

From: Radio Corporation of America
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T E L E V I S I O N

TODAY AND TOMORROW

A Statement

By

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In the city of Hollywood, where a great industry has been builded upon the fascinating art of illusion; where men and women play no small part in shaping the thoughts, the ideals, the architecture and the fashion of the civilized world; where the electrical marriage of sound and sight has produced a mighty force to carry America's good-will message to the people of all nations, it seems appropriate to discuss the most recent development in the field of electrical entertainment - TELEVISION.

Where is TELEVISION? When will it be ready for the home? What form will it assume? How about the necessary TELEVISION transmitting stations? What are its likely effects upon the established radio and motion picture industries?

These are pertinent questions, frequently asked. The answers are of peculiar significance to Hollywood, yet thinking men and women of all the world likewise are evincing keen interest.

Let us, then, preface any discussion of this subject with the general statement that TELEVISION, or the process of transmitting images by radio, still is in the laboratory stage. True, rapid progress is being made. The sweep of events during 1930 and the first months of 1931 has been very substantial indeed. TELEVISION has been brought definitely nearer commercial development by the research and technical progress of the Radio Corporation of America during this period.

WHERE IS TELEVISION?

One year ago, TELEVISION was a subject of engineering conversation and a topic for technical dispute. It now has progressed beyond that point. Today, transmission of sight by radio is a matter of accomplishment, not of speculation.

It must be understood, however, that the present sporadic activities in this direction cannot be classed as a practical service. They are purely experimental, but as such deserve encouragement and merit public interest.

The present status of TELEVISION might be likened to the condition of radio in the immediate pre-broadcasting era, when amateurs were beginning to hear faint sound through the air. Voices and music were passing through space in those early days of radio; comparably, there are actually some images passing through the air today. They are being received by established experimental stations, and by amateur operators in various sections of the United States. In this connection, it should be observed that the early success of radio broadcasting was stimulated in no small measure by the amateur wireless operators of that day. Similarly, the amateur operator in TELEVISION is now playing his part in the development of this new series.

THE FORM AND PROGRESS OF TELEVISION

The next stage -- and I should anticipate its realization by the end of next year -- should find TELEVISION comparable to the car-phone stage of radio. At this point, the public may well be invited to share in its further unfolding.

By that time, TELEVISION should attain the same degree of development as did radio sound broadcasting in the early period of the crystal set. This does not mean that the actual physical structure of the first TELEVISION receiver will be similar in any way to the crystal receiver; the similarity will lie in the class and condition of the service; the visions which first come through the air to the public will be of the same embryonic quality as the first faint sounds which sent mother hurrying to the car-phone of the boy's crystal set in the attic.

When TELEVISION reaches this stage rapid strides may be expected, comparable perhaps with the growth and development of broadcasting of sound. The progress to follow should make possible the projection of moving images on a screen wall. Reception of sight by radio then will be comparable to the loud-speaker stage of sound reception.

The Radio Corporation of America is conducting its present experimental developments in TELEVISION through a large research staff in the RCA-Victor plant at Camden, New Jersey. When TELEVISION emerges from this experimental stage it will be handled as a service by the National Broadcasting Company.

TELEVISION TRANSMITTING STATIONS

Before TELEVISION reaches the practical stage of service it is necessary that several experimental stations for the transmission of sight by radio be established.

The Radio Corporation of America contemplates building several such stations by the end of next year. One will be on the top of the new fifty-story RCA Building, 570 Lexington Avenue, New York City. Another will be on a still higher building in New York City. These sites have been chosen because height is an important technical factor in the successful transmission of sight by radio. These two stations probably will be located in such manner as to

New York City and its vicinity.

A third station will be located on the Pacific Coast.

Additional experimental stations may be located in other sections of the country.

Through the operation of these experimental stations, we expect to obtain exact information and practical field experience which are required before definite plans can be developed for a TELEVISION service of nation wide scope.

TELEVISION WILL HELP THE RADIO INDUSTRY

The effect of TELEVISION upon the present established radio industry will be beneficial. There will be no interference between the broadcasting of sound and of sight. These services will supplement each other and complete the impression upon the human mind of reaching it through both the ear and the eye. TELEVISION broadcasting stations will operate on wave lengths different than those now used for the broadcasting of sound. An entirely different receiver will be necessary; radio sets now used for sound reception are not equipped to receive TELEVISION.

In the practical sense of the term, TELEVISION must develop to the stage where broadcasting stations will be able to broadcast regularly visual objects in the studio, or scenes occurring at other places through remote control; where reception devices shall be developed that will make these objects and scenes clearly discernible in millions of homes; where such devices can be built upon a principle that will eliminate rotary scanning discs, delicate hand controls and other movable parts; and where research has made possible the utilization of wave lengths for sight transmission that will not interfere with the use of the already over-crowded channels.

The Radio Corporation of America is pursuing the foregoing development aggressively in its laboratories and will not attempt to market TELEVISION equipment commercially this year, as it is concentrating its efforts upon the primary technical developments to be completed before undertaking the manufacture and sale of TELEVISION sets on a commercial basis.

