

The Evolution of Audience
Measurement

Remarks of Speakers

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**Edited Remarks of Speakers:
The Evolution of
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Seminar held:
October 6, 1988

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Research Working Paper Series
Center for Telecommunications and Information Studies
809 Uris Hall, New York, NY 10027 (212) 854-4222

Cole: On behalf of the Center for Telecommunications and Martin Elton, I extend a sincere welcome. Tonight, we're discussing people meters. A year ago, after a short delay, we moved into Year One of the people meters, sometimes called "the year of the asterisk." With considerable press coverage, proponents of the change emphasized a variety of benefits, mainly having to do with the possibility of greatly increased demographic data. Ratings throughout the year and year-round demographics, sharper demographic targeting at Blacks and Hispanics; overnight national demographics, continuing data regarding reach and frequency messages; comparable ratings for broadcasting cable syndicated programming, and measurement of VCR playback, as well as simply VCR recording. Many strong proponents indicated some major positive changes would take place.

On the other hand, we had the fears of disruption and some concern about revelations that certain programming had been either overevaluated or underevaluated in the old system. We were also concerned about biases of the new system - biases in favor of large, high-income, high-education, and high-tech households, and against children, teenagers, elderly, and the less-educated, who would not perhaps be as able or willing to deal with some of the necessary devices involved. Fears were also expressed concerning people meter fatigue. After being on the system for a few months, or perhaps as much as a year, people would not have quite the desire and the willingness to spend the

time necessary to conscientiously log in day in and day out. Cynics, recalling some very important House Commerce Committee hearings 25 years ago on ratings, and the famous stories about television sets that were kept on to keep the cat warm at night, claim that nothing has really changed. Even with the people meters, you still have problems of people going to sleep or leaving the room without logging out -- some of the same problems we've had all these years. And of course TV critics said that regardless of the methodology, you're simply dealing with what people are watching, not with how they like or how they react to those programs.

Now a year later, ABG has left the scene. The new season may or may not have begun--depending on, I guess, whom you talk to. Certainly far less has been written about people meters than a year ago, and that's one of the things I think we want to look at tonight. We're going to look at some of the problems and lessons of Year One: where things stand as we enter the second year; the nature and significance of changes caused by the new system; to what extent the hopes and fears expressed last year were valid; and if they weren't, why not? If they were, to what extent must we change things in the second year to avoid the worst and achieve the best from people meters? And of course the ultimate question, have or will programming and advertising decisions and decision-making processes significantly be altered by people meters, and if so how? Will the public notice the difference? Has the public known the difference?

We have three genuine "in the field" experts with us tonight. The first of whom is John Dimling, who has been on the firing line at Nielsen as their senior Vice-President to institute the new system. If there was ever someone who had the expertise and the great range of experiences to do that well, it is John. I first met him some years ago when he was Director of Research at National Association of Broadcasters. He then came to New York and headed the Broadcasting Ratings Council, and, on the second day of the job, he changed the name from Broadcasting Ratings Council to Electronic Media--a much more accurate projection of what he was trying to do. Later on he went to ARB and finally to Nielsen. So, he's spent many years in this business, with a great range of experience. There's no question that one of the reasons AGB is gone and Nielsen remains is that John Dimling is on the scene.

John Dimling: Thank you Barry. I'm not sure that that last statement is accurate, but I appreciate the compliment.

I thought I'd begin just by reviewing the reasons why we went to the people meter. Basically, Nielsen changed the way we measure audiences in television, because the television medium was changing. Back in the days of the mid-seventies, when typical households could receive three network affiliates and maybe one or two independent stations, and cable penetration was 10 or 15

or 20% the system that existed worked fairly well. That system was a combination of meters which measured what channels the sets were tuned to, and diaries in which people wrote down who was watching the programs. But the medium got more complicated: cable grew; the number of independent stations grew; pay cable emerged; and VCRs exploded onto the scene. As a result, there was some evidence that fit with the intuitive sense that people don't always know what they're watching when they watch television. That is, they cannot always be counted on to correctly write down in a diary what they are watching. For instance, if I watch a basketball game on a winter Saturday afternoon. I may be watching basketball on any one of five or six channels and I wouldn't necessarily know which channel I would write in the diary.

Nielsen made a decision to begin to test people meters late in 1984, and we announced a plan in 1985 for testing and moving toward people meters. I characterized that process--and I think accurately--as the largest methodology test in the history of media research in this country. We produced 2 1/2 years of parallel data. We did a number of analyses, looking at standard measures such as ears per tuned household, households using television, various types of demographic data. In that examination, we also looked at some things that had not been looked at before. A measure of television viewing behavior, which, as far as I know, nobody has ever really looked at, is: how many times does the audience change during an hour? I'm not

sure what the use of this is, but I find it interesting that nobody had really produced data on this, given all the examinations of television. Interestingly, people meter, compared to the diary, revealed more changes in the audience per hour--not changes in the set tuning, but people leaving and entering the audience.

