ARF KNOWLEDGE CENTER TRIP REPORT

MONDAY, APRIL 15

MAINSTAGE SESSIONS

Opening Remarks

Scott McDonald, Ph.D. – President & CEO, ARF

Scott McDonald, Ph.D., President and CEO of the ARF, discussed the radical changes happening in the media and advertising ecosystem, and the critical need for real empirical research and cooperation during this pivotal time in the industry.

- **Fundamental change is underfoot. There has never been such wholesale reconceptualization of the entire ecosystem**; What is an agency today and what is its role? How should advertising be bought and assessed? What is a media company? Are companies such as Amazon retailers or ad platforms?

- Amidst this change, **the ARF remains a constant - guided by evidence, objective research, and science**, rather than unsupported opinion, and ensuring that the views of all segments of our industry are heard.

- **It's a mistake to lose sight of tangible progress when struggling with perennial problems**. We need to work together and consider solutions available now and further on. For instance, we have made noteworthy progress in coverage of all types of video consumption. Progress is especially evident in ad campaign measurement, but less so in content measurement. Blind spots still remain because of the lack of cooperation from big walled-garden players like Amazon and Netflix.

- **If the big walled-garden players, for the common good, support unified third-party measurement, the whole industry would benefit**. The barriers to a much more comprehensive measurement are not so much technical as political and driven by parochial business concerns. Advertiser pressure is needed to reduce these institutional barriers.

- **There has also been progress on the ROI and attribution front:** various vendors and media sellers have demonstrated ways of integrating granular but non-random video consumption data with market outcome data. However, the field is riddled with problems of transparency.

- **Although we do not yet have consensus on the question of adopting a new currency, the MRC's recent proposal is an unambiguous sign of progress. However, there needs to be more disclosure of the empirical research behind the proposed standard to allow for more informed opinion.** Real empirical research would look at evidence of cognitive impact under different exposure durations, of ad recall and memory trace, of brand attitudes and sales. These are the impacts that will matter to marketers both in the short and long run. The marketers' interests in this should be paramount, not the parochial concerns of individual sellers.

Full speech:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/MainStage/Scott-McDonald-AUDIENCExSCIENCE-2019-Day-1-Opening-Remarks.pdf

Video: https://youtu.be/D4-EvIG8Mdw

Advertising in a Modern Media Company

Rick Welday – President, Xandr Media – AT&T's Advertising Company

Interviewer: **Jane Clarke** – CEO, Managing Director, CIMM; Board of Trustees Member, ARF

Rick Welday, President of Xandr Media – AT&T's Advertising Company, discussed the key trends in the addressable TV market and the implications for advertising.

- **Definitions matter.** Xandr defines addressability as the ability to serve targeted ads to the HH or user based on deterministic identifiers, allowing brands to define and serve their message to the best qualified audience, wherever and whenever they're watching. This will lead to reduction in ad load and more precision advertising. Just taking data and indexing advertising is NOT addressable.

- **Addressability continues to scale.** There are about 75M HHs that are addressable enabled across MVPDs like DIRECTV, Altice, Dish, Comcast, and Verizon, both live and VOD. And now, new technologies are entering the space through Smart TVs and devices like Roku. **Commercial movements will make addressable easier to buy.** Business models are being developed to enable that scale. For instance, Xandr is working with Altice and Frontier to represent their addressable inventory. NCC also announced a consortium with Comcast, Charter, and Cox to represent their addressable inventory. Moves to consolidate the fragmented market will help to grow the category.

- **Addressable capabilities are expanding across screens.** Xandr can attach mobile devices to an addressable household and deliver the ad campaign across screens.

- **Advertisers are committing with always-on-budgets.** No longer is addressable in a test phase; Xandr Media is seeing dedicated budgets year-long from hundreds of clients.

