This summary describes the development of the Appalachian Community Service Network (ACSN), an educational cable television network that was originally launched as an experimental demonstration in the use of the latest telecommunications for the delivery of educational services. In describing how the stage was set for the eventual development of ACSN, the first chapter reviews the program's original funding as the Appalachian Education Satellite Project (AESP) by the National Institute of Education through a grant to the Appalachian Regional Commission (ARC) in the early 1970s. Individual sections focus on the AESP experiment, which began with 15 receive sites in 8 Appalachian states; the plan for its transition into an expanded, self-sustaining organization; and the use of the NASA (National Aeronautics and Space Administration) ATS-6 communications satellite. The second chapter traces the development of ACSN into an independent, nonprofit organization using a commercial satellite to provide 3,300 hours of programming annually to a nationwide audience, and the changes for the organization produced by the addition of cable television distribution. A look at ACSN and the future discusses its new name, ACSN-The Learning Channel, and its business plan, program services, program syndication, and corporate development. (LMH)
THEreshaping
of an innovation

ACSN—The Learning Channel
1974-1982

An Executive Summary
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Foreword

What is still one of the more interesting uses of new technology traces its beginnings back a decade, when farsighted individuals from a number of federal agencies realized America was on the edge of a major technological breakthrough whose proportions were only being glimpsed at the time.

The result in 1982 is the Appalachian Community Service Network (ACSN), an educational cable television network which provides a uniquely valuable service to millions of cable television viewers across the country.

In 1972, the idea was to stretch the use of a NASA experimental communications satellite beyond scientific successes. The Appalachian Regional Commission proposed graduate credit courses in reading and career education for teachers, to be transmitted via the satellite to 15 Appalachian communities where professionals did not have easy access to continuing education.

The experiment was a resounding success.

From that limited beginning to test the feasibility of using satellite technology to expand rural educational opportunities, the project grew to a communications network of more than 45 affiliated community sites providing in-service development in the areas of education, health, industry, government and social welfare.

Eventually, the enlarged project grew into today's independent, non-profit corporation, operating in the private sector and providing educational services to home viewers via community cable TV systems.

Concurrent with that growth, the product being delivered faced new demands. The original undertaking of producing courses in the field of graduate education broadened to the design and production of programs which included workshops and special offerings to serve a growing constituency in the fields of health, business and social services. As the educational project matured into a national cable network, its programming requirements progressed commensurately. Today it operates as a true television network, primarily procuring high quality programming, produced to meet the learning needs of a national audience.

Finally, a simultaneous growth in organizational structure occurred. The original federally financed project, designed to experiment with other government innovations, was nurtured by several agencies through the commitment of both funds and manpower, allowing its potential to emerge. Then, in a thoughtful process, it was eased into a position of diminishing federal support to its current stature as an independent non-profit organization in the private sector. The near-term goal is for total self-sufficiency.

Certainly, what has been described here is not the only example of government, in a singular role, demonstrating for the private sector that innovation and genuine service to the public can be good business. But it is a particularly satisfying one because the potential beneficiaries of its success represent a staggering proportion of the country's population.

HAROLD E. MORSE, PHD
President, ACSN—The Learning Channel
As can sometimes happen, a convergence of forces, trends and technological developments, which won favor in legislative halls, the marketplace and the home, provided opportunity which would not have existed otherwise.

It was the decision of Congress in 1965 to establish an agency as a federal-state partnership for the specific socioeconomic benefit of the Appalachian people, which served as a genesis of ACSN. The success of the agency Congress established, the Appalachian Regional Commission (ARC), is grounded in the development of innovative social and economic programs and projects to aid Appalachians, and in its aggressive pursuit of other federal funds to invest in the region.

In the late 1960’s, NASA departed from an early policy of developing space technology but leaving applications up to the private sector and adopted a more assertive role in exploring possible uses of its experimental communications satellites to meet social need. At about the same time, NASA stimulated an expansion of the technology which provided an opportunity for going beyond the already successful scientific experimentation. NASA called on other appropriate federal agencies to assist in mounting experiments to test the feasibility of using satellites to produce economic, social and cultural improvements.

One such agency was the Department of Health, Education and Welfare, which in 1972 began assisting the space agency in putting plans into place which would use the NASA ATS-6 satellite — to be launched in 1974 — for experiments testing the practicality of delivering educational and health information by way of satellite.