We also did a fair amount of validation work. Several coincidental telephone studies were conducted. Some national coincidentals were sponsored in conjunction with the networks and they were conducted by the independent research firm SRI, one in daytime, one in prime time. We also did coincidentals on the people meter panel itself, so we could compare the extent to which the data coming back from the coincidental compared with or agreed with the data coming back from the people meter. We learned several important things from all this. First of all, the sample in terms of how the sample compared with the universe, the general population, looked basically good. The then existing NTI sample had skewed somewhat old and somewhat rural. In 1987, the percentage of households where the age of the head was under 35 was about 29.5%. In the NTI sample, that number averaged around 24%, so we were low in the younger households. In the people meter sample, the age of household distribution matched the universe almost perfectly, but we also found that people did not push buttons perfectly. Basically, however, there was high agreement between the results of the coincidental when we called the households and their button-pushing behavior, and compared

with the standard diary measures of television, the numbers weren't far apart. There was some evidence of button-pushing fatigue--a new problem of modern society, although it's hard to quantify the extent to which this occurs. We did both cross-sectional analyses and longitudinal analyses, and as I read the data, there is some tendency for people, as time goes on, not to push buttons well. It's not a huge and clearly identifiable phenomenon, and there are some statisticians of good will and substantial confidence who would dispute that data. When you do the cross-sectional analysis, it's very hard to interpret the results since people who have been in the sample for a while tend demographically to be different than more recent entrants. People who have been in for more than a year, by definition, have not moved, and demographically tend to be somewhat older, more stable households. Generally, though there were some evidence of fatigue.

As a general proposition, the levels tended to agree fairly well with the coincidentals. At the time we were tracking the then existing household sample and the people meter sample, the people meter data showed households-using-television ("hut") levels. When the statistical research did the coincidental, it tended to confirm the lower levels from the people meter. The coincidental came in between the old NTI sample and the people meter, but clearly within statistical tolerance of the people meter sample and clearly beyond the normal statistical tolerance of the existing NTI sample. As we tracked the data across time,

there were some obvious differences. The network shares tended to be somewhat lower, but the magnitude of that difference depends on your point of view: to a network's salesperson, 1 or 2% makes a huge difference; to a social researcher or a social observer looking in from the outside, the difference really isn't that great.

The one exception I would note was young people--teens and children--where on Saturday morning for instance, the levels recorded by the people meter were and are substantially lower than the levels reported by the diary. And I think this is probably not surprising; my guess is that the diary is too high and the people meter may be even now a bit low. In the traditional household, with children watching television on Saturday, diary-keeping is typically done by the female. It's reasonable that the diary-keeper with two children who generally watch television on Saturday, may simply report both children watching television for the whole Saturday morning, even though either or both of them may not watch that particular morning. With the people meter, it's easy to understand that children may not push buttons and similar kind of phenomenon exists with teenagers.

We did yet another national coincidental in households with children and calculated a typical television statistic -- ears per tuned household, number of children per tuned household -- and when we then compared that with the corresponding information from the people meter sample, we found the two were virtually

identical. The people meter may have gotten a lucky statistical balance, but I'm not completely convinced that we're getting good button-pushing behavior on behalf of kids, and the independent research that we did tends to corroborate that. For children's programming in early evening, that was not the case. The people meter was about 12% lower than the coincidental.

We instituted a number of changes in the procedures aimed getting kids to push buttons which some impact: special incentives, instructions and videotapes for children. We changed the instructions for adults, urging them to assume responsibility for their kids' button-pushing, which is to say, if your child is not capable of pushing the button, then we'd like you to help by making sure that the button gets pushed. Taking a broad view with exception of children and teens, I think the differences were not that great. Incidentally, people meter showed substantially more children watching television in prime time than the diary did. Also, the people meter showed higher person viewing in late night than the diary, which again is consistent with the conventional wisdom about the diary, that in late night, the diary probably understates the viewing.

Barry also suggested that I comment on what the impact of all this has been, and I suspect Craig has a lot more insight into this than I do. My concern for Nielsen is to get the numbers as accurately as possible, and frankly I don't have as much time as I might like to evaluate what's going on. To a certain extent, the people meter sample removed the skew against

urban and younger households which existed in the old NTI sample. It is probably true that programmers are more sensitive to, or maybe more inclined to focus on younger audiences and urban audiences. One network has talked about dropping children's programming on Saturday morning, and the head of programming at that network suggested that since it is ridiculous to ask children under age 5 to push buttons they may consider not programming to children on Saturday mornings. Interestingly enough, the data that we have suggested that if we have a problem getting kids to push buttons, it's more the 6 to 11 year olds than these 2 to 5, presumably because the adults in the household will push the buttons for the 2 to 5-year olds more than they will for the 6 to 11-year olds.

It's difficult to measure teens; and I'm told by people who have teenagers that it's difficult to get them to do anything, let alone push buttons. And for a network like MTV, this presents major problem. I cannot stand before you and say I believe the people meter does a good job of measuring teens. It's hard to know what a good measure would be; since it's so hard to get an independent measure of teen behavior. But compared to some of the telephone coincidentals, it looks like the people meter does understate teens.

Where do we go from here? From Nielsen's standpoint, we would obviously like to develop and are trying to develop a more passive measure of the presence of the people in the room, or better yet, the attention to television. I would like to

announce that we have made a breakthrough and we're going to change that method next year -- "Starting next year, we're going to have a totally passive system!" -- but I can't because it's not true. That is what we're working toward, and I think any researcher recoils at the amount of involvement asked of our respondents. One of the virtues of the old meter was that it was totally passive. Once it was in the house, you didn't really worry too much about conditioning the user. As we go along, we are learning and making the effort to achieve a more passive measure in the long-run.

