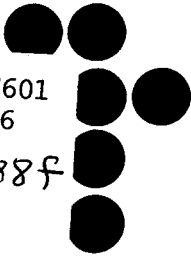


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THE POLITICS OF HDTV

Thursday, April 21, 1988

Seminar Notes

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Joel Chaseman  
Chairman & Chief Executive Officer  
Post-Newsweek Stations, Inc.

Brenda Fox  
General Counsel & Vice President for Special Policy Projects  
National Cable Television Association

W. Russell Neuman  
Associate Professor  
MIT

Gail Kosloff  
Student Rapporteur  
MIT

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This session transpired after a day long meeting focused on the topic of HDTV (High Definition Television). The speakers each have distinct views about how and when HDTV will emerge in the United States marketplace. Russ Neuman emphasized the economic and public interest issues related to HDTV, and said the debate is not about the issue of "pretty pictures." He alluded to public opinion studies on HDTV recently conducted by MIT's Audience Research facility in Danvers, MA, as well as work underway at MIT's Media Lab. Joel Chaseman of Post-Newsweek Stations, Inc. addressed the topic of HDTV from his perspective as Chairman of MST (Maximum Service Telecasters) which represents U.S. broadcasters. He believes that local broadcasters are interested in HDTV because it promises better picture quality. Chaseman de-emphasized broadcasters worries about losing marketshare. The third speaker, Brenda Fox represented the National Cable Television Association, one of the trade associations involved in ongoing study of the issues related to the acceptance of HDTV in the United States and its potential impact on the cable industry. In the end, Fox does not necessarily believe that HDTV is coming to market as quickly as the first two speakers anticipate. She also believes that the cable and broadcast industries need not have an adversarial relationship on the issue of HDTV.

Professor W. Russ Neuman started off the session by raising the following questions: Do we have the proper institutional and procedural bases in place to make the best decisions on how to handle the decisions related to advanced television in the United States? And to respond to the Japanese challenge? According to Neuman, while clear HDTV plans have evolved from the Japanese and Europeans, a unified U.S. plan has been slow to emerge.

He reviewed the history of the development of HDTV and how in the early 1970s. He remarked that those working on advanced TV in the U.S. at this time thought that by increasing the number of lines on a TV screen the quality of the picture would be like a motion picture. At this time, according to Neuman, people expected HDTV to replace 35mm video. He cited how slowly development work was in the 1970s. It was not until late in the decade that the Japanese lead by NHK made real headway. The 1125 standard emerged primarily for satellite transmission.

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Russ went on to provide an overview of a recent NAB (National Association of Broadcasters) meeting at which HDTV was a primary topic. According to Neuman, the sentiment at the meeting was that the Japanese already are marketing HDTV now in the form of pre-recorded formats, e.g., VCRs, videodiscs. Neuman cited that in his opinion over-the-air broadcasters view HDTV as one more threat to market share coming after VCRs and cable have already eroded some of broadcast's market share. He observes that each media, e.g., broadcasting, cable, and so forth is adjusting to the forthcoming HDTV challenge.

On the issue of what HDTV will look like, Neuman noted that the FCC Advisory Committee has been looking at 14 different alternatives, including the Japanese system. According to Neuman, this challenge from Japan raised a lot of question about how the U.S. will respond. He provided us with an overview of the major players involved in formulating policy on HDTV in the U.S., including Congress, the FCC (Advisory Committee), NTIA (branch of the Dept. of Commerce), CCIR and CCITT, the Department of State, as well as several trade associations, e.g., NAB, NCTA, MST, MPA (Motion Picture Association) and Bellcore (which is acting like a trade association). He emphasized that this list is by no means exhaustive.

Joel Chaseman, Chairman of MST, answered "yes" to the question posed by Neuman of whether we in the U.S. have the proper mechanisms in place to respond to the Japanese HDTV challenge. Chaseman believes that the issues surrounding HDTV are too complex to entrust to one or two traditional institutions. He does not believe that we currently have unified telecommunications policy in the U.S. According to Chaseman, those free market and governmental forces involved with the HDTV issue in the U.S. will probably produce "a uniquely American solution and that it will probably be a good one." Chaseman cites that even broadcasters differ on their views of HDTV.

On the issue of what is driving HDTV, Chaseman believes that current HDTV activity is not market driven. Instead, he says it is largely technology and industry driven. Despite his general

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optimism, he believes those in the industry should tread with some caution. Since this new technology will bring improved picture quality to consumers, he emphasized that the broadcasters role in formulating HDTV policy should not be defensive. Instead, broadcasters will, according to Chaseman, take advantage of the improved picture quality HDTV promises; they are determined not to look third rate.

