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**A PROPOSAL FOR AN EDUCATIONAL
RADIO AND TELEVISION NETWORK
IN IOWA SEPTEMBER, 1966**

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The State Board of Regents and the Iowa Department of Public Instruction have recommended to the citizens of Iowa the establishment of a network of educational radio and television facilities.

This proposal is the result of a year-long study of the state's educational needs by the National Association of Educational Broadcasters, commissioned by the Regents and the Department of Public Instruction.

Essentially, it is designed to help Iowa "stretch" its teaching talent, make available to the largest possible number of citizens—of all ages—our rapidly expanding knowledge, and add a dynamic new dimension to our elementary, secondary, college, university and adult education programs. It is a bold and imaginative step, but it is by no means venturesome. Others have already pioneered the idea. The techniques are proven. The needs are obvious. It is time to act.

WHAT IS THE PLAN?

In essence, the plan calls for an Educational Communication Center located in Des Moines, with television and radio transmitters located at: Des Moines, Iowa City, Davenport, Ottumwa, Corning, Fort Dodge, Mason City, Burlington, Dubuque, Decorah, Waterloo, Spencer, Denison, Council Bluffs, and Sioux City.

This system would provide color video and television audio facilities, two high quality FM channels, two teletype circuits, at least 16 telephone channels and a fault alarm. With some modifications it could be used to transmit core-to-core computer data. Other possibilities include facsimile, slow-scan television, electrowriting and slow-speed data services such as on-line interaction between the computer and the human user at a distant keyboard. Many of these functions might be carried on simultaneously. Others would be accomplished during off-peak hours of the 24-hour operating day.

Interconnection with regional and national networks would be foreseeable.

In addition to the Center at Des Moines, studios at Iowa City, Cedar Falls, Ames, and Des Moines would provide material for the statewide system. While the present proposal does not anticipate production facilities at other transmitter locations, these might come later.

The Educational Communication Center would serve not only as a center for technical and production operations, but also as a center for educational planning and development looking to more effective means of teaching. In addition it would add new subjects and new syllabi to the curricula of the state schools.

Besides studios and control rooms for both television and radio, the Center would include teacher workspace, photography and graphics facilities, tape and film storage, publication processing and dissemination

space, conference rooms, a research and resources library, technical support equipment and offices.

HOW WOULD IT OPERATE?

The proposed network would operate under the jurisdiction of an Iowa State Educational Communications Authority to be established by the legislature. It is proposed that this authority consist of three persons appointed by the State Board of Public Instruction, three by the State Board of Regents, and three by the Governor. Each of the two boards would appoint at least one of its own members, while the Governor's appointees would include one representative from the public schools, one from a private college or university, and one from a non-public elementary or secondary school.

It would be the responsibility of the Authority to stimulate interest in the use of electronic technology to meet the educational objectives in the state, coordinate the various interests, and recommend economical development of a system that would serve a variety of purposes. The scope of this Authority would include educational television, educational radio, closed-circuit interconnections to be used for special functions and interconnection of computer facilities among institutions and organizations that must have access to them. To develop the system would require a staff consisting at least of a director and assistant, an engineer, a curricula coordinator and necessary clerical and secretarial assistants. It is suggested that the Authority receive the counsel of two advisory committees, one to be concerned with general operations and policy, the other to be concerned with curriculum and educational matters.

WHAT NEEDS WOULD IT SERVE?

We have so far described the framework of this system and how it would function. Now, what will it provide? What educational goals will it help meet? What contributions will it make to elementary. . . secondary. . . junior college or vocational training. . .to four-year institutions. . .to adult education?