I think that those of us who have been involved in this over the past year, and really for the last three or four years, have gone through a very traumatic change. I have great sympathy for the users of the Nielson data. Some of them may not always have believed it, but it has been absolute hell for researchers and people in media departments. Buyers and sellers of advertising, have been forced to deal with this, because the data were new. Viewed from the outside, the change from the existing system to the people meter was really kind of minor, but for a network, even one tenth of a rating point or one rating point makes a big difference. We're still counting heads and we're not measuring any response other than simply attendance to television. It's not the kind of change that might have taken place if, for instance, the system for assessing the television audience was trying to measure enjoyment of television, or in some sense, response to television. But in a broader social sense, I'm not

sure that the change that we've gone through is effective. For those of us who have been involved, or those who make their living in television, it's obviously a huge undertaking. Thank you.

Cole: What special incentives would kids need? A hundred dollar bill or something?

Dimling: We send households catalogs periodically and for the households with kids, the catalogs were aimed at children, with things that appeal to kids, and also things that are essentially neutral with respect to television viewing. One of the gifts is not a Smurfs doll. The problem is obviously that you cannot reinforce the behavior that you are trying to encourage; you do it at great peril. At one point, early in its development, Nielsen talked to some psychologists. The obvious thing is to have a piece of candy come out of the meter whenever the kid pushes the button. However, that runs the risk of interfering with, and altering the child's behavior that you are simply trying to measure. Well, that's fine if you want to, but it's not too good if you're concerned about changing their behavior.

Maybe with the intellectual power in this room, we can come up with something, but I know of no good way that the behavior we want to reinforce, namely pushing buttons when you watch television, can be rewarded without changing the behavior we're trying to measure. It's a dilemma for which I have no good

solution. You have to try to get the parents to work with the kids; you have to get the kids to try to do it as well. We have, as mentioned, made a special videotape for kids to motivate them, and we had some psychologists involved in this who made a number of interesting suggestions that I think have helped. But I don't think anybody is completely comfortable.

Cole: Thank you. Our second guest is Craig Gogel who after a distinguished career at several agencies, is currently in charge of all of the domestic research operations of Backer, Spielvogel and Bates, the old Ted Bates agency which has just merged with Backer. It's obviously an important post. Some of his former stops in senior positions included Foote, Cone, and Belding, and McCann-Erickson, which of course are two agencies known to us all, and his last stop was at Bozell, Jacobs, Kenyon, and Hechhart. We have asked Craig to talk about the impacts of the meters on the decision-making process by the advertising programmers.

Gugel: Good evening, everybody. I would like to speak on the effects of people meter measurements, with respect to the advertising agency, and again, to summarize people meter interaction processes with respect to respondents.

The people meter is sitting on a shelf. I just press a button to register myself. In comes my wife, my daughter and my son. I push a button--one, two, three--and the job is done. While it's

not quite that simple, the introduction of people meters has made the respondent's participation process much easier. At one point, panel members had to sit down with a pencil and a diary and report, sometimes from memory, what program he or she viewed and when. The use of people meters has made the process practically instantaneous.

Let's move on now to people meter Year One and beyond. For about thirty years, the advertising industry used two separate methods for collecting television audience data; one, a set meter which automatically reported household tuning levels from one sample, and the other, the paper diary which described individual persons behavior from a second sample. In September 1987, Nielsen television indices replaced the paper diary system with people meters, and for the first time started collecting all this national television audience data electronically and instantaneously from one sample.

On the surface, the advent of people meters appears to have been a relatively simple substitution of one method of measurement for another. But in fact it was a rather confusing period for the entire advertising industry. Today we will review some of the effects this transition has had on various players, particularly within the advertising agency community, and we will also explore what we perceive as being a measurement environment for television without the diaries.

First, let's outline some of the events which led up to the implementation of people meter measurements. Up until

cable's "arrival" (I put arrival in quotes because it existed before that primarily as a medium for delivering broadcast signals), the advertising industry basically voiced little opposition to Nielsen's traditional network television audience measurements. In 1979, the three US television networks accounted for approximately 90% of all television viewing, and cable TV systems were primarily used to improve reception in geographically isolated areas. Since the number of viewing options was relatively limited, Nielsen's old meter diary system was capable of capturing most national television viewing.

The use of cable TV as an alternate programming medium was perhaps the turning point; it seems that at that point it changed. Cable's growing public acceptance also spurred the introduction of other program and broadcast delivery systems, namely Direct Broadcast Satellite (DBS), video cassette recorders, addressable systems, pay-per-view, etc. Rapid increases in cable and VCR penetration and continued erosion of the television network share during the 1980s made it necessary for the research community to examine alternate measurement options. Back in 1980-81 the broadcast year the three networks' prime time share approximately 83%; about 7 years later in 1987-88, it was down 19% to 57%. Cable penetration in 1980-81 was 31%. Seven years later it's up 74% to 54%. VCR penetration was practically non-existent in 1981, at 2%. It increased a whopping 2900% to 58% by 1987-88. And in the 82-83 broadcast year, there were on average 15 different options for channels available to

the average household in terms of television and by 1985-86 it had increased by 47% to an average of 22 viewing options. Diary keeping and its reliance on the respondent's memory relative to what is viewed and when becomes a less than adequate means of measuring a progressively more fragmented television viewing audience.

The implementation of people meter measurements affects different segments of the advertising industry in different ways. Agency media practitioners were under pressure to thoroughly analyze and digest all the changes brought about by people meters so they could provide their advertising clients with the ammunition necessary to fight the competitive advertising corps. Agency media research groups such as the one that I'm the head of, strove to develop necessary ratings projections. Where in years past there was an agency that would research and track three or four years worth of network household and television share and viewer-per-viewing-household data and arrive at actionable program estimate for the upcoming broadcast year, less than one year's worth of comparable people meter data were available on which to base these estimates in mid-1987. Agency media researchers went to great lengths to analyze and reconstruct existing media planning frequency systems by having to substitute people-meter-based research for meter diary data.

