

Minutes from Quarterly CRE Meeting
September 10, 2015
Convene Conference Centers
New York, NY



Members in Attendance: Joe Abruzzo, Brad Adgate, Kathleen Bohan, Artie Bulgrin, Cheryl Brink, Sara Erichson, Nancy Gallagher, Janet Gallent, Hadassa Gerber, Tanya Giles, Buzz Knight, Pat Liguori, John McMorrow, Jed Meyer, Beth Rockwood, Ceril Shagrin, Tom Ziangas

Present by Phone: Joanne Burns, Paul Donato, Janice Finkel-Greene, Billy McDowell, Andy Rainey, Stacey Schulman, Howard Shimmel

Also Attending: Mark Braff, Tom Campo, Lynda Clarizio (by phone), Shelley Drasal (by phone), Gayle Fuguitt, Diane Laura (by phone), Carl Marci, Christine Pierce, Horst Stipp, Richard Zackon

Absent: Jeffrey Graham, George Ivie, Tony Marinaro, Keenan Pendergrass, Dave Poltrack, Robin Thomas

Opening

Ceril Shagrin called the meeting to order at 10:01 AM and thanked everyone for attending the CRE's annual all-day meeting. Ceril reported questioning people within her own company and found low awareness of CRE and its projects and she wondered how this was at other companies.

Ceril distributed lists of who at CRE member companies received the CRE NewsWatch and Newsletter. Ceril encouraged members of the Council to review the list and let Shelley know of anyone who should be added. She also requested people speak about the CRE and its valuable work with the people at their companies.

Richard Zackon asked everyone to introduce themselves and say one thing of their choice that was not more than two sentences.

ANA Masters of Measurement

Richard shared the draft of the presentation that he will be giving at the ANA Masters of Measurement conference on September 17th in Miami. The [presentation](#), linked here, what the Council for Research Excellence is, the range of its current projects and some personal thoughts on mastery and measurement. He grouped CRE projects as those designed to improve data quality (how good are our audience metrics), to help understand viewing (what should we be viewing), and the application of advanced techniques. He then reviewed the following CRE projects:

Data Quality: 1) Local marketing mix models, 2) Audio/video dual measurement, 3) White paper on data validation.

Understanding Viewing: 1) Long-term ethnography, 2) Video platform evaluation, 3) Concurrent use across platforms.

Advanced Techniques: 1) Bayesian statistics and social media, 2) Machine learnings on local ratings, 3) Neuroscience applications in audio measurement.

The presentation concluded with reflections on how to keep up as a master of measurement.

- The rate of change in the media landscape is itself increasing. The bad news is we can't keep up.

- The good news is not to worry: we can navigate the changes with a clear vision, imagination and a good set of tools.
- Continuous retooling is required as tools grow obsolete.
- New tools are often of untested quality and value.
- Acquire new skills to use the new tools.
- Appropriate the new discipline of data science. The problem is not legacy systems but legacy thinking.
- Ask new questions and re-ask old questions.
- Collaboration expands points of view and breeds innovation. Mastery is a practice, not a status

Howard Shimmel said that Richard should encourage advertisers to get involved with the CRE and Richard agreed.

Artie Bulgrin said that we are in an era of confluence of big data and measurement and the CRE is in a powerful position to do something about that. Beth Rockwood added it is all about understanding consumer behavior. Howard suggested that the CRE reach out to Ross Link and Neil Kantar, who are in the mixed analytic business.

What do companies need from Audience Measurement? What are the questions CRE should be asking for 2016 and beyond?