- **Financial advertiser case study**: Analysis of a traditional TV buy showed that 70% of the ads were delivered to 28% of households. This is very common problem; it is harder to get to light viewers. Xandr layered light TV viewers, capped heavy TV viewers, and targeted the same audience (A21-39 with HHI qualifier). Results: reached HH not exposed to the original national campaign.
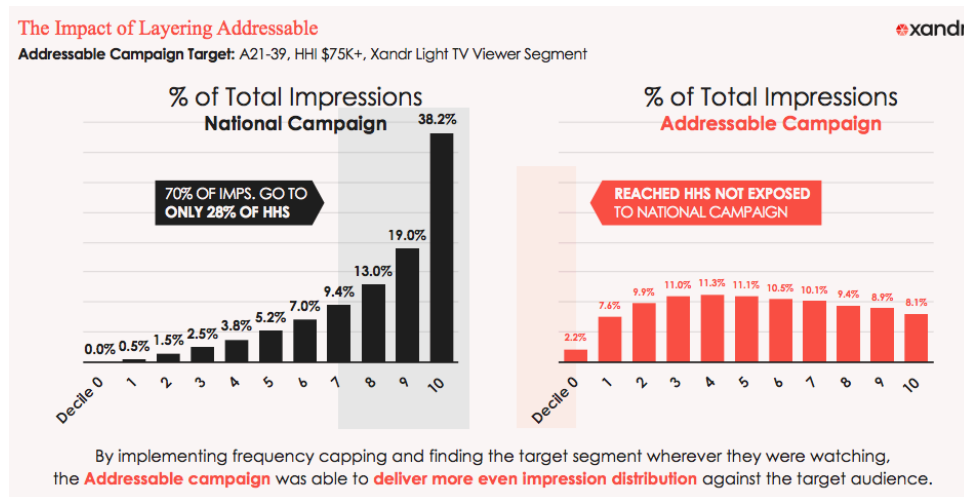
- **Next steps:** Take ad frequency across platforms; format innovations (e.g., augmented reality, 5G); DTC OTT experiences (SVOD, AVOD).

After the presentation, Rick was interviewed by Jane Clarke, CEO and Managing Director of CIMM and Board of Trustees Member at the ARF. Below are select highlights from the conversation:

Jane: **You talked a little bit about the competitive space. So why don't you talk a little bit more about kind of how you see this.**

Rick: **We have lots of frenemies in the space. I view it right now as a bunch of good companies trying to do something important.** We know that we need to make advertising matter. We know that ad load is not in a healthy sustainable position right now. Addressable is good for the category. Good to

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have multiple brands investing in the space. But I'm worried about edge companies that confuse the market about what they are doing.

Jane: **Advertisers need to feel really confident, need to have a way to deal with all the fragmentation. We do need to work to help them put the pieces all together.**

Rick: **There is such gravity that is pulling everyone to working together rather than apart.** We have a very good relationship with the NCC. Obviously we're attracting some third party inventory to what we're doing. They've gotten together to do some things - all of that has the net benefit of reducing fragmentation in this space and making it easier for buyers to buy.

Jane: **With 5G as the next new distribution technology, how long will it take for it to be ubiquitous – get to rural areas?**

Rick: Surprisingly, it will be more efficient to get 5G to rural areas. Like railroads in the past, mayors will understand the importance of supporting infrastructure to get 5G.

Jane: **We don't want to have a digital divide.**

Rick: **Absolutely, but we need to figure out how we can do that economically. I would say I think that's been one of the motivating factors for developing 5G; it becomes a solution**. One last comment on disruption for all of us: You cannot have autonomous cars with a latent broadband connection. You cannot afford a dense spot. If you think about how inherently dangerous it is, no latent broadband connection is critical.

Jane: **Since you have unique window into cross-platform measurement and data, talk a little about how you see measurement going forward.**

Rick: A lot of our clients bring their own datasets to us. They have very deep data sets. Three hundred attributes for a target audience. And so a lot of what we do is custom list match with our clients who are very sophisticated in this…**So, as we're talking about the future and how this plays out, I don't know yet. I think that's the honest answer. I think we're all going to have to figure it out together.**