We essentially became the guardians of vast amounts of national television viewing data as the result of continuous meter measurements. Where once we may have been used to network

television data only on a regular basis, now we were getting network television data on a daily basis, on a weekly basis, and every permutation thereof. The potential is staggering when you think that we are going to start receiving cable television data and syndicated data on a similar basis. Over time it will be up to the media research groups in the agency, and also media planning groups, to integrate these expanded audience viewing data into the media planning and buying process. These two network negotiation groups experience problems similar to the ones we encountered when it came to developing rating tracks. They didn't have a lot of back data for testing purposes. However, internally, this did not really hinder the overall network negotiation process. While the television networks continued to guarantee CPMs for agencies in advertising, they built in an 8-12% transition-year inflation cushion to protect themselves against severe loss of revenue due to people-meter-based rating shortfalls.

Agency network negotiators conceded that the Year One of people meter measurement has not really changed the overall purchasing decisions in terms of networks, probably best reflecting the fact that the overall network upfront market remains strong, estimated at approximately 3.2 billion this year versus 3.1 billion for the last broadcast year. What has changed is the speed with which greater amounts of ratings data are available to verify program performance. Overnight ratings are, for the most part, now available the following morning, with the

exception of weekend data which is about a day later. Generally, from what we can see, there appears to be little desire to back away from the network television media on the part of our advertisers. While the confusion of the first year will subside as we move into Years Two and Three, the effects of people meter Year One will not soon be forgotten by agency media personnel.

Now, briefly touching on some of what we feel will be the measurement issues of the 1990s. As John mentioned, we believe people meters will become passive in nature and that this type of measurement system will likely become normal for the next 10 to 12 years. Whether the passive measurement device is a heat-sensing device, whether it is a video-type device or something else currently in development, we really don't know at this time, but we expect that people meter measurement will become passive in the next 10 to 12 years. The outlook is also fairly promising for local people meter measurements. I believe both Nielsen and Arbitron have studied the possibility of local people meter measurement. They currently have approximately 15-20 metered markets on a household meter basis, and it's possible that we will be moving in that direction in the 1990s.

Finally, we see single-source systems becoming the standard within the next 10 to 12 years. Single source, for those of you who may not be familiar with it, is a term that has come to mean an integrated or single sample from which you can draw a product usage information and marry it with television usage information. From my perspective, the perspective of our agency, we look at

single source as being something beyond that; it's one sample used to measure all media, whether it be newspapers, magazines, television, radio--it would be the ideal to integrate that information with product-usage information. But for the 1990s, the lesser scenario will be television viewing married with product usage a la ScanAmerica, which is the Arbitron system and some of the systems.

Cole: Thank you Craig. Responding to both John and Craig, and adding some very thought-provoking material is without question the preeminent American broadcast historian, Eric Barnouw, who has had an incredible career. Most academics would be happy to have done one tenth of what he has. As most of you know, Eric has written a three-volume study of American broadcasting, published by Oxford, which has won many awards. He has just completed his duties as the Editor-in-Chief of the International Encyclopedia of Communications, a four-volume work which includes 450 writers from 29 countries and some 1,200 illustrations, an unbelievable project.

I remember when I first heard that a scholar was going to write a history of American broadcasting, I smiled and said "good luck"; he not only pulled it off but after all these years he's unquestionably done a magnificent job. Similarly with the Encyclopedia of Communications, Eric perhaps is the only one who could have pulled off a five-year project which covers everything from ballet and dance to all kinds of speech communications.

There are two other works of Eric's which have particular relevance this evening. One which dates back to the 50's, called The Television Writer, is a real classic and I believe one of things he's going to discuss is the impact of people meters perhaps on creative artists. The second, which is still very much in print, is The Sponsor. For those of you who may not have read it, I urge you to do so. Bill Moyers said "I haven't read a more stimulating and enlightened book about television, my mind still burns under its influence." The Nation said "Eric Barnow should be recognized as a major national resource, this is a real classic book on commercial advertising."

We're very honored to have Eric Barnow, professor emeritus at Columbia University.

Barnow: When Barry Cole asked me to join you here today, I warned him that I am in no sense an audience research man. In fact, I told him that I know actually nothing about people meters. He said "Fine, that's what we want. Just come and react from the point of view of your own interests," which are in writing, directing and media history. Though I have been listening to this enlightening discussion somewhat like a visitor from another world, I've found it very helpful in understanding the issues. I do want to make a few comments, but I'd love to ask just a few questions first to refine my own understanding of the situation. I read somewhere that 20% of those watching pre-recorded tapes do so in prime time, and that 20% of those using

VCRs are watching pre-recorded tapes. Does that figure agree with your general impressions?

Dimling: I don't have those figures at my fingertips. I see conflicting data. One source has indicated a substantial amount of use of VCRs for pre-recorded tapes, and another source said much of it is tapes that have been recorded off the air, so the evidence is conflicting.

Barnouw: Does the figure seem to be going up or down?

Dimling: I'm sorry, I don't know.

Barnouw: I find this statistic, and whatever is happening to it, of particular interest because everything else that reaches the television screen comes through a licensed medium. The networks are, after all, licensed media, as are cable systems and satellites and so on. But material that comes through video cassettes can include a lot of other material that has not passed through any of those other systems, and this creates, at least theoretically, terribly interesting social possibilities in terms of upheaval.

