story for weeks you may find yourself at a dead end, with no story. Kaye and McMullen agreed that a reporter should first be accurate. "Call, call, call, and cross check all sources of information," said McMullen.

Peter Kaye believes the educational station has a unique opportunity to engage in investigative reporting. "KPBS is not funded by city or local government; therefore, we can cover stories the network and local commercial stations do not," Kaye said. He felt that one of educational broadcasting's major functions should be investigative reporting. Only in depth news should be tackled and then on a local level - although 'N.E.T. should do the news that commercial T.V. can't or won't," Kaye said.

The seminar's hour was quickly coming to a close as questions flowed freely from the audience. "What about staging of news in Vietnam?" a Vietnam veteran asked from the audience. McMullen said staging had always been a problem in reporting the news. "People don't act the same in front of a camera," he said. The veteran explained, "I helped stage stories in Nam." McMullen said, "At times things are staged; a reporter has to meet his deadline even if the war has slowed." Kaye said, "It's harder not to stage than you think." He explained that when preparing for their broadcast, it becomes difficult to use props or other devices used in entertainment television for fear of giving the audience the feeling that the show is staged.

The seminar heard a variety of topics discussed including the credibility of the modern press, why news is reported at all, and how to get both sides of a story. In interest of space, this reporter will cover the question, "How do you get both sides of a story?" This question stirred the audience because of Peter Kaye's remarks. He said: "I'll use various tactics such as when talking to a source who is reluctant to answer questions; I simply say, 'If you don't answer the questions we'll tell what we know.'" This way of getting answers to questions is effective because most people when cornered would rather have all the facts presented than half the facts. Kaye explained that, in his view, when covering hard news, if a reporter makes an effort to obtain the opposing side of an issue then "your responsibility is complete." However, "If you zero in on a guy when doing an investigative report your responsibility is to balance." Many times hard news is presented from one side, other points of view are lacking or absent altogether. Kaye feels when doing an in depth report this should never happen.

These methods may seem slightly less than ethical. However, both reporters pointed out getting information from police, local, state and national governments leaves something to be desired. The above tactics are used by the investigative reporter to find the truth.

The seminar closed with a question mark in the minds of all that attended. What can be done to boost broadcast journalism's image in the near future? According to McMullen, "Journalists are under attack because of treacherous polarization due to factions of society pushing their own thoughts and ideas. Therefore, media are caught in a tug-of-war as the public charges and counter-charges the press and wonders about credibility of news."

EDUCATIONAL BROADCASTING ACROSS THE BORDERS

Speakers: Richard H. Bell, Director, Instructional Media Services, University of Calgary, Canada; Julian M. Kaufman, Vice President and General Mgr. XETV, Tijuana, Mexico. Reported by Larry Peterson.

The session of Broadcasting Across the Borders covers reports from Canada and Mexico.

Canada is still a growing country, although it is the fourth largest country in the world in geographical size. It has roughly the same population as our state of California. Dick Bell, of the University of Calgary, recently gave a report on the present situation of educational broadcasting in Canada. Most of Canada's population is spread out rather thinly, except for the metropolitan areas. This poses a problem in itself for educational radio, not to mention educational television. Nonetheless, educational radio has had a long and honorable history in Canada, and was the only outlet until the advent of educational TV. This came fairly recently, because Mr. Bell estimates that Canada is some twenty five years behind the U.S. in the development of ETV.

Educational radio reached some 394,000 students in some 13,000 classrooms in 1970. This marked a five percent increase over the coverage of the previous year.

Although Canada has always had an outlet for public broadcasting, there are several factors that have put the steps on this development. Canada has two national television networks, the CBC and a commercial network. But due to the governmental setup of broadcasting in Canada, broadcasting itself is seen to be a federal responsibility. Licenses must be granted by the federal government of Canada, and it is illegal for a provincial institution such as a university to have a broadcast station. Because of this, there was no ETV station in Edmonton, Alberta, until spring of 1970. Several daytime hours each weekday are now devoted to educational programming in Edmonton. Toronto followed, and now a full-time ETV station exists in that city.

The CBC network of Canada does one half hour of ETV broadcasting per day. This year, due to the increases of stations on the air, 439,000 students in 14,000 classrooms are being reached. This is a thirty five percent increase over the total 1970 reach.

Cable TV is seeing a revolution in Canada, as well as in the United States. There is a growing trend toward cable ETV in the metropolitan areas of Canada, where

cable TV is feasible due to a large population. In Alberta, the city of Calgary already is wired for four channels. By 1972, a major program expansion is planned for already existing and future cabletelevision installations.