As a result, the U.S. Office of Education, and later the National Institute of Education (NIE), developed and funded the Education Satellite Communication Demonstration, the largest and most complex application of technology to education ever attempted. Because the ARC became an important part of the Education Satellite Communications Demonstration and eventually committed itself — and moved others to commitment — the Appalachian Community Service Network thrives today, serving the learning needs of a national audience and providing a genuine public service in a private industry which is otherwise dominated by entertainment, sports and news.
The Stage is Set.

Existence of the Education Satellite Communication Demonstration (ESCD) opened up the possibility to the ARC of testing the feasibility of meeting educational needs in the large rural Appalachian area through telecommunications.

ARC had no previous experience in using satellites, but it had established educational relationships through the development of regional agencies to improve education by responding to the specific problems and needs of the region. The agencies, generally called Regional Education Service Agencies (RESAs), served multiple schools, school districts, or county school systems, and fostered cooperation across district, county, and state lines.

With that network already in place, the Education Division of ARC proposed participation in the Health Education Technology (HET) experiments of the ESCD project. The 1972 proposal called for the development of a Resource Coordinating Center to work in cooperation with the already established RESAs to disseminate career education for teachers using the new satellite technology. The proposal was accepted and the Appalachian Education Satellite Project (AESP) was born.

The RESAs were slated to become the AESP field agents to operate the project on the local level by distributing program material, organizing local receive sites, registering participants, and monitoring classes. Local sites were selected from among the 16 RESAs that applied to participate in the experiment. Five were chosen as main sites. Two ancillary sites were later selected for each main site, bringing the total number to 15. Eight Appalachian states were represented in the initial AESP activities.

Selection of a Resource Coordinating Center was facilitated through a prebidders' conference attended by 14 institutions of higher education in the region. The University of Kentucky was recommended by ARC and approved by the NIE.
The Experiment

AESP began to demonstrate that public service programs could be successfully delivered to rural communities by satellite. The experiment was a success and generated enthusiasm for the use of satellite distributed programs.

The technology worked. Reception from the satellite was dependable, providing excellent video and audio. This technical success increased the interest of the participants.

A high-quality product was being delivered. AESP produced courses which took full advantage of television, radio, tape recording and cinema techniques, as well as exploring the interactive capabilities of the technology. The caliber of the courses was recognized by 12 Appalachian institutions of higher learning who granted academic credit to participants.

The total dissemination system enhanced the program. Local interests and needs were reflected in active local participation. Ideas, opinions and suggestions were systematically sought, analyzed, and most importantly, used. As a result, AESP benefited from grassroots contacts in all the communities using its programs.

Systematic evaluation proved a number of points. Clearly, it was becoming apparent that delivering college credit courses to remote areas was technically feasible and cost effective. Students were learning what was taught and applying it to their work. And most significantly, there was a large potential audience for satellite-based learning.

All of that reflected a fulfillment of the stated objectives of AESP and was accomplished in the first year of operation, 1974-1975. What was most especially apparent was that the project filled a community need not otherwise easily met, particularly in remote areas. As a result, a demand was being created for the establishment of a permanent communication network to continue and expand the services.
The Transition Begins

In September 1975, the AESP experiment ended. ATS-6 was moved to a new orbit, precluding further transmission to the region. However, interest in the work did not die. ARC and NIE asked AESP to determine whether an expanded experimental demonstration would help local and state institutions meet their needs. The overwhelming response was yes.

Through a series of visits, questionnaires and interviews with state and local Appalachian officials, AESP was convinced that both a need and demand existed in 13 of the Appalachian states for an expanded demonstration network. So began the transition of AESP. Plans were gelled for developing an expansion of the project, which over the years would become increasingly able to generate its own income and depend less and less on federal funding. The new plan called for the development of an efficient organization/management structure which would expand the number of sites, vary the programming and seek sponsors from a variety of health, social service, business and government agencies, instead of the previous singular focus on educational organizations.

AESP proposed a transition period of four or five years in which there would be a gradual diminishing of federal support until the network became a self-sustaining organization. This was a reasonable proposition because by now it was becoming clear that communication satellites were proving themselves successful in both government and commercial sectors.

Several things were happening simultaneously. The capability of satellites was being recognized. A single satellite could serve an area as vast as the entire U.S. through an unobstructed line-of-site contact with ground receive installations regardless of rugged terrain or the location of man-made interference. It was also realized that satellite and cable TV systems were meant for each other. This combination gave ascendency to satellite transmission and sparked the phenomenal growth of the cable industry.