Ceril pointed out that in planning for 2015, the CRE began to focus on specific research questions rather than general topics. It would be good to take the same approach for 2016. Joe Abruzzo cited questions around Nielsen changes in what they measure. He would like to get a better handle on the migration of viewing on platforms such as Apple TV, ROKU, and Chromecast. Tanya Giles had questions about the decline in viewers age 12-24. Tom Ziangas mentioned viewing of smart TV's and apps. Nancy Gallagher had questions about the viewing lifecycle of specific pieces of content. John McMorrow mentioned a company called Sorenson, which follows migration of the TV screen whether viewers are watching YouTube or traditional TV. Jed Meyer noted there are a number of companies that do automatic content recognition. Pat Liguori identified the problem of incomplete measurement because there is increasing value going unrecorded. She is also concerned with the future viewing behavior of 18-24 year olds. Janet Gallent echoed the concern of listening so as to understand millennials. Kathleen Bohan broadened the concern to include 6-12 year olds. Richard said he would check with GfK to see what we have learned in the ethnography about young people. Sara Erichson offered that the industry needs to focus more on over-the-top viewing (OTT), not just apps and computer based viewing. OTT viewing has become the biggest bucket after traditional TV. Sara also pointed to some research that Richard had requested regarding long-term trends of 18-24 year old viewers to help us predict future viewing of millennials. Glenn Enoch is at work on this and will report back to the CRE in December.

Howard Shimmel interpreted the changes as representing each new device being its own ecosystem. It is important to know how consumers are making decisions. He also proposed the issue of how ratings across platforms are best integrated. Jed Meyer said to expect a report out on program discovery. Tom Ziangas noted recent announcements from Apple TV and how TV is becoming app based. He also said that AMC is working on how to aggregate ratings across platforms.

Jed Meyer expressed concern about the perception that young people don't watch television. Artie Bulgrin said that the future of the industry is hybrid, connecting census data to the measurement data. He added that we need consistency in the relationship between impressions, unique audiences, and time. Nothing is more important than understanding the relationship between net reach of a campaign and ROI. Artie echoed Sara's concern with OTT. Finally, Artie declared that measurement is no longer about Nielsen but is a team sport; it requires investment and Nielsen cannot do it alone. Buzz Knight pointed to questions around watermarking technology and software development kits (SDK). Andy Rainey noted the question of how radio works with other media is important. Cheryl Brink said that as we look at Big Data and modeling solutions, we must not lose focus on understanding the context for the consumer and why they do what they do. We should be looking at clusters of behavior. She was also concerned about

the deterioration of predictive effectiveness. Tom added the challenges of combining databases to build predictive modeling. There are many black box products in the market and it may be an opportunity for Nielsen. Sara noted that Nielsen has a lot of tools and data to help in the predictive work. Pat Liguori referred to the potential dangers of fused data. Nancy Gallagher commented on the challenges of technological change and that we don't have engineers on the CRE. Sara agreed regarding the importance of Nielsen's technology relationships with its clients. Tom noted the challenges of his relationships with engineering people in his company.

Ceril closed the conversation and promised we would get notes out the Council as we plan for 2016.

How has CRE Research Impacted Nielsen Practice?

Christine Pierce categorized the impact of CRE projects into two groups: Those studies that influenced Nielsen's recruitment and statistical procedures (Video Consumer Mapping, Non-Response Bias, and Media Related Universe Estimates), and those which served as education and input into research strategy plans (Evolution of Set-Top Box, State of Set-Top Box Viewing Data, Big Data Primer, Diary Market Ratings Analysis).

Christine noted that while people at Nielsen recalled the VCM and original Non-Response studies and claim some recruitment practices were changed, they could not cite a specific change. Given people recall there were changes, but cannot recall specifics, we need to have a better process and documentation of Nielsen responses. Perhaps, Nielsen should issue a final report rather than just a response to each study.

The CRE Big Data Primer has resulted in a lot of internal discussion. The CRE Diary Market Ratings analysis helped Nielsen better understand limitations in diary measurement. Christine was excited about potential impact of some of the current studies coming out the Audio, Big Data and Data Quality committees and Nielsen's ability to react to them.