The equivalent of this country's FCC is the Canadian Radio and Television Commission (CRTC). This year (1971), a law was passed that stated that all Canadian radio and television stations must carry at least 60% Canadian-originated programs. This law was aimed at stopping U.S. produced shows flooding the Canadian market. Unfortunately, due to the present Canadian ETV setup, educational shows vie with commercial shows in many cities, on commercial stations. If there were a question of which show should go, Bonanza, or some ETV show such as Sesame Street, the ETV show would go off the air for obvious economical reasons. There is a chance that ETV may become crowded out in some Canadian cities, due to this law which is primarily aimed at the commercial U.S. television show saturation in Canada. However, the term 'Canadian-originated program' can be defined broadly, so Mr. Bell thinks that the law will not be as devastating as originally feared. This law, of course, shows the concern that Canada is becoming American dominated.

The field of film production is very strong in Canada. There are several federally-sponsored programs for producing educational films in Canada. However, due to rising inflation and a general tendency to curb excess spending, the CBC and the National Film Board are now operating under restricted budgets.

So far as pilot TV projects are concerned, the Provincial Department of Alberta has been doing some work along these lines. There has also been a dubbing center set up in Edmonton by the Alberta Department of Education. A tape library is expanding in Edmonton, to serve the growing needs of the country. In the very near future, all metropolitan areas will be covered by cable, and the rural areas will be served by mailed video-tapes.

There are two Canadian ETV groups in existence, and Mr. Bell hopes to see the merger of these in the near future while ETV is still in a relatively early stage. The merger will minimize future ETV problems, and will help to unify educational broadcasting in Canada.

There is quite a difference between Canadian and U.S. institutions of higher learning when it comes to courses in professional broadcasting. In Canada, courses in radio and TV are taught at the institutes of technology, and there are no courses of this nature offered at the country's universities. For this reason, Mr. Bell contends that Canada lacks the university levels of education in not only broadcasting, but also in journalism, that the United States has. He feels that Canada could benefit greatly if they instituted a series of broadcasting courses in the universities.

Julian Kaufman, vice president and general manager of XETV in Tijuana, B.C., Mexico, commented on educational broadcasting south of our border. As it turns out, Mexico is quite a bit behind the United States and Canada in educational programming. On Feb. 28, 1971, some forty odd Mexican stations started to reserve a five hour block of time on Sunday afternoon, to be filled by programs from Mexico City, via network feed, which consist of a diverse series of educational program material. This was a direct outgrowth of legislation by the Mexican government. The time that has been reserved is considered prime time for Sunday viewing in Mexico, Mr. Kaufman added. The time segment is from 5 to 10 P.M.

Julian Kaufman also added that a long-term project, a full-time educational network, to reach all of Mexico, is currently being planned by the Mexican government. This will be accomplished even if 100 watt UHF translators have to be installed in remote areas of the country.

The program material for the first five hour segments will be material mainly from the elementary and secondary school level, and science courses such as physics and chemistry will be taught. According to Mr. Kaufman, Mexican ETV will be the next Paul Bunyan or Green Giant, for he says that it seems to be advancing at a pace which will be somewhat amazing to its neighbors to the north, the U.S. and Canada.

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ARTICULATION FOR TWO-YEAR AND FOUR-YEAR
BROADCASTING STUDENTS

Speakers: Lynne S. Gross, Instructor, Long Beach City College;
Dan F. Baker, Instructional TV Coordinator, California State
College, Long Beach. Reported by Philip Ross.

The main subject of this session was a discussion on the best procedure for standardization of lower division telecommunication courses in both two and four year colleges. The goal of this standardization is to make it easier for two year college students to be able to transfer with full credit to a four year college in the State of California.

The following is a summary of the discussion: 1) There is need for a constant study into the way telecommunication courses are being presented. These should be changed when a change is in order. 2) It is very important that private schools like U.S.C. should be a part of this standardizing. 3) Film production should be a part of more two year programs.

For almost the first time, teachers from two and four year colleges had the opportunity to accomplish some real communication, and they failed. The participants spent far too much time defending their programs at their college instead of trying to co-ordinate instructions on a state level, which was the basis of this session in the first place. Almost the full two hours was spent on the semantics of names of courses. Teachers wasted time arguing on keeping a certain name for a course, when what really is important is course content.

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**CHILDREN'S TELEVISION WORKSHOP
REPORT: SESAME STREET AND THE NEW READING SERIES**

Chairman: Maynerd Orme, KCET, Los Angeles.
Speakers: Edward L. Palmer, Director of Research, CTW; Robert Davidson, Director of Development, CTW; Samuel Gibbon, Producer, Reading Program, CTW. Reported by Richard Blankinship.

Bob Davidson related that CTW's chief interest at the present time is the development of the New Reading Program, however, plans are in the mill for a third season of "Sesame Street." He forecasts no major changes in format or distribution of the children's show. He also said that preliminary results of a nationwide survey shows a 20% increase in "Sesame Street" audience size over last year.