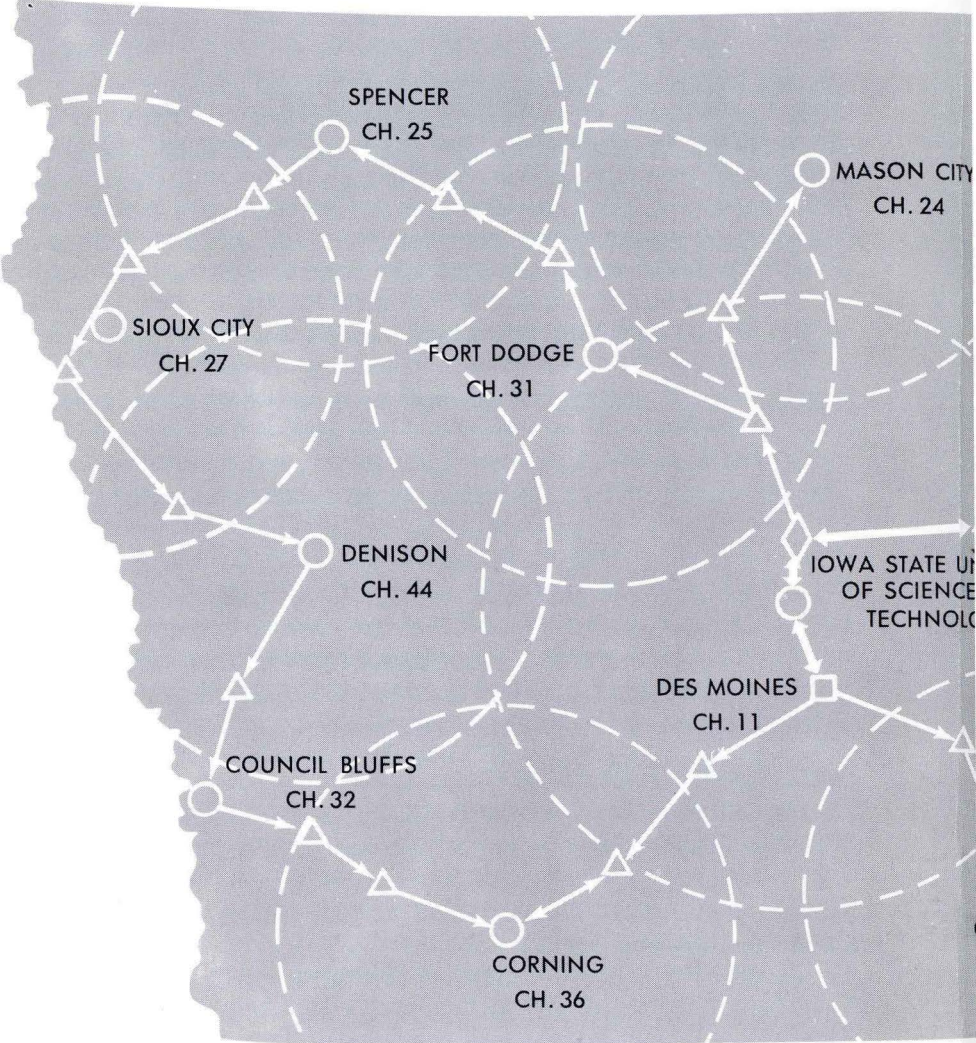
It should be made plain that educational television and radio are not a panacea. They do not replace teachers who do not exist. They do not take the place of classrooms. They do not make good teachers out of poor ones or improve inadequate facilities.