The New Service to Appalachia 1977-1979

In late 1976, ATS-6 was returned to an orbit over the United States. Operations using ATS-6 delivery of AESP courses began again on January 25, 1977. The new operations closely resembled the predecessor experiment, but some changes had occurred.

Receive sites were gradually established at 45 locations throughout Appalachia. Several sites had made their parabolic antennas available to local cable TV systems and were utilizing cable to expand their service areas. By the spring of 1979, there were seven cable TV companies receiving the programming.

AESP’s audience for public service programming in Appalachia was increased. Over 2,800 individuals participated as AESP expanded its courseware coverage to include more instruction for teachers, as well as emergency medical care, fire prevention techniques and small business management courses. Needs assessments during the down-time in 1976 had convinced AESP staff that diversified programs would have to be developed by others as well as themselves. As a result AESP was becoming a distributor of programs as well as a producer.

However, AESP had scarcely started implementing some of its planned changes when an event occurred which was to have a far reaching effect on the new organization’s objectives, structure, programming and marketing operations.
In October 1978, NASA announced technical difficulties with the ATS-6 satellite, precipitating discontinuance of the services within a projected 12-months. This necessitated a review of the AESP options.

Alternatives were carefully investigated. The demand and need for the service was too great to consider not finding a new delivery for the product, but options were limited. NASA was not planning to replace the ATS-6. The Canadian experimental satellite, CTS, was experiencing technical difficulties, and besides, would require many expensive receive-site equipment adjustments. Use of existing public television was a possibility, except that an entirely new system would be needed to distribute programming, limited to the use of video tape and film.

All discussions pointed to the need to utilize satellites and to the desirability of maintaining continuity in programming. The remaining alternative was to seek time on a commercial satellite and not resort to stop-gap measures. ARC allocated funds to purchase transponder time on the RCA SATCOM satellite for one year to ensure there would be no break in service.

Unsolicited, this change in events propelled the organization in a new direction. A substantial increase in operating expense demanded a new revenue structure. AESP investigated the feasibility of marketing its programming to cable companies to secure home viewers for courses and workshops. A concurrent recommendation was the consolidation of some aspects of the AESP network and the creation of a new organization, the Appalachian Community Service Network, to serve a larger geographical area and audience.

The last transmission using ATS-6 took place on July 27, 1979, bringing the successful expansion of NASA experimental satellites to an end.
ARC approved the renaming and reshaping of AESP into ACSN, a non-profit corporation to be established under the corporate laws of the District of Columbia. The initial Board of Directors was appointed by the ARC. The corporate structure and bylaws were developed. The Appalachian Community Service Network was incorporated in April 1980. Its purposes were clearly stated in the Articles of Incorporation.

"To serve and benefit the people of the Appalachian Region...by providing educational, cultural, and public interest programs through a television network utilizing a satellite distribution system...while...the primary purpose... (is) to serve the Appalachian Region, the corporation may also provide such services to other portions of the Appalachian States and the United States..."

"To...conduct...the creation, design, development, production, origination, distribution, and broadcasting of educational, cultural, and public service programs on the basis of priorities and needs identified in the Appalachian Regional Development Act...the programs will be made available to all citizens, with an emphasis placed on the needs of underserved populations in rural and non-metropolitan areas..."

The new network was to be an impressive expansion of the original experiment, serving a broader program to a larger audience. It provided for the continued use of community receive sites but added the exciting opportunity of making the ACSN program available to home viewers. "Educational" could properly be applied as a description of all its programming, but its offerings would go beyond formal education. It added a programming focus whose orientation was informational, while still providing courses and workshops for which participants would receive academic credit.

What was to make the most profound difference in the next two years, however, was that ACSN gained access to cable television systems and their built-in audiences, not only in Appalachia but throughout the United States. Cable television was to become an increasingly important part of the ACSN distribution system, greatly increasing the potential audience and reducing the need for group viewing sites.
A New Start
ACS\n
The mushrooming of the cable industry made it possible for ACSN to offer its programming nationwide. This newspaper advertisement, which cable systems use to promote ACSN to its viewers, conveys the benefits and the uniqueness of the network's programming.

See all you can be on Cable TV!