Specifically with regard to the New Reading Program, Mr. Davidson said the program will focus on 7 to 10 year olds, with the goal of supplementing the reading introduced to them in the public schools. The broadcasts will be one-half hour in length, and will air beginning Monday, October 25, 1971, over the PBS Network.

Following a short pilot film, Sam Gibbon, who is Senior Producer for the New Reading Program, briefly discussed the format of the new program. He said they will be fast paced, in the manner of Sesame Street; and will utilize a variety of production techniques. The series will have live characters much the same as "Sesame Street". Mr. Gibbon said that this summer a five program series pilot will be shown over the PBS Network in order to sample the target audience. Effectiveness in education and overall interest will be measured.

Dr. Edward Palmer, Vice President of CTW and Director of Research, said that his staff plans extensive pre-testing of every segment which is produced for use within the new series. Those that meet his standards will be kept. Those that do not will be discarded.

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MEDICAL TELEVISION

Speakers: Hal Riehle, Chairman, Division of Instructional Media, Mayo Clinic; David Caldwell, M.D., Associate Head, Medical Media Network, University of California at Los Angeles; Ellis R. Wayne, Ph.D., Academic Administration, Office of Medical Education, California College of Medicine, University of California at Irvine. Reported by Larry Petersen.

The seminar on Medical TV was divided into three parts: Dr. David Caldwell talked about the Medical Media Network; Dr. Ellis Wayne's report concerned the installation of a small microwave network at the University of California at Irvine; and Dr. Hal Riehle spoke about the Mayo Clinic at Rochester, Minn.

Dr. David Caldwell stressed that doctors and nurses all over the U.S. have to keep up with the latest developments in the field of science and medicine. This is quite some task, considering the number of hospitals in our country, let alone doctors and nurses. However, Dr. Caldwell seems to have come up with a very feasible and workable system known as the Medical Media Network.

The Medical Media Network, administered by the UCLA extension service, started out as an attempt by eight medical schools in California. More recently, films have been made using Super 8 or video tapes which are distributed to different markets. For the most part, these markets are not top ones such as New York or Philadelphia. They have the one purpose in mind of bringing continuing education to doctors and nurses.

Dr. Caldwell points out that this system will not work properly unless someone qualified to present the lesson takes this responsibility each week at the respective hospital that makes use of this service. The person is usually more effective if he or she has had teaching experience.

At present, 200 hospitals in 43 states are reached by Medical Media Network cartridges. The doctors of a respective hospital view the cartridges and take the test, which then gives them an idea of how they stand in relation to current knowledge. Also included is information on some of the latest medical developments.

What do you do if you have sixty-four med students and your medical center is thirteen miles away? This is the problem that confronted Dr. Ellis Wayne of the University of California at Irvine. The answer? A miniature microwave network which will link a classroom with the medical center. This is exactly what Dr. Wayne did to solve the problem. Today, a small microwave system

that is 9.9 miles long extends from the Orange County Medical Center in the city of Orange to the UC campus at Irvine.

With this new microwave setup, the basic medical school course is being changed. The medical school of the past consisted of lab courses for the first two years followed by work in a hospital for the last two years. Now, at UCI, very basic courses are taught in the first year followed by clinical experience in the last three years. Dr. Wayne added that the school wanted students to be exposed to real human patients as soon as possible. The new microwave system does exactly this. The system, fully color, can be made to function from any part of the Orange County Medical Center. It is then relayed via microwave to UCI. Both picture and sound are sent to the school, and an intercom line goes back to the medical center so that the medical students can talk to people at the medical center.

Besides the microwave system, the school is also equipped with several studies, VTR's and cameras, so that remote operations may be recorded, or dummy demonstrations of such can be staged. Dr. Wayne revealed the cost of this seemingly elaborate system was \$150,000; comparable to many black and white set-ups of equal magnitude.

Dr. Hal Riehle concentrated his discussion on how TV is being used currently at the Mayo Clinic, and also gave a brief summary of what the Mayo Clinic is doing and how they are doing it. All television and film productions are an output of the Division of Instructional Media of the Mayo Clinic.

The Mayo Clinic is quite large is area including the main building, a nineteen story structure; the Plummer Building, where the Division of Instructional Media makes its home; the Medical Sciences Building; the Harwick Biometrics Facility; the Damon Parkade; and two hospitals which have a combined capacity of 1600 beds. Also, there is the Mayo Graduate School, which has 750 residents.

The Audio Visual Center in the Division of Instructional Media puts together tapes that are sent all over the world. The Mayo Clinic also maintains an audio recording service, and also a closed circuit TV affiliate service. A full TV facility is being designed and installed which will be used in psychiatric observation microteaching, and also interaction between patients.

