Dr. Lawrence K. Anderson  
AT&T Bell Laboratories, Retired  
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Woodward Hall, Room 147

ABSTRACT
Today we take for granted that we can log on to our computer and virtually instantaneously share voice, video and data with colleagues anywhere in the world at costs “almost too cheap to meter”. We owe this miracle to the magic of digital technology and fiber optic communications. To get there required a revolution in telecommunications technology. For example, the first transatlantic telecommunications cable, TAT-1, installed in 1956, carried just 36 analog voice-only channels, using vacuum tube repeaters. In contrast, the first transatlantic fiber optic cable, TAT-8, installed in 1988, operated with a digital bit stream at 296 Mb/s, and carried the equivalent of 4,000 voice channels. A lot has had to happen in terms of invention and technological innovation to get from TAT-1 to TAT-8. We’ll look at some of the key stops along the technological way.

Speaker Bio Larry Anderson spent most of his career at what was then AT&T Bell Laboratories, first as a scientist and then as an engineering manager, working in the general areas of semiconductor and optical technology. In the mid 1980’s he was on loan from AT&T to Sandia National Labs, where he served as a vice president of component development. After leaving Bell Labs he returned to New Mexico in 1990 to set up the Alliance for Photonic Technology at UNM. He then spent several years at the University of Colorado at Colorado Springs, where he established the Colorado Institute for Technology Transfer and Implementation. After leaving UCCS, Dr. Anderson returned to New Mexico, for the last time, where he has been active in the Institute for LifeLong Learning for New Mexicans, an all-volunteer organization aimed at providing academic level continuing education for seniors. There he served for many years as its president and continues to lecture on a wide range of technical topics.
He holds a B.E. in Engineering Physics from McGill University and an M.E and PhD. in Electrical Engineering from Stanford. He is a Fellow of the IEEE.

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