I was talking recently to an Arab scholar who was spending some time in Saudi Arabia observing what's happening there, and he pointed out that Saudi Arabia has never had fizz. The Islamic ban on images -- their aversion to images has kept them from having theaters -- but they have introduced television and are going hog wild with it, particularly the upper classes who all

have television sets now. But, he said, what they're using half the time is not the official programs that coming through the system, but other kinds of material; they're using pornographic material being smuggled into the country, pirated Indian films, pirated US films, imported USSR films. In other words, a tremendous amount of material that is capable of introducing new ideas and disturbing the ideological equilibrium of the country. He found this extraordinarily interesting, and that this possibility exists in videocassette distribution is something that may in the future be of interest.

Let me ask another question. According to a recent article in Channels, perhaps this is an obsolete figure -- only about 55% of the people that Neilsen approaches are willing to let Nielsen install meters. Is this an obsolete figure?

Dimling: No, that's absolutely correct. And, for your information, the corresponding figure with the old household meter system was about that. It was maybe a couple of percentage points higher, but that's a typical figure.

Barnouw: Are you fairly confident that the 45% who say no are demographically similar to the 55% who say yes.

Dimling: Demographically yes.

Barnouw: That's interesting.

Dimling: The question, of course, is viewing behavior.

Barnouw: No, I meant in terms of are they both equally accurate

samples of the universe? The 45 and the 55? It's hard to believe.

Dimling: Demographically, if you look at things like age of households or family size, there are some modest skews, but basically the sample represents the universe fairly well. On some soft data like education, there's an upper education skew. But that's a little hard to evaluate because the data we're getting on the education of the household as well as the universe estimates are both soft figures.

Barnouw: Is fatigue the right word when you're worrying about other things? I was once approached by mail to become a Neilson family, and I remember there was a great appeal to my sense of pride in becoming a Neilsen family. Also, they appealed to our sense of responsibility in helping to decide what American people were going to see. Is it merely fatigue or does the sense of responsibility wear off and how fast does it wear off and how do you know that two years is a good time? Might it happen in 6 months?

Dimling: It's not a discontinuous function. It doesn't end just in two years. Two years is a trade off between things like the cost -- the shorter the turnover the more expensive over a period -- it becomes more difficult to do things like accumulate analysis.

Barnouw: Things wear off so much more quickly. I gather that you eliminate households that make mistakes, including large families, etc. How large a family can you accommodate on the people meter? How many people can fit on these machines?

Dimling: The standard people meter has 8 buttons. In large families we have a special meter that accommodates 16 positions.

Barnouw: Do you run into the problem of a routing factor that was sometimes involved in reporting in the past -- that is to say, if you want the "Cosby Show" or "L.A. Law" to do well, you might list them or pull the button for them even though you're going to watch a sexy movie. Does that happen?

Dimling: It's much more difficult to do that with the people meter. The set meter, of course, measures what the set is tuned to so you can't really pull that. You can turn on a program and not watch it if you'd like. With the diary though, you could intentionally write down the "Cosby Show" either because you like it and you wanted to vote for it, or if you forgot you didn't watch it. The diary is more susceptible to that kind of behavior than the people meter is.

Barnouw: I foresee the day when "Murder She Wrote" will be about somebody who tunes in to a baseball game and pushes himself in as watching this program and then, having established an alibi,

goes across town to commit a murder.

When I got into radio in 1931, writing and directing programs, it was just after the Crosley rating had been introduced, which depended on calling people and asking them what they had been listening to for the past few hours. That of course involved memory hazards and favored the more spectacular programs over the more routine programs, and so there was a lot of dissatisfaction with that method. A few years later, along came the Hooper ratings, which were coincidental, but were also confined to telephones and we were just finding out how fragile a figure that was since a lot of people didn't have telephones during the Depression. Later on, Neilsen came along and provided the reach for a good sample. However, as you know it was always under attack on various grounds. I remember from the point of view of a writer and director, we didn't like any of these systems; we complained that they were not accurate, and we could always find arguments about why they were not. However, I suspect that the certain amount of hostility that we, the program field, felt towards the ratings was really based on something quite different. I have no doubt that ratings are moving closer and closer to being extraordinarily accurate, and I think the people meter helps that. For the advertiser, accuracy in numbers and demographics is clearly all-important, but this affects writers and directors in a very peculiar way.

There have been patrons and sponsors for many centuries, but

never before in history have writers and artists been required to target their work to women between 18 and 49, or upscale males between 35 and 55. This seems to stand the creative process on its head. There seems little doubt that pressure of this sort pushes the industry toward formulas and formulas based on formulas. As I recall, in the 1950s and 1960s television was thought of by writers and directors as a pretty adventurous medium; you could try almost anything. Hollywood--the motion picture field--on the other hand, was considered formula-ridden. Today, as I talk with writers and directors, I feel the relationship has switched. Now the artists work in television in the hope of making some money so that they can concentrate on the theatrical motion picture a field where anything is possible. I mention this to suggest that as you move closer and closer to total success, there are risks. During my work at the Library of Congress, I remember Daniel Boorstin, when speaking of innovation, said, "I guess we've already solved about all our problems. All we have to do now is cope with our solutions." I guess commercial television is going to have to cope with its solutions.

When Crosley ratings began, there was a trade periodical that said it was equivalent to determining the number of crickets chirping at any instant in a swamp on a foggy summer night. It seemed absolutely impossible at that time, but with the people meter we are approaching a point where we are actually doing that and the implications of that are still incomplete.

Barry: Among the many other accomplishments, Erik created a motion picture broadcasting report resource at the Library of Congress. We now have time for questions and comments. Does anyone want to comment before we open things up?