An extensive museum which strives to explain the complicated medical world to the layman is abundantly furnished with 3-D models which are painstakingly constructed to show the finest detail. Such exhibits as a 3-D heart diagram, an inner ear diagram, and an appendectomy are only a few of the many that are constantly being added to the Mayo Medical Museum.

One of the functions of the Mayo Medical Center, according to Dr. Riehle, is

to communicate current information to the public. He also stressed the fact that people are badly needed in the field of medical television.

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WHEN THE MASSES USE THE MEDIA

Chairman: Elinor Richardson, Consultant-in-Charge-Television
Los Angeles County Schools. Speaker: Grant Masland, Doctoral
Candidate, Claremont Graduate School. Reported by Larry Pollack.

Mr. Grant Masland brought to the San Diego WEST Conference a different concept of the media than most of the participants had been discussing. His thought was, what happens when the subject of a media study becomes the observer? He used the example of a show that was being prepared on the Black Panthers in Hartford, Connecticut. The camera lens was looking at the Panthers through the eyes of the white camera men and director. The Panthers felt that it should be done another way. They wanted the lens to look at the Panthers through the eyes and direction of the Panthers. When the filming was complete, each of the two groups discovered how differently they perceived each other. Not only did this provide an interesting comparison of views but a better understanding of each other.

Mr. Masland feels that this concept can be tried in many other areas, be it in the classroom, government or any other part of our society. Essentially people equipped with inexpensive portable Video Tape Recording (VTR) equipment can go out and look at society and bring it back to show to others in an effort to gain an awareness and understanding by the elements of the society they are looking at. These people would not be skilled professionals with fixed concepts on shooting techniques or artistic flair. These should be people from all elements of society using film or Video Tape for their own education and that of society. Mr. Masland feels that in these cases we must bring television out of the theatrical and look at reality.

Mr. Masland suggested that you might give a portable VTR unit to a class and tell them to look at things that bother them. Once the students or other people lose the awe of the equipment, significant things can be produced. A new look at an old problem may end the problem or at least give a new direction for solving it.

The seminar may be summed up by saying, should we accept Mr. Masland's ideas, we might be able to launch portable VTR's to search out social change and help solve social problems.

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HOW MUSIC FIGHT/HELPS DIALOGUE IN RADIO AND TV

Chairman: Robert E. Lee, Professor, Telecommunications and Film, San Diego State College. Speaker: Marlin H. Skiles, TV and Screen Composer, Hollywood, California.

Mr. Skiles chose to narrow the field of screen and television composing to dealing with specific pitfalls with which a composer or a producer may have to deal.

1. The majority of producers are too busy to work with or don't care about the details of composing. The composer is then forced to work with few guidelines and no real contact with the producer. He must try to second-guess the producer or rely on stereotyped material. An isolation for the composer is developed and the real needs of the production are never met.
2. Composers may often use orchestral tricks to bolster their own egos. The music doesn't or should not, exist itself as a separate entity.
3. Composers may try to show-off their talent and compose music which is too compelling for the purpose it is to serve.
4. The standard 18 piece orchestra is brass heavy and has limited color possibilities. The music can easily get out of control.
5. Music is often considered a sound effect and a producer's primary concern may be how fast the music can be composed.
6. Current taste seems to use a jazz orchestra for nearly every situation.
7. Certain instruments are fashionable with typestories. Composer must decide whether he can deviate or not because any distraction from the film becomes a liability.
8. When a known composer is hired and given a large budget, he may yield to the temptation to over-write, over-orchestrate, and overwhelm the film.
9. Composers are not taking advantage of the astronomical combin-

ations possible and are writing easy-way-out music, often jazz-type.

10. American composers may be as versatile as those foreign-born but sometimes hindered by reputation.
11. Pre-recorded music may sometimes serve the purposes of a film, but selection and mixing should be done by a music supervisor who has music training.

Mr. Skiles suggested several ways to improve the character and quality of film music.

1. The producer, composer, or music supervisor should work with an experienced composer.
2. Guide the inexperienced composer through the moods of scenes.
3. Make use of music students who are often capable and willing to write for programs.

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**BROADCASTING IN OTHER COUNTRIES:
FAR EASTERN AND GERMAN EDUCATIONAL
TELEVISION AND RADIO**

**Speakers: Richard Meyer, Director of School Television Service,
WNET-TV, New York; Elizabeth . Young, Stations Relations,
National Public Radio. Reported by Robert Ewing.**

Speaking on Eastern and Asian Educational Broadcasting, excluding Japan, Dr. Mayer states that the use of broadcasting by UNESCO has extended education to all Asia. In India, the use of radio has reached all rural areas and television is established in many cities. The Open University has been established in Delhi for over seven years. Singapore has the most sophisticated educational system in Asia. Television is available but the teachers have not been trained to use it thus resulting in poor learning response.