Sara Erichson asked whether CRE designs studies to make them practical for subsequent Nielsen use. Ceril said that beginning last year the Council began to define its research as responses to specific research questions. Richard said that Insights to Practice was set up as a separate committee to act upon the findings of specific research committees. The committee is still working on improving its process. Christine said that Nielsen has worked to ensure that the right Nielsen person is on each committee.

Joe Abruzzo reiterated the importance of identifying how the research could be used as part of the project vetting process. Christine said she would weigh in on each project as to its value to Nielsen. Beth Rockwood asked, "Is there a way to take that one step further and say, 'What Nielsen decisions would this question actually impact?'" Ceril said the current process is creating a closer relationship with Nielsen. Hadassa Gerber weighed in on the importance of timely integration of findings. Paul Donato commented that a study that Billy McDowell will propose in the afternoon is one that is important to Nielsen and results are turned into practice. Tom Ziangas suggested that if all the clients are under NDA, that Nielsen might use this group to help validate its research. Christine expressed the delight for her and her people in engaging with the CRE in a non-adversarial way. Richard speculated on the value of viewer segmentation based on technology. Artie Bulgrin acknowledged the value of a live panel. Christine ended by saying whether it is survey or panel it is a must-have for Nielsen.

How might the CRE better organize itself for effective action?

Richard proposed some changes to CRE practice. Following Stacey Schuman's committee, suggested that 30 minutes be the default length for committee calls. He also suggested we doodle in 30 minute blocks. Cheryl Brink recommended that people prepare for the meeting 30 minutes in advance. Joe Abruzzo noted that groups work better with fewer members. Pat Liguori expressed concern about people's fears of speaking up and the disincentive of casting no votes. Tanya

Giles suggested that chair people encourage people to play devil's advocate and find potential weaknesses. Janet Gallent said we should be more reflective in our funding. Buzz Knight agreed in the value of smaller committees. He also suggested a call across committee chairs and Richard replied this was the intent of Insights to Practice. Hadassa Gerber made the claim that CRE research should improve measurement for everyone not just Nielsen. Nancy Gallagher expressed concerns that too many members and too few committees would be a problem. Richard assured the Council that this was not the case. Richard asked whether an all-day meeting like this is worthwhile. Cheryl suggested that an annual full-day meeting may not be efficient. Jed Meyer felt one full-day annual meeting is sufficient. Hadassa suggested that we build in some time in each quarterly meeting to discuss the topics raised today. Pat also endorsed the idea of more discussion by the full council. Ceril suggested lunch be served at noon and the meeting start at 12:30. Tom Ziangas suggested we might meet around the time of the annual Nielsen conference.

Sara Erichson noted that Nielsen may have a media client meeting next year and we should discuss. Cheryl noted that we may want to re-think some of our committees; we don't want to turn digital into a silo. Buzz did not propose any changes to audio. Janet spoke to the value of sharing work across committees. Joe suggested we bring focus on changing video distribution. Cheryl noted the importance of OTT and understanding the life cycle of content. Richard noted that it may be time to retire the Digital Committee as such and look into convergence and OTT. John McMorrow suggested people make a list of the top five things that keep them up at night. Ceril reminded the Council that the current committees began with a collective effort to establish a list. Sara noted some areas of concern at Nielsen that CRE work might inform: integration of third party data, hybrid measurement, the definition of viewing and out of home viewing.

Cheryl Brink, along with other members, stressed the importance of mobile and suggested the Digital Committee might be a good home for that conversation. Joe added that in the industry interviews his Committee had conducted, mobile measurement rose to the top. Pat expressed concern about the lack of a single metric across platforms. Tom Ziangas echoed the concern of multiple vendors and multiple metrics. Ceril said the platform evaluation is a good start here. Sara weighed in that not having common metrics raised a lot of confusion. Cheryl suggested that we invite the MRC to discuss their two second standard. Howard suggested inviting the ARF to discuss their ground truth experiment. Hadassa suggested including engineers in our work. Sara cited Gene Powell. Tom Ziangas reminded members that much of the viewing on digital was originated as TV programming. Jed Meyer agreed.

