

4/4/88

Comments before
The Washington Journalism Center's
Conference on the Future of Television in a Changing Society
by
James H. Quello

I am happy to take a few minutes to talk to you about the future of TV. I will admit, however, that given my status in life, I'd feel more comfortable talking about the history of television -- I've lived it!

Much of what is thought of as the future of television exists today, either in research laboratories or corporate "think tanks". The eventual consumer availability of what is being developed today depends on both the regulatory environment and the marketplace. It used to be that the only means of delivering a video signal into the home was by over-the-air broadcasting. Now, through technological and regulatory changes addressing the marketplace demand for video services, we are capable of receiving video messages through a variety of means. Today, if I were to walk into your home while you were viewing a movie, I would not be able to tell if that movie was coming to your set via broadcast, cable, satellite, VCR, or possibly even a video disc.

526

The "TV sets" of tomorrow will serve the same essential function as they serve today -- displaying the video message. Depending on consumer need and demand the TV screen will be bigger and perhaps smaller, wall sized to wrist watch. The

picture will be crisper, clear -- have higher resolution and less distortion. Screens will be narrower, flatter and wall mounted. High definition television is here today, however, problems exist regarding the means available to deliver these breakthroughs into the home. The sound quality associated with the video picture will also be greatly improved. Digital technology is here today, stereo television is here today -- tomorrow we will see further development in the marriage of video and sound.

The array of video programming will ~~be~~ differ widely. You may be watching your grandchildren, not on video cassette, but as they talk with you on the telephone. Your TV set will display information ranging from local, regional, national and international news. You'll be able to read what I call "designer video news" tailored to your specific likes. The same holds true for information or data banks. Your TV set will connect you to the world outside your home, and I don't mean the Huxtables' living room on the Cosby show. By the world outside I mean your bank, post office, library, school and doctor. Your TV set may keep you better in touch with yourself by displaying your vital signs, tracking your weight, as well as displaying the vital signs of your home environment -- temperature, humidity, energy usage and security.

What comes across the screen of your TV set will in large part be determined by the world of technology interfacing with

your set -- that world beyond the wall plug. Technology alone will not address the consumer availability of information. The technologies will have to be integrated into a network of services that will provide for consumer selection of desired services.

What does the future hold for today's broadcasters? I think broadcasting will survive, but not necessarily as we know it today. Today's broadcasters may become tomorrow's programmers; providing their fare on tariffed fiber optic channels. Like today's superstations, the local broadcaster of tomorrow may extend his service well beyond the station's grade B contour through arrangements with telephone companies. Broadcasters may need this extended coverage to compensate for the dwindling advertising dollar resulting from increased competition from distant broadcasters also carried by phone lines (a Catch-22 situation) and increased reliance on advertising revenues by cable operators, data and information banks and other services that could be advertiser supported.

Today broadcasters face competition for viewers from cable, VCRs and TVROs. Competition in the world of tomorrow will be much more extensive. Viewers will be able to access information/entertainment via land line/satellite networks. Whether its videotext or teletext, information libraries will compete for viewers' time. Furthermore, these information services may be supported partially by advertising revenue --

x receive only services

revenues that may have gone to traditional broadcast, cable and print accounts. Competition doesn't guarantee survivability and some businesses will fail. For example, if a viewer can directly access a studio for a movie (view-on-demand), then the cassette rental business will be harmed. If telephone companies can deliver not only voice, but also entertainment and data, then broadcasters and cable operators will be harmed. The likelihood of both scenarios occurring is great. The day of having to deal with a separate telephone company, cable operator, and video rental store may be a thing of the past, as tomorrows' viewers may be able to deal with one telecommunications provider.

Whatever the technological advances, the Commission must maintain the regulatory framework that insures protecting the public interest, while providing the flexibility for implementing new technologies. Providing the right regulatory framework will require cooperation between Congress, FCC, Judge ^{the judiciary} Greene and the industries and services involved.

TELEVISION: THE NEXT TEN YEARS

See 3/31/88
JH

I've been asked to take a look ahead to the future of television and to speculate about what it will look like in ten years. Before I do that, I would like to quote--or at least paraphrase--what John Kenneth Galbraith recently had to say about foretelling future events. He said there are two kinds of people who predict the future; those who don't know and those who don't know they don't know. I'd like to count myself among the former and, in that spirit, I'm willing to make some guesses.