Radio programming is available in Manila with plans for a UHF ITV system. In Thailand there is a problem of foreign currency to buy equipment and so they must rely on equipment donations from abroad. There are many programs for increasing the performance of education by television and radio on the elementary level. In Bangkok film is being used for educational purposes.

On the future of broadcasting in Asia, Dr. Meyer stated that radio will soon reach all rural areas and that television will be increasingly used in instruction. More training programs for teaching educators in the use of ITV are being planned. The biggest problems are administrative support and the shortage in the number of educational broadcasters and receivers.

Speaking of German broadcasting, Elizabeth Young told her audience: In Germany television is under a public corporation in each of the eleven states. A tax is charged for use of the programming. Commercials are also now helping to finance the system. There are three major divisions in German television: Non-Commercial, Commercial and ETV.

The present non-commercial system was completed in 1949 and consists of nine separate, privately controlled systems. Each system is governed by a council of elected members. The National Association of Broadcasting is the ARD, to which each of the nine systems send a representative.

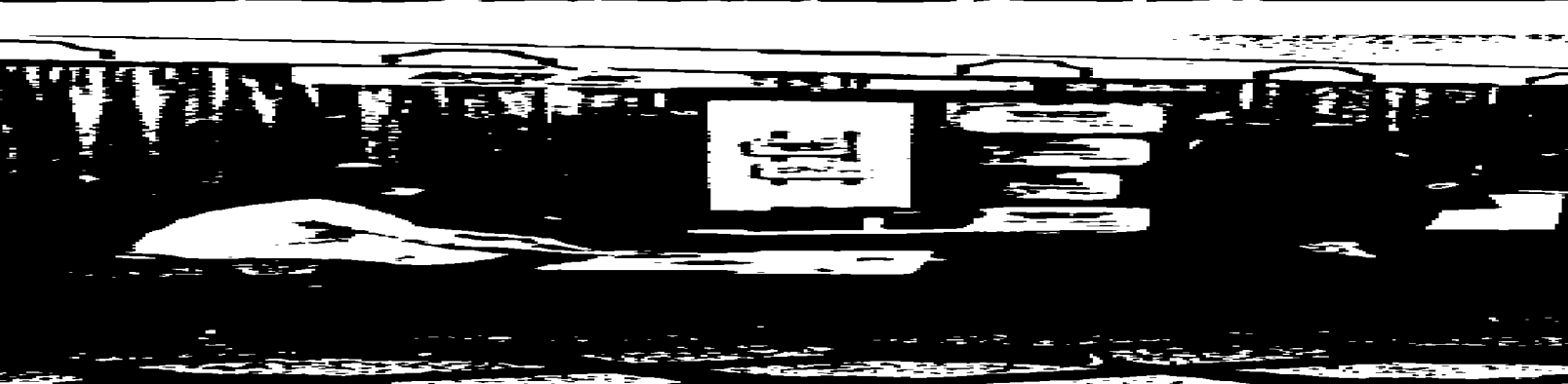
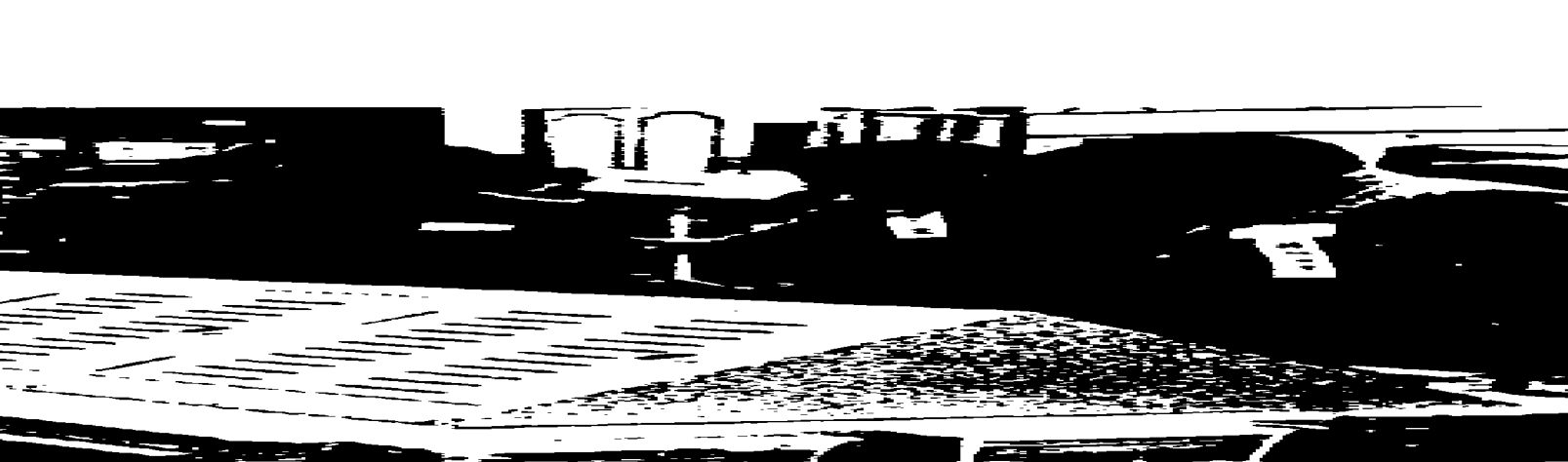
There are two national networks in Germany, twenty million radio/television licenses and an audience of fifty million. Eighty to ninety percent of the programming is now in color although the number of color receivers is very small.