TELEVISION IN THE HOME WILL NOT INTERFERE WITH MOTION PICTURES IN THE THEATRE.

The motion picture industry need experience no alarm over the impending advent of TELEVISION.

Transmission of sight by Radio will benefit not only the radio industry; it also will prove a welcome stimulant, a pleasant tonic to all the entertainment arts.

There will be no conflict between TELEVISION in the home and motion pictures in the theatre. Each is a separate and distinct service. History confirms the fact that the creation of a new service for the public does not result in the elimination of an older service, provided each has something of its own to give. On the contrary, many

examples might be cited to prove that the reverse is true. The telephone did not displace the telegraph. The radio did not displace the cable. The incandescent lamp did not displace the candle; more candles are being sold today than before the creation of the incandescent lamp. And TELEVISION in the home will not displace the motion picture in the theatre.

Man is a gregarious creature. Granting that we can develop 26,000,000 potential theatres in the homes of America, public theatres will continue to operate because people will go there in response to the instinct for group emotions, and to see artists in the flesh. These are human demands which TELEVISION in the home cannot satisfy.

TELEVISION WILL EXPAND THE ARTISTS' FIELD

Now, let us consider the human equation as it may be affected by the new development of TELEVISION, for the human factor is the most important one in the creation of motion pictures.

In reflecting upon the entertainment arts in general, and the motion picture industry in particular, one is impressed by two essential elements which must be regarded as their life blood. The mechanical age with its new instrumentalities only serves to emphasize the importance and to increase the necessity for these two vital elements:-

First, the creative element; the domain of the author, the playwright, the composer. The man or woman who has a story to tell or a song to compose will be in demand so long as the art of entertainment endures.

Second, the human interpretation of the creator's work. Someone must speak the playwright's words before they can be placed upon the screen, the radio or the phonograph record; someone must interpret the composer's music before it can come to life through any of the mechanical devices of the electrical era.

These are not the requirements of a day, or week or a year; they are the permanent elements of the entertainment arts. TELEVISION, when it arrives as a factor in the field of entertainment, will create a fresh market for this fuel; it will give new wings to the talents of creative and interpretive genius, and will furnish a new and greater outlet for artistic expression. All this will stimulate and further advance the art of motion picture production.

TELEVISION'S POTENTIAL AUDIENCE

The potential audience of TELEVISION in its ultimate development may reasonably be expected to be limited only by the population of the earth itself.

Since the dawn of the new era of electrical entertainment, untold millions have been added to our audiences. It is interesting to compare the opportunities of this new era with those of the past. The life-time audience of Demosthenes was not as great as a one-night audience of Amos "n" Andy. Napoleon and Kaiser Wilhelm, showing themselves in their splendid regalia before all their spectators, never in their lives were seen by as many eyes as saw Richard Dix in "Cimarron." The sound of all the guns and cannons fired in all the battles of the world was not heard by as many ears as does

the crow of the proud Pathe rooster on the talking screen.

This vast increase in the entertainment audience has been made possible by the introduction of modern science into the older arts. And now TELEVISION will come to open new channels, to provide new opportunities for art and the artist and to create new services for the audiences of all the world.

WHAT MAY THE PUBLIC EXPECT FROM TELEVISION?

The instantaneous projection through space, of light images produced directly from objects in the studio or the scene brought to the studio by remote control involves many problems. Special types of distribution networks, new forms of stage craft, and a development of studio equipment and technique will be required. With these must come a new and greater service of broadcasting, both of sight and sound. A new world of educational and cultural opportunities will be opened to the home. New forms of artistry will be encouraged and developed. Variety and more variety, will be the demand of the day. The ear might be content with the oft-repeated song; the eye would be impatient with the twice-repeated scenes. The service will demand, therefore, a constant succession of personalities, a vast array of talent, a tremendous store of material, a great variety of scene and background.

There is little in the field of cultural education that cannot be visioned for the home through the new facilities of electrical communication. Assume sufficient progress in the TELEVISION art and every home equipped for radio reception may at certain times, become an art gallery. The great works of painting and sculpture in the art galleries of Europe and America lie buried there, insofar as the vast majority of the earth's population is concerned. TELEVISION, advanced to the stage when color as well as shadow may be faithfully transmitted, would bring these treasures vividly to the home. Conceive the exhibition of such works of art in the home, accompanied by comments and explanations by the proper authorities. Just as sound broadcasting has brought a new sense of musical appreciation to millions of people, so may TELEVISION open a new era of art appreciation.

But even more appealing to the individual, is the hope that TELEVISION may, at least in a measure, enable man to keep pace with his thoughts. The human being has been created with a mind that can encompass the whole world within the fraction of a second; yet, his physical senses lag woefully behind. With his feet, he can walk only a limited distance. With his hands, he can touch only what is within reach. His eyes can see at a limited range, and his ears are useful at a short distance only.

When TELEVISION has fulfilled its ultimate destiny, man's sense of physical limitation will be swept away, and his boundaries of sight and hearing will be the limits of the earth itself. With this may come a new horizon, a new philosophy, a new sense of freedom, and greatest of all, perhaps a finer and broader understanding between all the peoples of the world.