Meeting adjourned for lunch.

Visit from Gayle Fuguitt

Gayle Fuguitt, CEO of the ARF, was invited to the CRE meeting to share research activity at the ARF. She said she had been at the ARF approaching three years and noted research has never been more important.

She offered some key facts: advertising works despite questions in many people's minds; business models are changing. ARF is conducting (ground truth experiments) about how advertising works. Cross-platform measurement is the number one thing, as well as pinpointing the greatest return on investment. Jasper Snyder is leading ARF in this area. Horst Stipp is leading work on using neuroscience to learn how the brain processes advertising. Another initiative is mobile research quality.

ARF is looking to develop a checklist for effective research using mobile. Chris Bacon is in charge of that effort.

Gayle reminded the CRE about upcoming ARF research events and their call for content. She concluded by saying, "There has never been a better time to be in research. We can no longer be the smartest people in the room, we need to be the most influential." Richard thanked Gayle for taking time out to speak with the CRE.

Neuroscience

- 1) Carl Marci**
- 2) Horst Stipp**

Dr. Carl Marci was invited to the CRE to update the Council following Nielsen's recent acquisition of Innerscope, which he founded. The new company is Nielsen Consumer Neuroscience. Carl began by saying there are three things that Consumer Neuroscience needs to do. First, it has to predict behaviors you care about. Second, it has to add to what traditional measures provide. And third, it should have explanatory power. He shared a high-level view of brain function with the CRE. Carl recommended two texts: Daniel Kahneman's "Thinking Fast and Slow" and Antonio Damasio's "Descartes' Error."

Carl stated that by combining Nielsen and Innerscope, we have the opportunity to go beyond EEG and eye tracking and add new capabilities to our tool-kit. The company focuses on consumer awareness, attention, affect/emotion, and attitudes. Practice areas include advertising, digital media, shopper and custom studies.. As part of his presentation, he offered four case studies.

Howard Shimmel agreed to continue a CRE exploration into the application of neuro methods and Horst Stipp agreed to partner.

Horst has been working for four years with the ARF on the application of neuroscience into the question of how advertising works. He began by endorsing Carl's point that different methodologies have different value and the key is to find the right combination. Horst noted two areas of success. First, demonstration of a correlation between neurometrics and sales measures and, second, enormous progress in the neuro technology. Neuro methods can be highly granular and detect information which people themselves can't report.

Horst believes that neuro can shed light on issues of second screen, which the CRE is considering. Turner has been doing work around how people scan the TV while engaging with a second screen. This is significant for the future of measurement. Howard echoed the significance of capturing phenomena that consumers cannot accurately report. A number of council members stepped up to participate and Shelley will put out an announcement for an initial meeting.

Tom Ziangas asked whether access to the Nielsen in-home samples might be an opportunity for neuroscience application. Carl said we are a couple of generations away in technology. Beth asked whether neuro could help quantify long-term impact of advertising. Carl believed it can if you can have the same subjects over time. One of the major current constraints in consumer neuroscience is that it is conducted in a single point in time.

Nielsen and Third Party Data, Lynda Clarizio

Nielsen had been asked by the CRE to share information about their hybrid plan and data partners. Lynda Clarizio stressed the importance of care in selecting partners and asked Christine Pierce to give an update. Christine put forth three questions regarding third party data: Are the data consistent (are there anomalies)? Are the data complete (are there gaps in coverage)? Are the data correct (are the data accurate)? Nielsen is moving from a panel-only measurement to a panel plus census measurement, where the panel serves as the source of truth to correct bias. Part of the process in selecting partners is transparency and the potential partners' willingness to work with auditors.

Christine also presented what is known as a confusion matrix, a standard way to classify errors in data (it can be found on the website at slide #26) including such things as false positive and false negative.

By way of example, Paul Donato noted that tuning behavior is one of the best predictors of household demographic composition.