In general, Chaseman does not advocate that consumers (the marketplace) rule on the subject of HDTV since they have not seen a real product. He does believe that the policy work of the FCC Advisory Committee, of which he is a member, and NTIA is very useful. He believes that if the public sector can not provide open discourse on HDTV, than the private sector will do it. Above all, Chaseman believes the policy making process must be open and substantive.

The third speaker, Brenda Fox, was the most cautious in discussing the future of HDTV technology. According to Fox, it is difficult to evaluate whether HDTV will be successful. She agrees with the two other speakers that HDTV is not currently a market driven issue. She did raise the prospect that the market could become market driven before any one of the players is ready to participate. Fox does not believe that the HDTV technology/market is necessarily just around the corner as the other speakers foresee. She does not believe the impetus will be the VCR; instead she looks to cable and, possibly, DBS to push the introduction of HDTV in the U.S.

She supports the work of the FCC Advisory Committee. However, she also sees many limitations to the FCC's viewpoint, e.g., it is focusing on terrestrial broadcast TV in studying the future of HDTV. As the General Counsel and VP at NCTA (National Cable Television Association) she emphasized that television should not, and cannot, be narrowly defined as broadcast TV. Therefore, according to Fox, in view of the virtually myopic scope of the FCC's inquiry, much of the practical decision-making will be made by private industry.

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Fox cited that more than 51% of U.S. homes currently receive terrestrial broadcast signals via cable. She noted that it is critical, therefore, that any standard selected for terrestrial broadcast television be compatible with transmission via cable. She emphasized that the broadcasters are sensitive to this issue. Fox warns that any premature resolution to the HDTV spectrum issue could have severe ramifications on the broadcast industry. She believes that broadcasters could come out on the short end since the cable people theoretically have a spectrum advantage over broadcasters; the cable companies theoretically have unlimited spectrum and do not have to look to government for permission to change their signal transmission format. To her the bottom line is how cable operators will be involved in delivering HDTV services to consumers when cable capacity is full and, as a result, there exists a practical limitation on spectrum that may be used for particular HDTV signal formats.

Brenda voiced concern with the timeliness of the HDTV technology development process. She noted that today most of the technology is only in the computer simulation stage which means that rigorous laboratory and field testing, including tests on cable, cannot yet take place. Fox warns that if government pushes for resolution of the broadcast spectrum allocation issue too quickly a less than optimal choice may be foisted on that industry.

In response to HDTV technology, Fox cited the cable companies are studying potential problems and opportunities. According to Fox, first and foremost the cable operators are concerned about the "robustness" of particular signal formats and their ability to survive retransmission over cable. They are concerned, too, with whether there may be interference problems in carrying HDTV and other signals adjacent to one another over cable. At the same time, cable companies are investigating how they might use HDTV as a business opportunity. Fox explained that while finding a single signal transmission format for all television media may be possible, it is unlikely that different media will maximize their technological potential by looking to

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individualized formats. Cable, therefore, is investigating the potential of "smart" receivers that could accommodate multiple ATV or HDTV transmission formats.

In summary, all three speakers were hopeful that the mechanisms and institutions currently in place will be adequate for those in the U.S. to deal with the questions of HDTV. Russ Neuman raised the paradox that "we might not know if it works until it is over." As far as projecting the implementation of HDTV in the U.S. the speakers were divided. Chaseman believes that the recently created Advanced Television Test center will probably speed things up. Fox thinks that attention should also be paid to improving NTSC. She does not know whether consumers will be willing to pay a premium for an improved picture. Neuman pointed to the slow acceptance of projection TV (now only 3% penetration in U.S.). He believes that HDTV acceptance will be a matter of timing. Neuman also agrees with Fox that there could be a market for improved NTSC. On this note, Chaseman questioned the practicality of choosing NTSC for the long-term future; he suggests a two-step process to get improved picture quality while recognizing the need to be sensitive to the consumers willingness to pay for such improvements. All three speakers would agree that any decision that would leave the consumer with an obsolete TV set is not the answer to effectively introducing HDTV in to the U.S. market. This raises a significant public policy issue which Fox notes the FCC has refused to accept in the past. She also explained that for these reasons the FCC recently chose not to change the AM radio standard.

Although the hope of NHK has been the development of a universal HDTV standard, Fox believes we are beyond this. She notes that Europe has already gone its own way. Neuman reiterated this in noting that at least three separate standards will probably emerge: Japanese, European, U.S. However, he believes that an international standard for production (35mm) will probably exist. Neuman predicts that an invasive role of the regulators in the US would not be welcomed. He does not foresee a Minitel-type initiation for HDTV in the U.S. market.

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Fox notes that HDTV will not only have an impact on mass media, but it is also being applied to other fields, e.g., printing and medical imagery. Neuman also noted the work on HDTV in the non-entertainment areas, e.g., corporate videoconferencing and medical imagery. He mentioned that a recent Bellcore demonstration of open heart surgery using HDTV technology resulted in a picture doctors said was difficult to see.