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Advertising-in-a-Modern.pdf

Video: https://www.youtube.com/watch?v=5iabOp2T_ms&feature=youtu.be
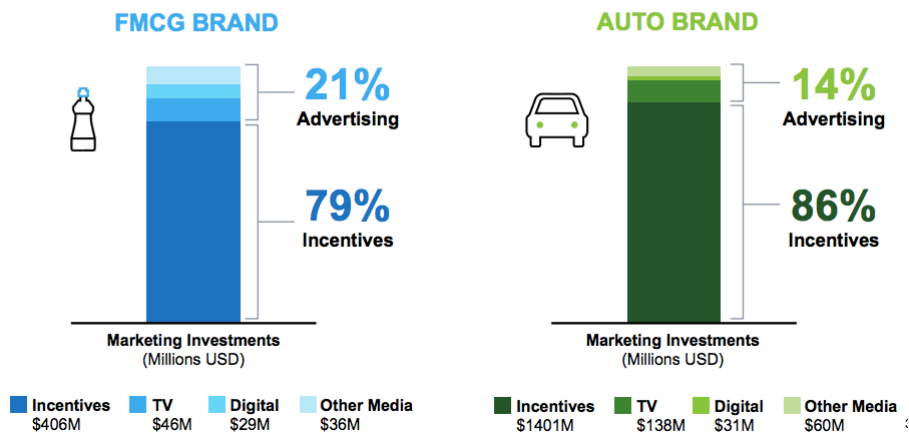

Transforming Measurement

Megan Clarken – Chief Commercial Officer, Nielsen Global Media

Interviewer: **Scott McDonald, Ph.D.** – President & CEO, ARF

Megan Clarken, Chief Commercial Officer at Nielsen Global Media, discussed the critical need for the industry to solve the current media measurement challenges to win back marketers' trust.

- **Overall consumer media usage is increasing**. In 2018, people consumed 80 hours of media a week. Audio has stayed pretty flat, which shows how powerful audio is as a medium.

- **Live TV is in the decline, but there is a rise of time-shifted TV**. Internet connected device usage is on the rise, and that's really the domain of not just SVOD but AVOD as well. There is still use of TV screens, but there is a rise in the use of smartphones and tablets to watch video.

- **However, advertising is not growing at the same rate as media use.** Nielsen conducted mixed modeling studies over the years to understand how marketers spend on media. The studies showed that across categories, marketing dollars are shifting away from advertising:

MARKETING DOLLARS GO BEYOND ADVERTISING

FMCG BRAND

21% Advertising

79% Incentives

Marketing Investments (Millions USD)

| Incentives $406M | TV $46M | Digital $29M | Other Media $36M |

AUTO BRAND

14% Advertising

86% Incentives

Marketing Investments (Millions USD)

| Incentives $1401M | TV $138M | Digital $31M | Other Media $60M |

- **The biggest reason for shifting dollars away from advertising is a problem of trust.** A marketer once told Megan that "they get a better understanding of the return on investment for putting in new carpet in their call centers than they do ads on digital and TV."

- **There's also the problem of measurement across walled gardens.** Megan points out that "there is a ton of people trying" and "TV does not escape this problem." Increase in addressable TV or audience targeting in TV creates more walled gardens. Without being able to look over these walled gardens, marketers cannot control for optimal frequency or waste. In addition, without comparability, everyone is a walled garden.

- **We need consistent, comparable, cross-platform measurement that marketers can trust.** Impressions should be based on de-duplicated reach and frequency of people, not devices. We need to get this very base metric right, and others are welcome to layer up services on top of this. True currency can only come from: alignment of comparability (the work from MRC is really honing in on this issue); ubiquitous measurement where everyone sees everything; the ecosystem to support it. We need to bring the spend back to media advertising because everyone will benefit.

Megan's presentation was followed by an interview with Scott McDonald, President & CEO of the ARF. The following are select highlights of the topics discussed.

Scott: **Consumers are increasingly multi-tasking when consuming media. But can we truly divide our attention?**

Megan: Who "wins the minute" is a controversial one at this time. Research, again, needs to prove whether or not we can actually do more than one thing at a time and consume ads in two places.

Scott: **Is the progress on covering content lagging behind?**

Megan: **It's bit harder because you have to get participation from the marketplace to put code software onto the content**. However, the progress on this has been "astronomical." Nielsen has advertising clients who set up internal systems to automatically embed the tags on all of their ads. So "coverage is pretty strong and will only get stronger."