Successful!
See how to find a better job!
- Personal Time Management
- Topics in Small Business Management
- Computer Basics for Management

Creative!
Learn to spend time and money wisely!
- Cooking Cajun
- Needlecraft
- Bluegrass Banjo Level One

Effective!
Polish up your career skills!
- Jobs Seeking, Finding, and Keeping
- How to Be Effective
- Where the Jobs Are

Up-to-date!
Keep up with all your interests!
- Talking Film
- Real Estate Action Line
- Burglar-Proofing

ACSN, The Learning Channel, shows you how to keep on learning and profit by it.
The addition of cable television distribution produced changing considerations for the organization.

The significantly increased potential audience and longer programming day required a diversification of programming content, to say nothing of an increased quantity of programming. It became apparent that the new network did not have the resources to produce its own programming. Therefore, aggressive acquisition of quality programs became a primary mode. As had been the case with the original experiment, viewer needs were carefully assessed and then addressed through the program acquisition process. Still, the network did occasionally produce some programming in the form of special workshops and interactive teleconferences when specific needs could not be met through the acquisition process.

ACSN had the potential of reaching a large market and was putting together a strong product in the form of a varied educational and informational program package. The obvious step was to assert itself in the marketplace. An aggressive marketing division was developed. Its early success is apparent.

Now the network had a viable product, a market to be served and a successful sales effort. The overriding objective, of course, was still to become self-sustaining. The organization's first income was generated through fees charged to cable operators who carried ACSN's programming and to colleges who enrolled students in the televised graduate and undergraduate credit courses. Self-sufficiency appeared to be an obtainable goal as the network continued to grow. However, federal funding began decreasing more quickly than had originally been anticipated, so new sources of revenue had to be identified on a quicker schedule.

Despite an evident trend in the cable industry for programming services to make their schedules available to cable systems at no charge and to return advertising revenue or the potential for such to the operator, ACSN determined that it must increase the fee it charged to cable operators and develop new ways to generate revenues directly from the people it served with programming.
Generating revenues from the users of the network is an important strategy. The support of the network will shift, in time, from the cable operators to other sources, much as a shift has been taking place from the government to the cable industry. This targeted change in the revenue source has stimulated some recent alterations in the definition of ACSN's ultimate consumer and the structure of the programming product being delivered. For the Fall 1992 season, ACSN will introduce a new Packaged Program Concept. Programming is defined by three major learning objectives which provide the ACSN audience with professional development, personal enrichment and credit for college level courses. Within those objectives, the network schedules a daily mix of program "blocks." They are telecourses, teacher in-service training, continuing education for professionals, career development, how-to/hobby information, and learning for at home and at work.

In line with the change to a user-supported network, ACSN has begun to offer ancillary materials such as books, transcripts and audio cassettes to viewers at standard list costs. The bottom line is that ACSN will begin to see a greater percentage of its operating income from participant-based sources.

During this time, when user support has been increasing while federal support waned, ACSN's revenue picture has changed. In fiscal 1982, ACSN expects to nearly triple the 1981 level of revenue to close to a million dollars. The picture for 1983 looks even more promising.

The language, business, drawing, writing, space, film, social, literature, financial, astronomy, cooking, needlecraft, government, diet, biology, real estate, computer, music, teaching, health, painting, economics, woodworking, automotive, furniture refinishing, engineering, speech, careers, electronics, law, learning channel!!!

ACSN
THE LEARNING CHANNEL

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Today, ACSN remains the only cable programming network with a full-time commitment to the delivery of educational, instructional and informational programs for adult viewers and learners. Certainly, competition from other suppliers can be expected in the years to come, but ACSN has established its uniqueness as the premiere educational cable service. This "leg-up" in the marketplace, as well as a new identification for who and what the network is, gives ACSN strong posture for the future.

ACSN—The Learning Channel

A major consideration of the network has been in positioning itself within the cable industry, which may be reaching saturation with over 70 different programming services. Even with this keen competition, ACSN provides a service quite unlike any other. ACSN—The Learning Channel tells the network's varied audiences who it is and what it does. Therefore, the Board of Directors recently approved that designation for the network. The name, ACSN—The Learning Channel, although very new, is already having an impact on the network's visibility. Viewers, cable operators and other participants in the industry can now identify immediately the service available through this unusual cable television programming network. The uniqueness of ACSN—The Learning Channel's service should not be underestimated.

The cable industry is enhanced by the existence of a programming service dedicated to learning. The cable operator can fulfill his obligation to the public need by providing more than movies and sports to his subscribers. And of course, the cable subscriber wins because the "promise" of cable can be delivered.