Dimling: Let me make just one comment. Eric, I have very bad news for you about the subject of prerecorded VCR tapes; Nielsen is testing a system that puts codes on those prerecorded rates, so that we can measure the viewing of prerecorded tapes, as well as taken-off-the-air, which opens them up as yet another vehicle for advertising.

Cole: In other words, if I got an X-rated movie at the store, you would have that on your Nielsen?

Dimling: The codes are just being put on a few titles at this point.

Barry: It's coded as it is played, you mean?

Dimling: A code is put on the tape where it's being duplicated, and if you happen to be in the Nielsen sample, the equipment you have on your meter will pick up the title. This is now being played and it's not something that was recorded off CBS last Thursday. It is the title of the prerecorded tape.

Barry: Sounds like a great research project for behavior of those in the Nielsen sample and those not in the Nielsen, in terms of behavior of VCRs.

Question: Does that apply to Hollywood recorders, or does it apply to other things, for example, tapes which the AFL-CIO distributes to unions throughout the country?

Dimling: Right now it's only being done on a few titles, and obviously the producers and the distributors have to want the code on the tape. Candidly, I don't know how far this will develop as a business for Nielsen, or for anybody else, but the technology exists.

Barry: Questions or comments?

Question: Is people meter data being used for purposes other than ratings? I remember about two years ago, Nielsen or another company developed people meters that scanned the universal product; they could go to a supermarket and buy products, and for those two products and then see what program they were watching and what products were advertised.

Dimling: It is going on, but Nielsen's people meter sample does not include that. In another area of Nielsen, we are developing that kind of service; Arbitron's Scan America service that Craig

referred to exists only in one market now, the Denver market, and does exactly what you described. It collects viewing data with the people meter, although different one than what we described, and also asks people to scan the UPC codes when they bring products home.

Cole: These people are paid to do this, I hope.

Dimling: They are paid a fair amount of money to do this.

Cole: And what is being done with that data?

Dimling: It is primarily being looked at from a market research standpoint as an integration of product usage and the television viewing information, and it is strictly experimental at this point. The Scan America people meter test in Denver is one of the buying tools, but that is exclusive of using the household people meters.

Question: Craig, if the habits that are being recorded are so critical of advertisers, why is the advertising industry so willing to pay those kinds of rates? And what are they going to do with the data that you are talking about in Scan America?

Gugel: Basically, there is a certain prestige in being associated with network television--the sights, sounds and motion of the

medium itself. Even though network shares have declined in the 1980s, it is still the best medium to reach many people simultaneously, it allows for a lot of creativity in advertising. There are different types of things you can do with television, for instance, with music and visuals, that you're not going to be able to do in print, the rates are constantly being contested, but it's part of doing business at this point. What will we do once we get the Scan America data? We will probably be looking at it for a while, evaluating the information as it becomes available, but right now we consider it strictly experimental.

Question: In each of the last two summaries, there have been a lot larger than the average CPM increases. Does that mean that accurate measures are still vastly unavailable?

Dimling: No. I think one of the problems you have with the CPM increases is the fact that we do have people meter numbers versus diary numbers broadcast in years past. You have certain shows, possibly the more highly rated shows, rated high under the old diary system coming in with lower ratings than they used to. During people meter year one, we had network television cushioning the blow somewhat. So, if we were not able to project accurately what the ratings were going to be, given the fact that we didn't have sufficient data, they would not be set back to the point of hardship. I think that's one of the reasons you see the CPMs go up. For guarantees in terms of CPM which they still

offer agencies and advertisers, you are going to pay a premium. Does that answer your question?

Question: I'm fishing for something on the outlook for network pricing over the next several years.

Dimling: CPMs will probably continue to increase, although I don't think they are going to be increasing as much in future years as they have in the last couple years. I think they are going to moderate as we move into the 89-90 broadcast year. A lot of it depends on the economy, and your guess is as good as mine. It's a supply and demand situation. If there is an oversupply and not enough demand, then we may see CPMs go down.

Cole: My understanding is the sample is a new sample because you are extending it and getting rid of some people. It is almost three-quarters new this year as opposed to last year.

Dimling: That depends on what point in time you're measuring. We are turning over the sample every two years, which means half the sample is new each year. In addition, we have gone from 2,000 households last year to 4,000 this year. So right now in the sample, there is not quite as much as three-quarters, but in a typical year, we will have more than half of it be new.

Cole: I was intrigued about what John said about sending them a

catalogue. You mean that you send them a catalogue of things from which they pick a gift?

Dimling: Yes.

Cole: So that in some households they might pick a child gift and in others they might pick an adult gift?

Dimling: That's right.

Cole: And there is a reward of some sort?

Dimling: Yes.

Cole: In the old days they used to pay to put Nielsen meters in, correct?

Dimling: Yes.

Cole: What is the payment now for people meters?

Dimling: We still pay. It's not a lot of money and it's not a number we publish, but it doesn't change anybody's standard of living. In the Scan America sample, they have published a number. I guess it is \$300 a year. That's a substantial amount of money; the Nielsen thing is not anywhere near \$300 a year.

Question: How do you handle multiple set households?

Dimling: We have a meter on each set, and any viewing that occurs on the set is recorded and goes into the averages. If the same person is logged in, if the button for the same person is pushed on more than one set, I think we have an edit for that. It credits it to the button that has been more recently pushed. That is, we don't count the person twice. That almost never happens;

Question: Related to that, I have heard of situations where a person is watching maybe two or three programs, a few moments at a time.