The real place to focus is content around SVOD. As the environment becomes more competitive and as there are more demand for measurement, there will be "less of a black box" from the SVOD providers. In terms of the broadcasters and the digital players, the measurement of consumers to their content for their own usage internally is critical to compare it to others to make decisions about who they want to compete against and what sort of content they want to put up.

Scott: **How much is Nielsen's coverage of all ad exposures?**

Megan: It's not at 100% or "anywhere near that." Although for "video, it gets closer," and display comes next. Display is not a dying breed – it's still very important, and there is more coverage to do.

In addition, not all ads need to be measured by Nielsen, esp. ads in the very long-tail content. One of the digital walled gardens can do that.

Scott: **How do we ensure ad views are real?**

Megan: Digital advertising will always be fraught with the notion of fraud whether or not that there's bots and viewability issues. But fraud has moved along a lot in the last few years. Nielsen already wipes out impressions that do not look human (e.g., 20 impressions in one second). The marketplace coming together and sorting that out as one marketplace will benefit us all.

Megan: **On targeting -** There is a role for every part of the funnel to brand building. On the top of the funnel is still linear advertising. The notion that everybody sees the ad at the same time is incredibly powerful for brand building. But each part of that funnel needs comparable measurement, and you have to be very careful about privacy.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/MainStage/TransformingMeasurement.pdf

Video: https://www.youtube.com/watch?v=Qbbxh1T2c4w&feature=youtu.be

Planning in an AI World

Brad Smallwood – VP, Marketing Science, Facebook

Brad Smallwood, VP of Marketing Science at Facebook, presented how AI is being used today in planning and measuring advertising, and what this means for the role of agencies, advertisers, and platforms.

- **AI helps clients to understand how to measure and buy on platforms that are quickly evolving.** Facebook's decisions on which consumers receive which ads depend on AI and machine learning. According to eMarketer, 82.5% of all U.S. digital display ads were bought via automated channels in 2018.

- **Success requires learning.** Successful advertisers go beyond buying and focus on learning. They ask, "how can we get better and better as a result of running that campaign?" Get data into systems and improve with each campaign.

- **Automation does not preclude human decision-making.** One of the real responsibilities of marketers and one of the key challenges of using AI is that someone must tell the program how to operate, such as driving advertising value in a responsible way, while still serving ads to the most receptive audiences.

- **Challenge the status quo of how ad creative is built**. For instance, there is significant lack of gender parity in advertising representation. Many advertisers are used to defaulting to featuring a male protagonist in an ad. However, Ads 4 Equality found that there was no lift in purchase intent when women were shown ads featuring men for an alcohol brand. When the male protagonist was replaced with a female in the same creative, there was a 15-point lift among women.

- **Agencies, advertisers, and platforms are going to need to act differently, especially in terms of liquidity and signals:**

  o **Liquidity** is really about enabling the kind of programmatic systems that manage the minute by minute delivery of ads, so as not to ask media buyers to make as many decisions about exactly where ads end up showing up. This allows the buyers and planners to focus on the broader, more challenging questions, such as cross-platform. Facebook ran 45 multi-cell tests across four different direct response categories and split the budget into two different groups, one of which was only running on feed, and the other, the rest of the Facebook platform. By allowing the AI to optimize, on average, there was a 7% CPM decrease, a 6% increase in reach, and a 2% increase in incremental conversions.

- **Signals** refers to the data machine learning models use to make predictions. They are the basic pieces of information that allow us to understand what is a good impression, a good outcome, and a bad outcome. There are challenges for certain categories like FMCG, where there are not as much signals about what success look like. The challenge for the industry to solve is figuring out how to bring in more signals for brand advertisers.

Brad was then interviewed by Mainak Mazumdar, Chief Research Officer at Nielsen. Below are highlights from the conversation:

Mainak: **Facebook has terrific data. What is the strategy beyond Facebook? What signals should advertisers look for?**

Brad: Letting the systems learn is important; the challenge is having the signals. Figure out what exactly is working and double down on that. CPG often does not have the necessary signals. Learn on one or two platforms, then apply across other platforms.