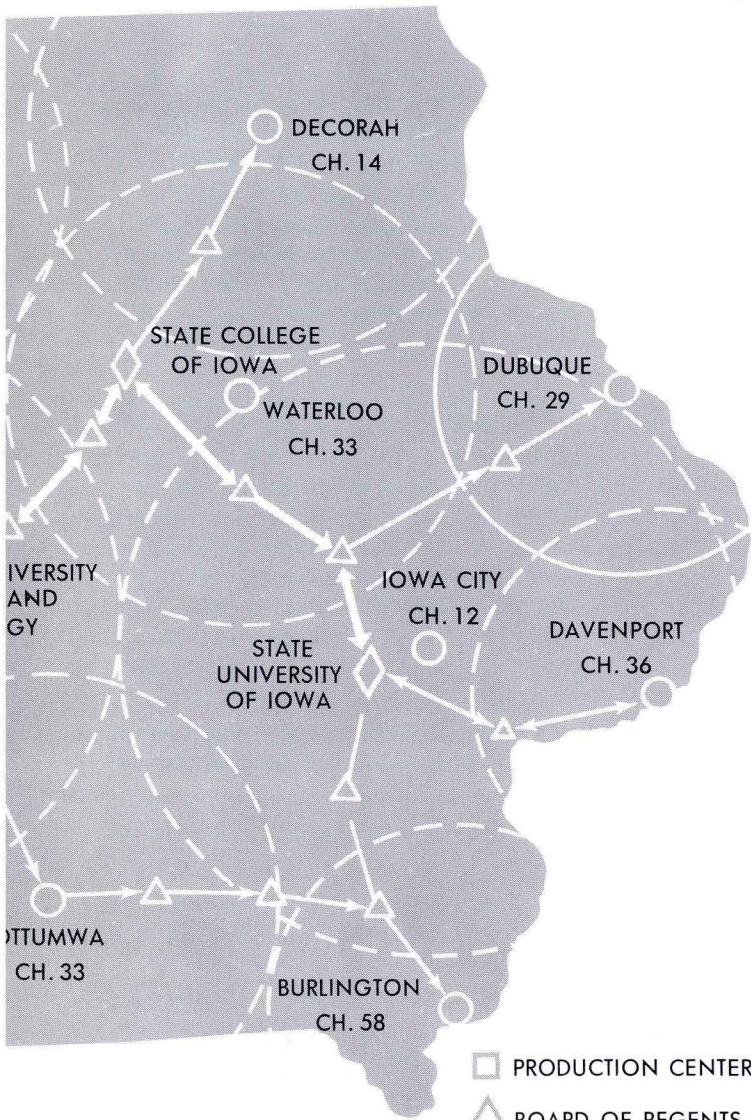
Properly organized and utilized, however, educational radio and TV—especially TV—can supplement, can improve, can enrich and can make more exciting many phases of our educational process. They can provide materials that would not otherwise be available. They can provide instantaneous or delayed transmission of sound or picture. They can readily span time and space.

This system would not impose a curriculum or instructional material

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PROJECTED GRADE B SERVICE AREAS AND MICROWAVE INTERCONNECTION ROUTING FOR EDUCATIONAL COMMUNICATION FACILITIES IN IOWA





- PRODUCTION CENTER
- ◇ BOARD OF REGENTS INSTITUTION
- BROADCAST TRANSMITTER SITE
- △ MICROWAVE RELAY SITE

on a school that is neither ready for it nor able to use it. Rather, it would become a more effective means of accomplishing objectives which educators already feel require serious attention.

At the Elementary and Secondary Levels—NAEB interviewed school superintendents throughout the state and found science at both elementary and secondary levels was most difficult to staff with good teachers, to provide a high quality curriculum, and to supply the necessary teaching materials. Less obvious, but areas of great need are English, reading, literature, history, phonics, and foreign languages.

The report finds that in the elementary schools of Iowa the problems can be broadly stated as: "(1) how to provide more uniform instruction in various subjects throughout a school district; (2) how to assure that teachers will be adequately informed on the subject matter they are assigned to teach; (3) how to develop means for the effective sharing of responsibilities between the teacher who resides in the classroom and one who may reside in a book, in a film, on a television screen or in any other teaching resource."

ETV can make a significant contribution by providing instruction for the teachers themselves. Such in-service education is particularly important because of the large number of teachers who are given teaching assignments for which they are not most qualified. An Iowa study indicates that less than two-thirds of our elementary teachers may have teaching assignments entirely within their major undergraduate area of preparation.

Social sciences are a particularly difficult area to staff at the secondary level. For example, new state requirements in the area of economics cannot be met by conventional methods of instruction in a great number of Iowa high schools having small enrollments.

Necessary high school instruction in health education, homemaking, driver training and business-oriented courses could be extended through proper use of central electronic facilities.

Junior and Community Colleges—The rapid growth of the junior college in Iowa requires more effective training of teachers to work at this level. The limited number of resource persons at the state universities needs to be used efficiently to conduct special meetings and intensive workshops.

The junior college deans expressed interest in the joint development of courses that could be made available to all institutions through some central source. These institutions are hard-pressed to cover the increasing number of subjects they are expected to handle.

