The *Picturephone*® System

Foreword

The first public demonstration of two-way video telephony took place on April 9, 1930, when representatives of the press were shown a system operating between the Bell Telephone Laboratories building at 463 West Street and A.T.&T. Co. headquarters at 195 Broadway in New York City.* Dr. Herbert E. Ives, then Director of Electro-Optic Research for Bell Laboratories, said of this event, "The latest development to be demonstrated is that of two-way television as an adjunct to the telephone."[1] The following day a New York City newspaper reported:

"Yesterday we saw a much more highly developed form of television demonstrated by the Bell Telephone Laboratories. It was two-way television. We sat in a booth at No. 195 Broadway and conversed with . . . [a person in another] booth at the Bell Laboratories. . . . Each was visible to the other, there being no telephone mouthpiece to mar the image. The speech was very clear. An inoffensive blue light was shot across the face of the speaker from the camera's eye and picked up

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* This demonstration of a two-way system had been preceded by a demonstration of a one-way system between New York and Washington, D. C., on April 7, 1927.

by other batteries around the booth. And yet this marvelous invention is still in the laboratory stage, according to the Bell engineers."[2]

The interest in video telephony continued after Dr. Ives' demonstration, but this was a case where feasibility was demonstrated long before the technology became available to transform the idea into a practical reality. That transformation depended, as the articles in this issue show, on technology developed primarily during the 1960s, although it was apparent late in the 1950s that the necessary technology was not far away.

Dr. Ives understood clearly that his was just a demonstration of feasibility, but once the possibility of bringing people face-to-face in long distance communications had been demonstrated, it hardly seemed reasonable that it would not in due course be brought out of the laboratory into commercial service. Nor does it seem unreasonable to expect that *Picturephone*® service will eventually become an accepted, normal mode of person-to-person communication and that, with its adjuncts, it will give us new means for communication between people and machines. And just as telephone service—and the network that grew up to provide it—changed the pattern of our lives and the conduct of our business, so we can expect *Picturephone* service and its network to have impacts that we can only begin to appreciate.

This special issue of *The Bell System Technical Journal* describes *Picturephone* service as it exists today. As it becomes available to more and more people, new uses will be provided. We are already looking forward to methods of providing high-resolution images of graphic material, and to *Picturephone* service in color as a logical evolutionary step. Beyond these will be other steps to make the service more economical and to make the service and its network more useful.

The articles in this issue have been written by some of the people responsible for making *Picturephone* service a reality. The issue is dedicated to all of the many people without whose contributions it would still be in the laboratory stage.

<div align="right">JACK A. BAIRD</div>

REFERENCES

1. Ives, Herbert E., "Two-Way Television," Bell Laboratories RECORD, *8*, No. 9 (May 1930), pp. 399–404.
2. The New York Daily Mirror, April 10, 1930.