Dimling: That's one of the real advantages of the people meter, for getting demographic data, because the tuning of the set is measured electronically. That was true of the old household meters; that kind of "grazing" could be accurately measured, but in the diary, there is no way to pick up that behavior accurately. But once a person pushed the button, it doesn't matter how many different changes of channel they make, the people meter system will keep track of it automatically. One program will get credit for 30 seconds and another this program will get credit for two minutes.

Question: Suppose someone in your sample is out of town, watching

television at a hotel, or at someone else's house; is that taken into account?

Dimling: The answer is yes and no. We measure visitor viewing in households that are in the sample. If I happen to have a Nielsen meter in my household and you come to visit me, I will explain that we want you to record your viewing. You press a visitor button and a light will flash asking your sex, and to log in your age. So out-of-home viewing in another household is measured. What Nielsen does not do, and no other commercial syndicated service does, is measure viewing out-of-home, out-of-households-- in second homes, for instance, we don't have meters.

Question: Would the diary take care of that?

Dimling: No, the diary really wouldn't. The diary could, in principle, take care of it. But television diaries have typically been tied to sets. If you are in a diary sample, you are asked by either Arbitron or Nielsen how many sets are in the household, and you receive as many diaries. There is some work underway testing personal diaries for television, which would presumably allow you to record viewing in other people's houses.

Cole: Is that the two things you would ask, age and sex. You wouldn't ask race or that type of thing?

Dimling: It can and does. We have just a few sets in the sample like that. The issue is what do you do with the data. We really need to look into this more and talk with the industry about it. What we have been doing is crediting the channel to which the audio is tuned. There is no reason we couldn't credit both, fortunately, we have some time to think about that.

Question: What does the people meter look like?

Dimling: I wish I had brought one with me. The Nielsen system comes in three parts. A box sits on top of the set with eight buttons on it and lights below each button - a row of red and a row of green lights. When the set is turned on, all the red lights come on. When you push your button the red light turns to green. That's all you really have to do. There is also a verification button, a so-called OK button that you are supposed to push, but even if you don't push it, we will record the viewing. You can also enter the viewing with a remote control; a simple little key pad that communicates with the meter on top of the set.

Question: And this information is collected and transmitted over the phone, in the middle of the night?

Dimling: Exactly. It is stored electronically in the household. That is the third unit. And in early morning hours, there is a

call made.

Question: Do you sign off?

Dimling: Yes, when you stop watching, you are supposed to push your button again and the light goes from green to red and you are no longer recorded as watching. You are supposed to log out. If you don't log out, as far as Nielsen is concerned, you are still watching television. That is one of the reasons we look at statistics on viewing behavior that nobody has ever looked at before-- the number of changes per hour in the audience, the number of times somebody comes in or out of the audience. The people meter showed more such changes than the diary did.

Question: Do you take the results at face value?

Dimling: We absolutely take them at face value, with the following important exception. We have editing rules, on the basis of which we decide to accept data from the household for the day or not. Typically, we are accepting almost 90% of the households now.

Question: You discard ten percent of the data?

Dimling: That's right. Sometimes because we don't get data back frequently. The largest percentage of the time because a

household has told us, or we learn that a household has a new television set or VCR that we have not yet been able to meter, and if we don't have all sets metered, we won't tabulate the data from the household.

One of the conditions that leads us to drop a household out from the sample is if there is a substantial amount of what we call unidentified viewing--which means that the set is on, no buttons have been pushed and the channel has changed. We figure that if the channel has changed and no buttons have been pushed, we are probably not getting good data from the household. If that amounts to 10% or more of the total viewing of the household per day, we will reject that person's data from the household.

Another condition that we call zero audience is when the set is on, there has not been a channel change, and no buttons have been pushed. We except that as good data on the theory that indeed there are times that the set is on and there is nobody in the room. But if the channel is changed, that says wait a minute.

Question: When did you begin implementing people meters?

Dimling: The sample started in September 1987 at 2,000 households, an increase from the 1,700 that had been in the Nielsen sample for several years. The sample size has increased an additional 2,000 households since September, to 4,000, and that is critical because, as Barry said, we are interested in

measuring not just network television. You don't need 4,000 households to get an accurate, reliable measure of network viewing, but for a cable, network getting a "1" rating or "0.9" rating, the relative error gets very large. The larger sample size is really for measuring smaller audiences.

Question: How much time do you and your people spend looking at these results that Nielsen gives you. I am particularly interested not so much in the networks, but when you are talking about cable...

Dimling: There is not a lot of cable information available at this point, but we did spend a considerable amount of time with networks, not just looking at network ratings, but also developing a new frequency system for use by the TV planning groups, including a number of studies of how audiences accumulate over time, integrating this data as we go along. I would say six months worth of time has been spent working on creating new frequency systems based on the people meter data. Obviously, the greater sample sizes have permitted us to go even deeper into demographic cross-breaks. We are not limited to your standard 18-49 or 18-34 year olds, but are able to look at it in much smaller pieces. Constantly analyzed from the perspective of prime time, we don't look at every possible demographic break, but we certainly do for individuals, clients, that want more than just your traditional 18-49 men or women group.

Question: How is this information made available?