The second system is the Commercial Broadcasting - ZDF. Advertising is totally independent of the broadcasting companies and the actual commercials are kept separated from all programming. There is no mixture or identification between the two. Although the stations do not own the advertising companies for income tax reasons, they do control them.

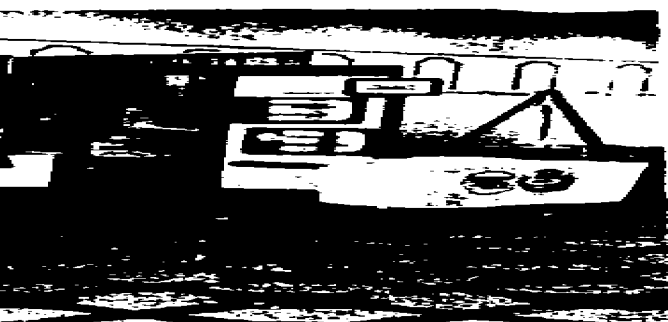
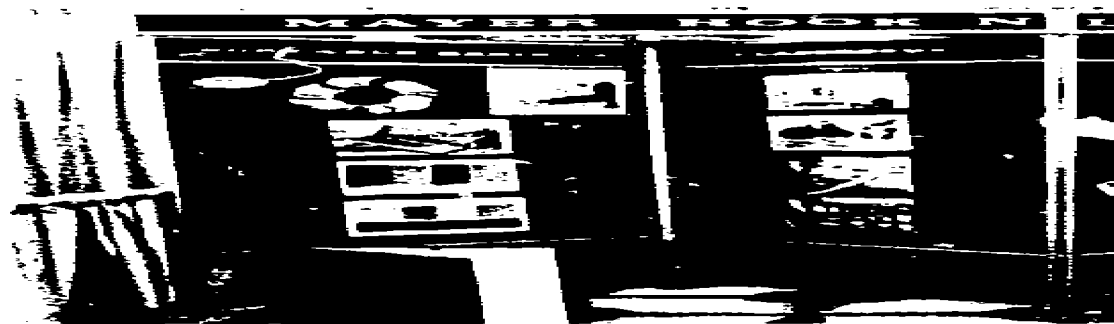
Approximately 15% of all programming is news and editorials. Docu-dramas and dramatic productions are another high budgeted area. The number one program type is crime and detective.

The third system is the ETV on UHF frequencies. The system has been poorly promoted and receiver response is low. ETV is used mostly for adult education programs and in the cultural assimilation problems Germany is having with migrant workers in the German society. Because the educational system in Germany is decentralized, all ETV programming is based on the local education development programs of each state.