Steering

Pat Liguori states that the Steering Committee recommend Tim Daly from ITN Networks for membership on the council. He was approved without opposition. Pat said that Mainak Mazumdar and the Steering Committee suggested that he first serve on a CRE research committee.

Finances

Richard reported that so far in 2015, the CRE has spent \$627,000 and another \$1,492,000 has been committed which leaves \$880,000 for additional research spending.

Data Quality

Ceril Shagrin began that at the June meeting the Council authorized \$60,000 in spending for a white paper on data validation. The committee reviewed proposals and has received a revised proposal from RTI in the amount of \$113,000 which is now recommended. The Council voted to spend \$113,000 for the white paper.

Ceril next introduced the topic of research on multi-device response bias. The question we are trying to answer is determining the bias in not metering all non-TV devices. Most of the work will be done using Nielsen because we want to re-interview Nielsen sample. Nielsen has already been hard at work on designing this study. This test is to measure the tradeoff between a higher response rate without measuring additional devices and a lower response rate with measurement. A sample of 4000 will cost \$1.5 million, a sample of 2000 will cost \$1 million. \$50,000 is requested for a consultant in 2015 with the remaining funds being spent in 2016 and 2017. Ceril requested the full expenditure. Pat asked whether the consultant would be helpful in determining the sample size which would also give the Council time to study the proposal. Christine said that Nielsen could address the sample size question but the consultant would provide an outside perspective. Richard noted that the Data Quality Committee had not yet voted on the design or the expenditure for the full project, just the \$50,000. Ceril said we would not lose any time if we just voted on the consultant. Howard offered that this study could help Nielsen as it shuts down extended screen. Christine replied that Nielsen expects learning on getting respondents to accept measurement on tablets and phones. She added that Nielsen is concerned with negatively impacting the performance of the TV panel. On the flip side, these auxiliary devices are becoming increasingly important. Janet asked whether measurement would be completely passive. Christine said the online meter would be passive. Sara noted that the cross-platform part of the national panel is servicing more purposes than ever before and accuracy is paramount. She also pointed out that the learning s from the proposed study would be important to ultimately collecting data on tablet usage. Ceril said she would like to vote on the whole project and if that doesn't pass then vote on the first step. Richard confirmed that even the smaller sample would cost \$850,000 out of the 2016 budget. Tom Ziangas suggested that maybe Nielsen would let us shift some unspent funds from 2015 to 2016. Ceril said she would ask Sara. A discussion of various alternatives followed. Howard was eager to get the project started because of the Nielsen total audience project which integrates TV and digital. Christine said the consultant would help understand the reasons people choose not to participate with certain devices.

Ceril asked for a vote on the \$50,000 to get started with the consultant and she would follow up with Sara regarding the other funds. The council approved the \$50,000.

Local Measurement

Billy McDowell reminded the Council that the committee had previously done a project of predictive

modeling of local market ratings for which Richard was the project manager. Today we are considering a new project. In the first project we predicted ratings for ten people meter markets using no viewing data from those markets. The results were not particularly successful. Paul Donato had looked at the data and feels that by bringing in return path data from inside the market, we can improve the predictions. The proposal here is to do a second machine learning project which includes return path data and programming data. In the first project, we worked with NYU's Vasant Dhar. This time we will be working with Columbia University's Tony Jebara. Tim Dolson will be working with us as well. We will be predicting live demographic quarter hour ratings. Paul commented that Nielsen had been working with applying set-top box data and the results have been encouraging. The approach from the Columbia team is different than what Nielsen has done and appears more statistical. The question is, can the Columbia approach out-perform Nielsen's. Richard said the price will be \$335,000, \$200,000 of which will be for this year. At the end of the project, Nielsen will own the intellectual property developed. Tony Jebara will not be available after December so we will work with Tony to set up an arrangement for hand-off of the work. Ceril expressed concern about using Nielsen's viewer assignment model as a point of comparison. Paul assured Ceril that Columbia is not doing anything with viewer assignment but is using pure machine learning. Christine added that people meter data remains a source of truth. Hadassa was concerned that viewer assignment does not use programmed data and that is its Achilles heel. Richard assured her that we will be using station program information. Paul said the study will let us see what kind of controls are required for TV programming. Joanne suggested comparing the results to viewer assignment and Richard responded if that were the interest, we could do that comparison. Hadassa replied that she was not asking for a comparison to viewer assignment. Janice expressed concern about the quality of program data and audience differences across markets. Christine offered to follow-up looking at that question. Billy distinguished the work that we are doing from viewer assignment. Janet Gallent tried to compare machine learning to step-wise regression. Richard commented that machine learning does not require the same statistical assumptions as regression. Ceril inquired about the use of set-top box data and Richard replied that we will get that data from Nielsen as another data stream for the algorithm. Ceril then asked about the code reader and Richard said that was not part of this research. Richard recused himself from the vote. The motion for \$335,000 with \$200,000 in 2015 was proposed and carried.