Mainak: **Will Facebook allow open sourcing of its algorithms?**

Brad: The algorithm does not need to be private. The ability to activate on the algorithm is what is private. Great models and accurate data are both critical.

Mainak: **What strategies should Nielsen and other measurement companies think about?**

Brad: How can Nielsen, with their data assets, help their customers create better marketing campaigns is the question, rather than what the ROI of Facebook is. That would create value for the marketers.

Mainak: **How do you see this evolving?**

Brad: Instead of thinking of planning about a campaign, think how to control the delivery, even though AI is dealing with the details. This is a more dynamic approach. Measurement companies are the ones providing the data.

Mainak: **What do you suggest to the audience about finding signals?**

Brad: There is a lot of first-person data out there. Using proxy measures can be more challenging. Provide the model with the actual objective to make the campaign a success.

Video:

Standards, Research and Rationale

George Ivie – CEO and Executive Director, Media Rating Council

George Ivie, CEO and Executive Director of the Media Rating Council (MRC), provided an overview of the just released proposed standards for cross-platform metrics.

- **MRC's work on cross media has been many years in the making.** For the cross-media standard, more than 175 organizations and 300 people were involved in the research and development process.

- **This first phase of MRC's cross media standard focuses on video and establishes a framework to consistently measure ads and content across platforms (linear, VOD, streaming).** The mantra is consistency. Compare apples-to-apples and report consistently.

- **It starts from a base of impressions with a common granularity; seeking second by second measurement.** This is the last standard set on exposure. This is not a standard about outcomes.

- **The orientation of the standard**:
    - Establish a stronger content focus for digital and stronger ad focus for television.
    - Provide rules for granularity and comparability of underlying measurement source data.
    - Change viewability rules to be 100% pixel in view (from 50%) for cross-media comparisons; requires consideration of audio.
    - For duration measurement, there are various options. Seven confidential research studies as well as public research informed the duration weighting standard. However, the MRC acknowledges

that this is controversial and welcomes discussion and debate. The duration-weighted viewable impression (DMVI) is set to be codified by 2021.

- o Set sound practices for establishing audience characteristics for media consumption.

KEY METRICS

TO BE IMMEDIATELY AVAILABLE
- Duration of impressions
  - Actual, average, quartile
- Completions
- Reach and Frequency
- GRPs
- Certain legacy metrics preserved in certain circumstances

TO BE ADDED IN 2021
- Duration-weighted viewable impressions (DWVI)
  - Sets a base of viewable impression counts with duration, while assigning proper weight to the impressions, reflecting a larger weight for longer exposure
  - Uses 30 seconds as a denominator to normalize, which will be evaluated as this rolls out
  - Allows for GRPs for creatives of different lengths to be more comparable
  - Preserves accurate value and ROI decisions regardless of length of creative and platform

- **Key work areas for cross-media standards:**
  - o Align exposure measurements across platforms (standardizing of metrics).
  - o Deduplication concepts and processes. This is the most technical area of the standard. Advertisers want to manage their frequency but walled gardens pose a big challenge.
  - o Setting guidance for consistent frequency measurement (necessary to enable frequency management).
  - o Integration practices, quality control and disclosure requirements for audience information.
  - o Preserving relationships and fair foundation for ROI and other outcome measurement.

- **This proposal is currently open to public comment:** The industry is encouraged to review, send comments, and work with the MRC on cross media standards.

After the presentation, George had a short Q&A with Paul Donato, Chief Research Officer at the ARF. The following are key highlights of the topics discussed.

Paul: **Is the MRC willing to work with those in the industry who are thinking about projects that would support empirically how duration should be weighted, such as along a curve rather than linearly? If so, what is the deadline?**

George: The MRC is open to research and January 2021 is the deadline to set that duration weighting standard. The deadline can be opened if there is compelling research, but want to encourage people to try to help before the deadline in order to move the marketplace forward. Duration weighting may not be the right answer but we need to think about equivalized units.