Dimling: Well, we publish characteristics of public data by the usual demographic characteristics -- age, sex, race, household income, education, family size... I think one of the interesting things is that, for the first time we have data on a continuing basis on individuals. [Under] the old diary system people kept a diary for one week were off for two weeks, then kept it for the fourth week, because we felt we couldn't ask them to keep a diary continuously for three years. So, we didn't have really good data over a long period of time. With the people meter, for the first time, you have the ability to know what an individual has done across literally a year or two years in some cases. We have developed a cumulative audience system, which people are really just beginning to use. And with this data, it will be possible to have much more understanding about how people use television. Literally, it was not possible to know, from the normal syndicated data, before the people meter, whether a given individual watched four consecutive episodes of Cosby. You knew whether the household watched, but you didn't know whether the person watched. If you're a network, you didn't know whether a person who saw a promo for a new show ever watched the new show or not. You might know about the household, but you wouldn't know about the person. So, I think that we're really at the beginning of an exciting opportunity for trying to understand

more about the media.

Question: Do you have plans to report audiences for commercials?

Dimling? We do. To do that well, from the standpoint of a syndicated service, you need a couple of things. First of all, you need very accurate information about when commercials occur. To do special studies is no big deal, since you know that tonight at 7:18 there is a commercial on NBC. But to do that routinely, you need specific information, which Nielsen has from our system of electronically monitoring commercials. The second thing you'd ideally like to have is some form of passive measurement.

Although Nielsen is selling people meters, I can't honestly say to you that I think people meters accurately keep track of every time somebody leaves the room and comes back at a commercial break, if you leave to go to the bathroom or get a sandwich. Sometimes people push buttons, you can tell that from the data, but I'm sure that not everybody does that. A company called the Harvey Percy (?) Company, which recently went out of business, tried to develop such a service, and, for whatever reason, they were not successful financially. We don't yet have that passive measurement, although we're testing ways to do it. As a first step, next year we will be publishing just household tuning data, with the demographics as reported by the people meter on the basis of one-minute intervals. We're going to call that a commercial placement report -- it's not literally commercial by

commercial, but will show what happened minute-by-minute and what the commercials were. From Nielsen's standpoint, the interest has been kind of mixed. My sense is that advertisers seem to be a little bit more interested in it than some agencies are. Some people think, my God, what are we going to do with this data? Maybe this is a little bit facetious, but some agencies will recognize that NBC might say to them, and Bill Reubens has said it to Nielsen, "you're going to report commercial data: great." I want to know if Craig's commercial is losing audience for me, because, if it is, then I'm going to charge you more money on it. So that the reaction among agencies has been somewhat mixed.

Gogel: From our perspective, in terms of commercial audience, a wealth of data can be gleaned from having as John says, continuous commercial audience measurement. How do you handle all that information? What kind of a system can you develop that's going to be able to give you the information that you want, precisely, minute-by-minute? What are you going to do with all of that once you have it? From our perspective, it would be better to have benchmark-type data, periodic studies, information that might be used on a pre-planning type basis, rather than having commercial ratings on an ongoing basis daily, minute-by-minute. I don't think people have really dealt with the issue as much as we have to. I think we'll have to deal with it in the future; and a lot of it will depend on the delivery systems. What kind of amplification can you develop that will handle

commercial ratings and make the information useful? Having people meter commercial ratings data on reams of computer printouts, or on a multitude of diskettes is not going to really do us any good. Where there are time constraints, we have to realize how to integrate the data, and use it so that it's understandable and continuous.

Barnouw: On a historical note, I recently was talking at lunch with somebody who has been in the business for a while. Many years ago, Nielsen reported, in the so-called "Blue Book," minute-by-minute data; not commercial audience data, but minute-by-minute data. I was talking to somebody who early in his career wanted to buy the last minute in a commercial pause, at the end of a program. This was in the old days, where the industry was so small that this buyer literally got a call from the traffic department at CBS, saying, "we'll do this, people don't usually ask us to do this, but you understand that's right at the end of the program." And the buyer said, "Yeah, I know that." The program was CBS Reports, which did not have a large audience, but the buyer still wanted it, and the traffic department said ok. It turned out that CBS Reports was a lead-in to the Beverly Hillbillies, and that buyer made so much money for his client paying CBS Reports prices and getting the Beverly Hillbillies audience.

Question: If somebody says he's tuning in to part of one

program, part of another program, and part of a third program, how does that translate into ratings for those three programs? Do they all get credit for being watched?

Dimling: We report an average audience, an average minute audience, and so if one program is watched for twelve minutes, one for seven and one for eleven they each would get credit for that many minutes of audience.

Question: If you could identify a bottom line, what's happened in buying patterns of agencies as a result of people meter versus diaries? Who wins and who loses? Which networks, which programs, which types of shows?

Dimling: I would say, from Nielsen's perspective, the people meter wins. It's certainly a more efficient, and a more accurate way of measuring television audiences.

Question: I wasn't thinking of that. I was thinking of which programs or which networks win? What have the results been?

Answer: Without getting into specific programs, what were the more highly rated programs under the diary system were perhaps hurt the most as a result of people-meter measurement, since they were the types of programs that people would pick up at the end of the program or at the end of the night, when they filled in

the diary, and actually wanted to respond, "yes, we did view this program," because it was a popular program. I think the lower-rated programs were probably hurt less as a result of people meter.

Question: The initial effect on the news programs was rather a shock, in terms of CBS vs. NBC. Has that remained that way?

Dimling: It seems to have settled down. I haven't looked at it recently, but the numbers seem to have come closer.

Cole: John, just one final thing. In terms of the demographics, the information about Blacks and Hispanics. Is it qualitatively different than the old system?

Dimling: No, it's substantially the same. There's more of it. We can get more information, and the sample size is greater, it's much larger, so you can do finer breaks.