Audio

Buzz Knight reported that our dual measurement project is on track and he acknowledged Robin Gentry and the Nielsen team. Nielsen performed a successful retest with minor revisions.

Digital

Brad Adgate said that the digital committee is finishing up its two year longitudinal ethnography. Brad thanked the CRE for the additional funding to complete the longitudinal study in five additional markets instead of two, The committee will take these findings to Oldsmar on October 7th to share with Christine's group and explore the methodological implication.

Platform Evaluation

Joe Abruzzo reported progress on the research to study engagement, emotional reaction and recall across platforms to include TV, PC, Tablet, and Smart Phones. There will be a sample of 2000 persons, age 16-54 across eight TV programs. The questionnaires have been approved and recruitment starts next week, We will have a full report in December.

Concurrent Platform Usage

Janet Gallent began by reviewing the research questions including the amount of concurrent platform usage, the demographics, the temporal patterns and the combination of platforms, group dynamics and

impact. We are doing a 3000 person quantitative study, a passive digital metering of 300 people and a qualitative deep dive of 75 people. It will be fielded in the fourth quarter.

Big Data

Stacey Schulman reported that an RFP has been issued for data enrichment providers concerning audience attributes and behaviors and how they are applied to online and offline behavior. The committee looks to have a recommendation by October.

Social Media

Beth Rockwood reported that the academic team of Mitch Lovett and Renana Pers have put together a paper to submit to the journal of Marketing Research and Marketing Science Institute discussing mobile diaries. Christine is reviewing and is making suggestions. The committee is looking into new research with Nielsen Social and Sean Casey beginning by understanding their roadmap for methodology improvement. She suggested we are now asking enough hard questions about the Nielsen social methodology. Sean was enthusiastic about working closely together for valid change. Beth mentioned possible research on ad viewability and social and also understanding communication networks in general as per Duncan Watts.

ROI

Richard reported for Dave Poltrack and said that the final piece from Sequent Partners is due by the end of the year. It has to do with the quality of local TV rating estimates.

Communications

Joanne Burns began by discussing having name tags at next year's Nielsen 360. She also reminded Council Members that if they are speaking at conferences, they should include their CRE membership in their bios. She then addressed the problem of messages from the LinkedIn group looking like CRE messages, which we are looking to resolve. The Steering Committee has approved posting RFP's on the Home page of the website in the spotlight section.

Tom Campo reported that the radio trades are reporting out the work of the Audio Committee. Mark Braff reported a meeting with Richard and the Wall Street Journal. Tom reported the number of subscribers to the newsletter (854), News Releases (706), Webinars (685) and NewsWatch (298).

Education

Jed Meyer reported no update.

New Business

Richard reported that he is teaching a new class at NYU next year on advanced audience analytics. He invited anyone on the council who might want to guest lecture or send someone to the class to get in touch with him.

Adjournment

Ceril adjourned the meeting at 3:55 PM