Paul: **Could you talk a little about the :30s base?**

George: The MRC studied a number of cases and found that using duration of the ad as the base is biased towards shorter ads. The MRC went to the marketplace and heard from numerous agencies in particular about using :30s as the base since they have systems already operationalized using :30s as the base. It would be the easiest to implement on right now. If people start migrating wholesale to other ad formats, the MRC will think about changing it at that point.

Paul: **Is this planning and currency?**

George: It's an element of both. The MRC can't control currency but likes to set a standard for how people should trade and encourage adoption. That's the main focus. Planning involves a lot of other things – it's an art nowadays – pulling together a lot of other information and data. It's where the MRC is going but we are currently focused on currency.

Paul: **You had said that, at least at the moment, people ought to use the best measure as currency, which would imply continuing to use C3 and television, which would imply impressions and digital. Is this a kind of reversal of position?**

George: It might be a reversal because at the end of the day, people look to the MRC to help them figure out how to do business, what they can trust, and we are having severe problems with different silos. Advertisers ask over and over for help solving just those two questions so the MRC is focusing on basic impression counting currency first. Then, refining outcome measurement.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Standards-Research-and-Rationale.pdf

Video: https://www.youtube.com/watch?v=IOD8nDHe_4Q&feature=youtu.be

Going Beyond :30s, :15s or :06s:

Vas Bakopoulos – Head of Research & Insights, Mobile Marketing Association

Vas Bakopoulos, Head of Research & Insights at Mobile Marketing Association, shared findings from a new study, which was the first to pass the ARF's certification program, on how much time an ad needs to stay on the screen to trigger attention and cognition.

- **The MMA's new research focused on the first three seconds of ads to test exposure time and recognition in a mobile environment.** Attention was measured as percentage of the ad seen. Cognitive processing was measured by Cognitive Load (Are consumers processing the information given? Are they experiencing information overload and stress?), and Motivation/Emotional Response (FAI) (Do consumers display interest and desire? Are they motivated to approach or avoid?).

- **Cognition is fast.** Two-thirds of mobile ads are seen and cognitively recognized at 0.4 seconds.

- **Time is relative.** Consumers need about three seconds to see and cognitively recognize the same share of ads in a desktop environment. Ads in a mobile feed environment get attention faster and trigger stronger cognition compared to desktop. About 60% of desktop ad exposures are seen at two to three seconds.

- **Cognitive process is accelerated for known brands.** There is no difference in terms of *when* ads get attention between well-known and lesser known brands, but well-known brands convert attention to a stronger emotional and cognitive response.

- **Motion drives emotion**. Video ads get similar levels of attention compared to static ads, but video ads create stronger emotional response earlier than static ads.

- **Weak ads work fast and fail faster.** Weak ads are processed faster and create negative responses in less than a second. Low performing ads (ads in the lower quartile in terms of brand recall based on brand lift study) create negative motivation early on. There was no difference in terms of when ads get attention between high and low performance ads. Low performing ads did not generate positive emotions.

- **Brands need to develop a clear one second strategy to leverage this critical point of consumer cognition and win customers.** Focus more on the creative: Do you have a one-second strategy? Focus more on the media: Are you overpaying for exposure time? Extending exposure time does not repair weak advertising in the first second of an ad. The MMA is not advocating one-second ads; however, the one-second strategy is crucial as ads that fail, fail on the first second. Phase 2 of the research will be focused on understanding why this is happening.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Going-Beyond-30s.pdf

Video: https://www.youtube.com/watch?v=I0mrhUK4IyY&feature=youtu.be

Advance Towards Digital Audience Quality

Robin Opie – Group VP, Data Science, Oracle
Interviewer: **Paul Donato** – Chief Research Officer, ARF

Robin Opie, Group VP of Data Science at Oracle, discussed the critical need for audience quality, especially when billions of dollars are spent annually on digital audiences with little transparency and accountability.

- **Reaching the right audience matters.** For instance, new car ads are most relevant for the 9% of U.S. households who will buy or lease a car in the next 12 months. Focusing international travel ads on the 1/3 of Americans who have passports results in better audience quality and higher ad performance.

- **Audience quality matters.** For example, when testing "in-market new car" audiences for real-world performance, there was a 5x difference in quality between the "best and "worst" audiences.