Position within the industry is becoming stronger. To achieve its goals, though, The Learning Channel has planned for both the short and long term.

The Business Plan

Three major areas of business — and revenue sources — have clearly developed with the network's growth. Each has been strengthened in the process and can now be projected to make a contribution to The Learning Channel's goal of becoming totally self-sufficient. Business revenue in 1981 was approximately $380,000. As mentioned earlier, the network anticipates a tripling of its revenue base in 1982 to close to $1 million. Expectations for the future include a doubling of income by 1983 and self-sufficiency in 1984.

The Learning Channel Program Service

The 64 hour per week service of educational, informational and instructional programming delivered to subscribers through local cable systems remains the primary business of The Learning Channel. To achieve a greater penetration of the market, the majority of the organization's resources will be allocated to support the technical, programmatic and marketing efforts of the learning service.

That detailment of resources to the programming service does carry the potential of stimulating other revenues which are program related. For example, learning is often augmented by texts and other materials which can extend the experience. The opportunity to create a new revenue source has been seized through a comprehensive effort to identify, procure and then sell ancillary materials which help the audience expand their learning. This is expected to be a growing source of income in the future.
ACSN Chairman Terry Sanford (right) with board member Leonard Reinfach. Sanford, a former governor of North Carolina and one of the nation's most respected businessmen and public servants, is the president of Duke University. A pioneer in both broadcasting and cable, Reinfach is the former chairman of Cox Communications and a leader in the cable industry.

ACSN's Master Control Center, from which its 64 hours per week of programming is fed to the satellite, in turn, re-transmits the programming to cable systems around the country.
Beyond that, The Learning Channel has started a concerted effort to identify program producers who are willing to pay a fee for the sophisticated distribution system the network provides. Development of this effort, sponsored programs, has added another revenue source.

Technical Services

To operate a full service educational network, The Learning Channel must maintain staff and equipment to perform numerous technical activities. As the network continues to grow, the demands on the technical operations proportionately increase. However, it is anticipated that excess equipment capacity will exist for some time.

Maximizing revenues through the sale of excess capacity is an established priority of the organization. Services available to outside clients include sale of transponder time not being used by The Learning Channel; program origination utilizing "off-hours" of the network's uplink facility; post-production and remote feed services which expand microwave and tape equipment to their full capacity; and various technical and production support services.

Program Syndication

To maintain its status as the leading provider of adult educational materials, The Learning Channel will occasionally produce original programming to meet specific needs and demands of its consumer audiences. These programs will be produced using external funding for production while maintaining product control. Program Syndication is the leasing of programs produced by The Learning Channel to other broadcast and non-broadcast entities for further distribution.

Corporate Development

Even with the positive direction and results already achieved, The Learning Channel will still need additional support to continue on its course of becoming completely self-sufficient. To meet this need, corporate participation is being pursued.

As with business revenues, the fund raising efforts have gained momentum. The RCA Corporation and the Firestone Foundation have given generously in the form of general operating support. Modest financial assistance has also been received from several Eastern-based coal companies and banking institutions.

Corporations and foundations are being approached on the basis of contributing to general operating funds or participating financially in the production of programs which address identifiable public education and training needs. Private sector financing of programs provides revenue directly and increases the potential of revenue from program syndication.

Ten years after the beginning, current organizational planning has identified multiple sources of revenue. In the near term, they enable The Learning Channel to rapidly increase income to carry itself into the future. For the long range, this means the American cable television audience will continue to be served by a learning opportunity which was spawned by their government and which is maturing in the private sector.
It is never easy to summarize something as complex as the lessons learned, new directions taken, and resources utilized to bring ACSN—The Learning Channel to its current status. The evolution from a regional educational experiment to an educational/informational program service available to literally millions of Americans is the accomplishment of many. At the same time, it should be the pride of many.

The Appalachian Regional Commission, The National Institute of Education, the National Aeronautics and Space Administration, and the National Telecommunications and Information Administration have all contributed to the success of this unique public service in the private sector.

But the work is not done. It is important to realize that a substantial effort is required to continue the growth of ACSN. The Appalachian Community Service Network staff and Board are committed to that effort.

With the strong basis of support AESP, then ACSN, and now ACSN—The Learning Channel, has received from the outset, its remarkable achievements to date, and the firm organization in place at the present time, the continued success of this thriving network is an achievable goal.
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