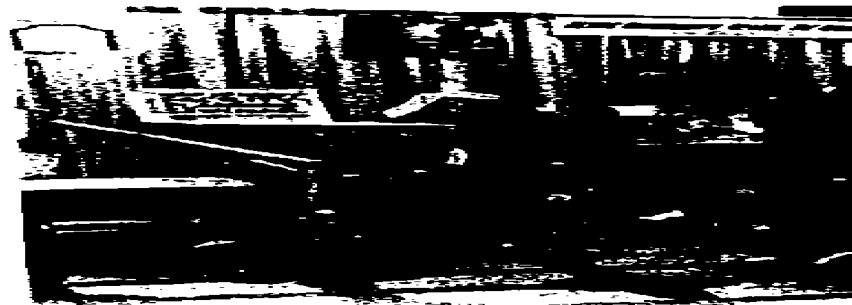
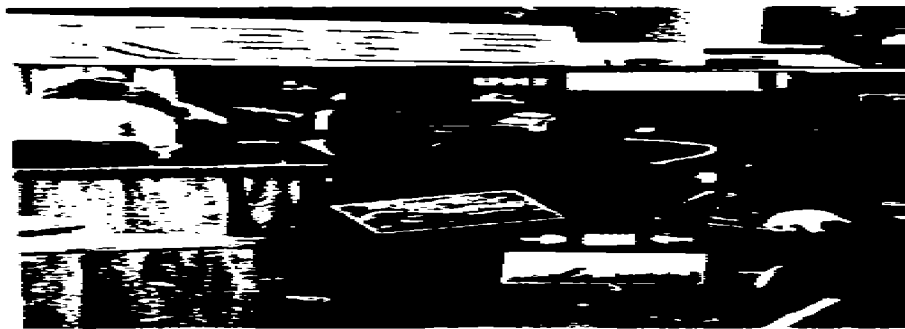
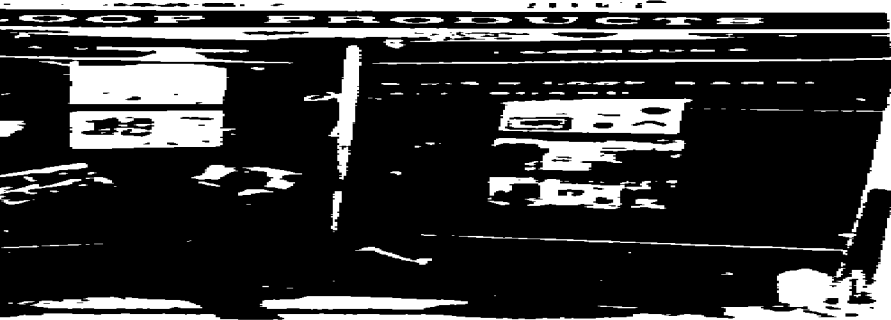
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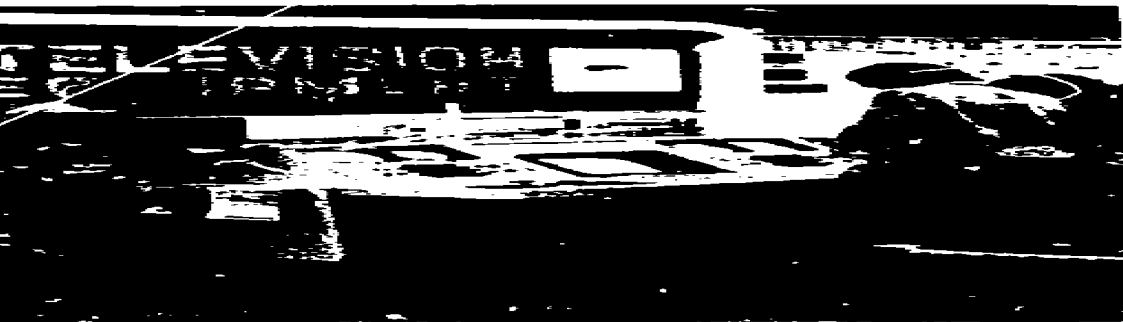
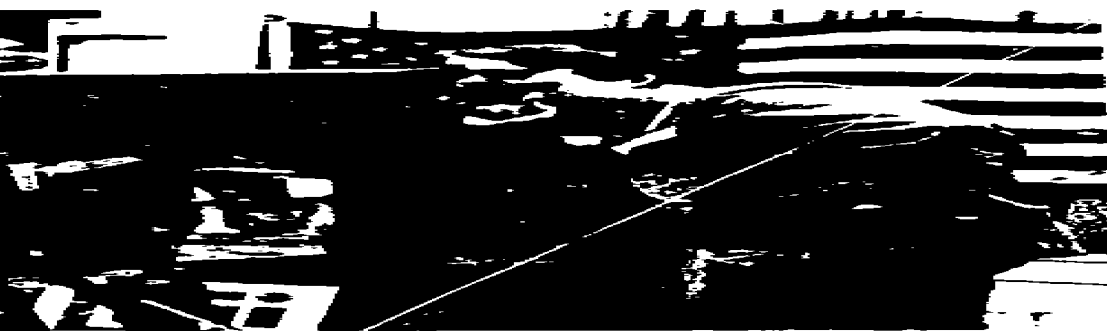


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Century Strand, Inc.
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Commercial Electronics, Inc.
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Color TV cameras

**Community College Telecommunications
Association of California**
169 No. Shaffer, Orange, California
Information on Friday TV Facility Planning
Seminar.

Cunningham Corporation
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Monitors, switchers, camera and lighting
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Dynair Electronics, Inc.
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Educational/Instructional Broadcasting
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Educational Television
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Information on Educational Television
magazine, and ETV Newsletter.

Great Plains National Instructional TV Library
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Kliegl Brothers
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MPA II, Inc.
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Lafayette, Ind.
Recorded TV programs for use in classrooms.

Q-TV Sales and Distributing Corp.
342 W. 40th St. , New York, N.Y.
Promptor system, videotyper, duo-crawl,
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Reynolds Printasign Co. ,
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Graphic typewriter

**San Diego State, KPBS-TV-FM, and San Diego
Area Instructional Television Authority**
5164 College Ave. , San Diego
Information on educational TV and radio in San Diego.

