# Closed-Circuit TV Communications Progress

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(*Condensed from the paper presented on April 30, 1957, at the Society's Convention at Washington, D.C., by Nathan L. Halpern, TNT Tele-Sessions, Inc., 575 Madison Ave., New York 22.*)

**Closed-circuit television** has grown into a major use of television and this specialized television may one day exceed—in the importance of its impact—the far-reaching public effects of broadcast television itself.

It is particularly fitting that this closed-circuit TV progress report be made to the Society of Motion Picture and Television Engineers, because engineers first conceived of closed-circuit uses and because it is engineers by the thousands who sustain its remarkable growth. Of the various types of closed-circuit—industrial, educational, communications, and pay-as-you-see—I intend to report only on closed-circuit TV as a communications system.

Closed-circuit TV communications span space, gobble up geography, and link people and organizations everywhere at the same time. In the past few years sessions by closed-circuit TV have become a primary communications system for business and industry.

A business meeting is televised to specially invited audiences in selected cities throughout the country, gathered to participate in the session as if they were in attendance in person. The receiving locations for business meetings may be hotel ballrooms, auditoriums, theaters, TV studios, company offices, or similar meeting places. In some instances standard television receiving sets are modified to receive closed-circuit signals, but usually large-screen projection equipment (similar in size to motion-picture screens) is utilized for viewing facilities in the closed-circuit hookups. The programs are individually designed to communicate business messages via television to the special audiences.

A few industry statistics will show the tremendous growth of the closed-circuit communications medium. In the last three years more than 100 organizations have spent some $15,000,000 on closed-circuit communications, and at least 4,000,000 persons have been part of the specially invited closed-circuit audiences. Programs have been transmitted into 200 cities in the United States and Canada. There have been exhibitions in more than 400 hotels, as well as 300 theaters and auditoriums.

From 1950 through 1955, there was an average of 50 or so tele-sessions per year. In the past year there were more than 300 closed-circuit tele-sessions, of which the largest dollar volume was in big-screen TV.

The results of the tele-sessions have been so outstandingly successful that corporations have repeated and increased their uses. Among the more frequent users are General Electric, General Motors, International Business Machines, American Telephone & Telegraph, Ford and Chrysler. It is this more frequent use of tele-sessions that indicates the growing acceptance of closed-circuit TV as a regular communications medium.

### Call for Code of Ethics

While aggressive selling can be beneficial in building a bigger medium, it becomes dangerous when an unreasonable amount of promotion causes one of the largest corporations to drop its current interest in utilizing closed-circuit television. It is strongly recommended that all of us in closed-circuit television review our standards of good business conduct for our own welfare. It may be that we are approaching a period when it is both necessary and desirable for us to establish general industry standards of business ethics, so that the closed-circuit industry will not be adversely affected by malpractices.

### Technical Facilities Stabilized

Two primary factors in closed-circuit television growth are *facilities* and *programming*.

A great deal of care has gone into the development of good technical facilities. Once a bottleneck to development of big-screen tele-sessions, the facilities problem no longer looms large. The leading manufacturers of big-screen TV projectors have provided basically good black-and-white equipment. The Bell Telephone System and other telephone companies have continued to improve the quality and sureness of their transmissions. The telephone companies have set records of millions of miles of closed-circuit television signal transmission. Still, there remains a necessity to allow for sufficient lines to carry closed-circuits at appropriate meeting hours, and a problem of uncertain special construction charges.

The field engineering and technical forces have acquired considerable experience in rendering themselves more skillful and efficient in picture and sound exhibition at each location. A single service company in this field recently announced that its engineers had already achieved a record of more than 50,000 hours in big-screen closed-circuit television.

Although there is room for continuous self-improvement in projection equipment, telephone transmission and field technical services, these facilities have been organized basically in a sound manner.

Our records show that in the past 2½ years, *TNT Tele-Sessions*' big-screen facilities have been 99.7% sure—with a total video loss of less than $\frac{3}{10}$ of 1%. And the quality performance is consistently good in the networks employing standard brand projection equipment, experienced engineers and technicians and careful advance preparations.

There has been an increasing need, however, for closed-circuit companies to develop production supervisors and technicians who can carry over from telecast to telecast the know-how and experience gained in closed-circuit productions. In this way, proper supervision can be given to camera crews and technicians in originating properly for the best possible technical, big-screen quality.

**The Role of SMPTE**

It is in the field of technical facilities that the Society of Motion Picture and Television Engineers can and should play a more important role in closed-circuit television. It is my earnest hope that at this convention a permanent Closed-Circuit Television Committee will be formed to aid and assist the proper technical growth of closed-circuit TV.

It is to be hoped that the Society will consider guidance to all members of the industry in the proper development of color for big-screen, closed-circuit television. True big-screen color represents the next great technical and business advance in the closed-circuit medium. There are still differences within the industry on the standards appropriate for big-screen color—its proper origination and transmission, as well as exhibition.

In black-and-white as well as color, it would be helpful to receive standards from an industry-wide professional engineering group to develop the best technical practices for proper maintenance of quality in closed-circuit communications.

**Programming**

The second primary factor responsible for TV development that deserves major attention is *programming*.

Like any medium, it is the content communicated by it which is most important. Thus, it's the show itself that counts. Granted that closed-circuit TV is a dramatic, live medium with enormous impact upon viewers, we have learned that not all shows help establish the validity of the medium itself or serve the best interests of the sponsor

It has been established that closed-circuit television cannot be programmed as broadcasting. Similarly, the approaches of industrial film, live touring shows, and many other methods of communication are inappropriate for closed-circuit TV. This live medium requires an entirely different and unique approach in order to achieve maximum impact.

Recognizing the great need for programming in this business, *TNT Tele-Sessions, an affiliate of Theatre Network Television, Inc.*, created the first full-time Program Department in closed-circuit television, with a leading creative television producer-director at the head.

In effect, the challenge of closed-circuit programming is to create hour-long "commercials" of interest to, and impact upon the special company audiences. The starting point is always the nature of the audience and the business message to be communicated.

We have learned that the primary purpose of closed-circuit programming is not merely to entertain. The entertainment portion must be carefully integrated so that it communicates properly the message the client wants to convey, thereby instructing and entertaining at the same time.

Programs have been built on the idea of two-way video or audio participation from locations all over the network. This has inspired enthusiastic feelings of local group participation in the nationwide meetings.

Earlier stylized presentations of personality close-ups, used without relief in a telecast, have been modified by greater visualizations through use of charts, graphs, film clips and still photographs. Nevertheless, it is interesting to note that, while there have been TV spectaculars in this field—with original book and lyrics, choreography, dancers, stars, etc.—there have been more shirt sleeve business sessions, with closed-circuit programming keyed to making these programs interesting, informative and memorable.

Split screens, supers, matting and other TV techniques have also been adapted to closed-circuit TV programming. Remote pick-ups from company factories, research laboratories and conference rooms, are as commonplace as studio originations. On a single tele-session, we have supervised 32 cameras in 11 different regional originations across the country, with intricate, split-second inter-city switches numbering 27 in 38 minutes. Also, closed-circuit has contributed to the TV record book—by covering a 2½-mile course of the General Motors Technical Center at Warren, Mich., via a mobile TV truck following a Firebird car of the future, beaming the TV signal while on the move, without interruption, to 62 cities throughout the United States and Canada.

All in all, closed-circuit tele-sessions are the modern way for business groups to communicate. And what was a late starter in the television field is now making rapid progress to become first in television importance to our business and industrial way of life.