Vocational and Technical Education Centers—As Iowa undertakes a major new program in this area, occupationally-oriented curricula will be required in accounting, secretarial work, merchandising, nursing, business and distributive education.

Since there is no reservoir of trained, competent staff members to operate these institutions, a statewide radio and ETV network could

well offer them invaluable assistance.

Adult Education—Need for more effective adult education is increasingly apparent. In offices and factories all over the state in-service training programs are in great demand by both management and employees attempting to keep abreast of rapid changes. Industry in several central and eastern Iowa cities is eager to see ETV facilities made available.

Professional and vocational groups of many other kinds could benefit. These might include teachers, persons in the health professions, lawyers, farmers, homemakers, for example.

Area or multi-county extension programs now being developed are bound to become major centers for adult education. The demands placed upon them will be quite beyond the limits of available personnel. More rapid communication processes, by which whole packages of information may be transmitted from some central location to these area centers, will not only be desirable but essential.

Colleges and Universities—The NAEB studies revealed significant interest among Iowa's private colleges and universities for improving curricula and operations through radio and television. Through the complete electronic system proposed schools could share teaching resources, schedule classes and process student personnel records on a central computer, hold conferences and exchange ideas with each staff member staying in his own office.

State supported institutions are feeling the full impact of burgeoning enrollments and increased off-campus demands. Their research laboratories are called upon for answers to complex problems. Consequently, they must spread their talents as far and as quickly as possible and share—one with another—all the available existing information. Both objectives clearly can be enhanced through more effective use of electronic communication devices. Lesson materials recorded at one institution could be equally useful at another where the same basic courses are being taught.

Great numbers of teachers are now involved in preparing and presenting repeatedly the same lesson to groups of 30 or 35 students. (For example, there may be as many as 100 different sections of certain freshman courses offered at one of the Regents' institutions alone!) While the student groups might stay the same size, responsibility for planning and presenting the lesson material could be shared jointly among a few teachers, freeing others to counsel and work more closely with individual students.

Courses offered by the extension branches of the state institutions are well attended. Frequently persons have to be rejected for lack of accommodations. Electronic communications could provide means of instruction for many people around the state whose economic well-being may well depend upon what can be provided from the state universities.

WHAT WILL IT COST?



It is estimated that the total capital outlay for this network would be approximately \$15,000,000.

The Board of Regents and the State Department of Public Instruction accepted the NAEB report in July of 1966 and adopted its recommendations with certain modifications. The study suggested that the statewide plan which it recommended be developed in two steps, but the joint boards felt that it was advisable to adopt the entire program at one time. The report also recommended that the network be equipped originally for black and white transmission only, with the thought that color facilities would be added at a later date. It was the judgment of the two boards that greater economy would be realized by the installation of color transmission facilities at the inception rather than at a later date.

IN SUMMARY

Perhaps the *primary* observation of the NAEB study team is that the current system of educational procedure which requires self-contained classrooms, in which one teacher is expected to serve as resident expert, does not provide an adequate basis on which to improve the program of the elementary schools.

A *second* observation is that the teaching requirements often are not matched and in many cases cannot be matched with teaching specialities of faculty in the secondary schools.

A *third* observation, dealing with higher education, is that the number and variety of new courses which will be required in community colleges and four-year institutions cannot be satisfied adequately by either the number or quality of available teaching resources.

The chief conclusion, therefore, is that the current system inhibits the accomplishments of educational objectives which school administrators feel are valid and necessary. These objectives include: improving the teaching of science, languages, and mathematics in the elementary school; presenting more effective programs in American government, economics, history, social studies, English, and science at the secondary school; providing more technical education programs; expanding extension services to meet requests; and assisting the regular instructional programs in the colleges and universities.

The NAEB does not see that educational television's primary value for the state of Iowa will be as an adjunct to the existing program in the schools. Rather it is seen as a way through which educational leaders and administrators in the state can improve that basic program. Television is not just a means of making lessons more visual and more attractive. It is a means of making them available.

This publication is prepared by the Iowa State Educational Television Agency, 1800 Grand Avenue, Des Moines, Iowa. The State Board of Regents and Iowa State Department of Public Instruction are member agencies.