There was a recent conference in which the National Association of Broadcasters and others participated which attempted to show some of the newer video technology and where it appears to be going. High definition TV was, of course, prominent among the topics discussed. Cable television penetration was also mentioned. Home video recorders were noted by some of the speakers. But, perhaps the most significant discussion relating to the future of television was about fiber optics.

Most of us are generally familiar with fiber optic transmission facilities. You may even be aware of the tremendous capacity available in a single strand of single-mode fiber. You may not be aware of the likelihood that such fiber

may soon be reaching into virtually every business and residence in this country. The vehicle will be--or at least the phone companies hope it will be--ISDN, the Integrated Services Digital Network.

Less than two weeks ago, in Salt Lake City, there was a conference entitled: "Towards a Universal Broadband Infrastructure for the U.S.." A rough translation would be that the Bell Operating Companies are seriously considering the installation of single-mode fiber into individual subscriber homes. Incidentally, the forum was sponsored by the Massachusetts Institute of Technology and Bellcore, the very large research and development entity funded by the seven Regional Bell Operating Companies.

Washington Post Chairperson Katherine Graham recently noted that "(w)ithin the next decade or so, we'll have fiber optic networks wired to sets nationwide." Speaking at NATPE's 25th annual program conference in Houston in February, Ms. Graham predicted that "(the) Bell Operating Companies most certainly will be in the business of program distribution--at least they'll want to be--and viewers may have not hundreds of program choices, but thousands." The March 7th issue of Television Radio Age quotes Irving Kahn, chairman and president of Choice TV and Broadband Communications, as saying telephone companies are not just going to be common carriers, but system operators. And Khan's timetable is three years.

The cable industry feels threatened by the Bell Operating Companies' interest in broadband local loop plant. According to the February 29th issue of "Cablevision" magazine, "(t)he cable industry's case will go beyond what has been voiced so far at the FCC and elsewhere concerning the antitrust rationale against telco involvement in the cable business. It will include evidence that the cable television industry is intent on exploiting the benefits of technology every bit as much as the telephone industry, and technical and business reasons why the telcos' case is badly flawed." The article notes that "(f)ortunately for cable, the trends in fiber optics development suggest that fiber will be widely deployed by cable operators long before the telcos are ready to plug in the modules that can deliver digital video signals over fiber loops to the home. There are two major reasons for this: The level of cable industry involvement in steering fiber optics R & D toward applications in CATV is escalating rapidly. And the non-regulatory barriers to achieving video distribution through ISDN-based fiber systems are formidable."

Thus, the ultimate deployment of broadband fiber media to the home and small business seems inevitable. The timetable for such deployment is uncertain. With respect to the telcos, the transmission medium--the single mode fiber--is already available in large quantities and at competitive prices. Some of switching and interface technology appears to be lagging, at least in terms of economics.

More than 50,000 miles of fiber have already been installed by this nation's long-distance carriers. But, replacing copper in the local loop is a formidable task. According to the March issue of CO--a trade magazine covering switching, transmission and network services--every year, telephone companies install about 2 million new and replacement local loops. But, the magazine points out, "(to) put fiber in just half of those lines would take nearly three million miles of fiber--about 50 percent more than the combined capacity of all US fiber making operations."

While production capacity can be increased to meet virtually any demand in the future, there is a more important factor which could retard the deployment of fiber. Unless the public can be convinced that these very high capacity pathways to the home are worth their cost, it could be many years before there is significant penetration by the telephone companies. If that situation were to develop, it seems likely that cable television systems might well lead the fiber race.

I realize that I am supposed to be speculating about television services ten years from now and I have spent a considerable amount of time talking about fiber optics. My point is that the two are quite likely to be intertwined and inseparable. High definition television would seem to be easily accommodated by fiber. Interactive television services to facilitate shopping, banking and the like would be accomplished with relative ease. Undoubtedly, there are services of which we

are not yet aware that can be devised to take advantage of the vast amounts of bandwidth which will be available.

I hasten to add that terrestrial broadcast television is not dead. It will continue to improve in both technical content and quality. As newer services are made available, they tend to be priced for the relative few when they are first introduced. And, there is a very large base of receivers which will not be discarded overnight.