Telemation, Inc.
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Telestrator Industries, Inc.
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Electronic graphics on any background video source.

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Prompting equipment, crawl, retro-reflective front
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**Visual Educom
U.S. Highway 12 East
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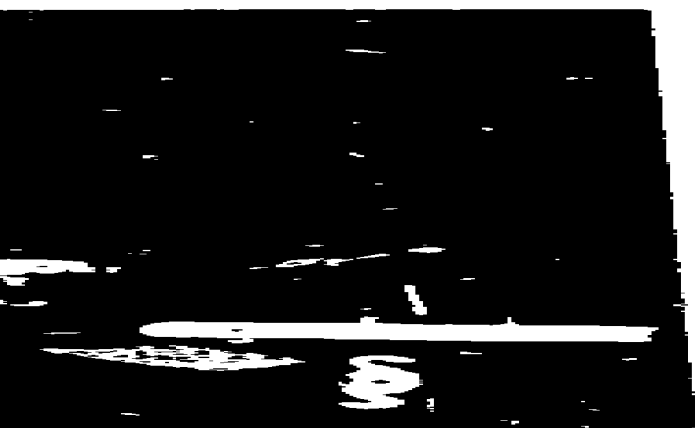
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Best of West





BEST OF WEST AWARDS

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**Public Television
Arts and Humanities Division**

**"The Great Railroad Race"
Unit Productions, Salt Lake City, Utah**

**Instructional Television
Elementary Division**

**"Where the Action Is"
Davis School District, Farmington, Utah**

Secondary Division

**"Impossible Journey"
Utah State Board of Education, Salt Lake City, Utah**

College Division

**"The Happy Journey"
Instructional Television Division of Brigham Young University
Provo, Utah**

Student Production

**"W-2 Form"
Broadcast Department, Brigham Young University, Provo, Utah**

RADIO

Public Radio

**"Interchange"
KUAT, Tuscon, Arizona**

Instructional Radio

"Mr. Kerry"

KBPS, Portland Public Schools, Portland, Oregon

M E R I T A W A R D S

PUBLIC TELEVISION

Arts and Humanities Division

"Dance International"

KBYU-TV, Provo, Utah

INSTRUCTIONAL TELEVISION

Elementary division

"Trash Trouble"

KBPS, Portland Public Schools, Portland, Oregon

College Division

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RECOMMENDED READING

"Color Television in Microneurosurgery," by Dr. Homer G. McClintock & Arthur Kaiser, Industrial Photography, August 1971, pages 23, 44+. (200 Madison Av., New York, N.Y. 10016)

"A Video Dial Select System That Works," by Shirley E. Rosen, Educational Television, September 1971, pages 9-11. (607 Main St., Ridgefield, Conn. 06877)

"Good Training + Television==Comprehension + Accuracy," the training of retail staffs, by Steve Lefkowitz, Educational Television, September 1971, pages 23-27+.

"KIXE-TV: Alive & Well in California," by Stephen T. Gould, Educational Broadcasting, September 1971, pages 23-28+. (825 S. Barrington Av., Los Angeles, CA 90049)

"Report of the First Annual Conference of the Western Educational Society for Telecommunications," compiled and edited by Richard B. Elliott, 164 pages. (WEST, University of California, Santa Barbara, CA 93106)

*Sol * 9/21/71*

CALENDAR OF UPCOMING EVENTS

Sept. 22	Boston, Mass.	Meeting of Northeast Region of Nat'l. Industrial TV Assn. (NITA), at N.E. Telephone Co., 185 Franklin St. Contact: Ed Palmer, 617/743-3132.
Oct. 3-8	Montreal, Canada	Semi-annual Technical Conference of SMPTE & Equipment Expo., including a 2-day symposium on videocassettes & cartridges. (Queen Elizabeth Hotel). Contact SMPTE, 212/TN-7-5410.
Oct. 17-20	Miami Beach, Fla.	Annual Convention of The Nat'l. Assn. of Educational Broadcasters (NAEB). Convention Center. Contact Mary Lynn Moody, 202/667-6000.
Oct. 18-20	Miami Beach, Fla.	Joint General Meeting of Nat'l Industrial TV Assn. (NITA) and Industrial TV Society (ITS). Fontainebleau Hotel. Contact: Richard Van Deusen, 201/336-4418.
Oct. 26-28	Birmingham, Ala.	Meeting of Industrial Audio-Visual Assn. Contact Gerry Hall, Dir. of A/V Services, The National Cash Register Co., Dayton, OH 45409.
Oct. 28-30	Toronto, Canada	1971 Canadian Education Showplace (Exhibition Park). Contact CES, 481 University Av., Toronto 2.

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