- **Poor audience quality can happen due to**: bad actors, weak ID graph, over-extension, source data, bad models. It is unlikely that there are people who are actively duping clients into buying bad audiences, but more likely that people are too focused on generating revenue really fast and lose sight of data quality.

- **Labels as a means to determine quality can be valuable, but they can also be misleading or wrong.** Without validation and processes for data integrity in place, we will start buying audiences that only "seem" good. There is a need to test to see if your audience model works. The audience quality must be quantified.

- **Best practices for self-audit and data integrity include:** audience health team, model diagnostics, ecosystem diagnostics, real-world validation, ID graph accuracy.

- **Characteristics of external audience quality validation:** common currency across data providers, objective and independent, measures "ad-serving reality" (i.e., post-fulfillment).

- **Challenges with external validation:** false positives (e.g., 10% of the audience in a survey visited a fictional ice cream shop in the past 6 months); inconsistency (e.g., different results in two audience surveys relating to lemonade purchases in the past 90 days); question fatigue (e.g., when asked "Did you buy a new car in the past 12 months?" The same survey respondents provided different answers to this question at the start and end of the survey.

- **There is a need to make continued investments in external validation of digital audience quality in order to increase: accuracy, efficiency, and consistency.**

In the brief Q&A that followed the presentation, Paul Donato, Chief Research Officer at the ARF, noted that the variances in audience quality that Oracle found was in line with the findings by the ARF. Additional discussions included:

- **Where is it easier or harder to validate – such as intent or attitude?** Robin answered that more research is required as he has not been able to establish the link between true intent and actual behavior. For instance, even for people who legitimately intend to go buy that luxury automobile – something can change in their life or they decide to wait for another month or so. Or they just bought a car two weeks ago, so you actually have the behavior you predicted, but they are no longer a great audience to target.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Advance-Towards-Digital-Audience.pdf

Video: https://www.youtube.com/watch?v=LFGfSWHN47M&feature=youtu.be

Grow Your Brand with Better Audience Targeting

Nishat Mehta – President, Media, IRI
Interviewer: **Barb Murrer** – Senior Director, Global Marketplace Insights, Levi Strauss & Co.; Chair, Board of Directors, ARF

Barb Murrer, Senior Director of Global Marketplace Insights at Levi Strauss & Co., and Chair of the Board of Directors at the ARF, interviewed Nisha Mehta, President of Media at IRI, about the current state of audience targeting, including challenges and best practices.

- **Data quality is challenging. What should marketers think about?** Focus on "quality scale": what is the highest quality component of the audience, and what is the scale of that? For example, purchase behavior (e.g., loyalty card data) is a high quality component. Recency is also important. Additionally, future proofing is vital since regulations are coming: make sure that your data is being collected and can pass the "mom" test. Do not scare the consumer over the use of their personal data.

- **What does good audience targeting look like?** Audience targeting for CPG products is different from targeting for jeans purchasers since CPG products are purchased more frequently. Audience targeting will differ based on the category or the industry.

- **Can you talk about situations where things work well vs. challenging?** Optimize to ROI. That number should be aligned with your goals. ROI must reflect both short and long term goals. There is a need for a single metric to combine both short and long term numbers. Acquiring a new customer has long-term value, but not necessarily in the short term.

- **How do you account for influencer marketing?** It is still challenging. Focusing on micro-influencers right now, rather than celebrity influencers. It is easier to track micro-influencers.

- **Micro targeting - What does my brand mean if I customize my brand to each individual?** Chances are that you won't as there is a limited number of ways a product can be used. Therefore, every targeted messaging will not be relevant to the entire population. It is challenging to convince marketers that they need to target their messages more. The creative needs to be differentiated for each target – not that they get or don't get the message. But be careful to avoid over-targeting: one-to-one micro-targeting can feel like manipulation, which can trigger backlash.

- **What is the sweet spot?** Three messages may be too little; 2,000 messages may be too much. Technology puts a limit on us. As long as a human can no longer view all of the creative variations, we are more likely to make errors. Humans should validate every piece of creative.

- **What are your reactions to the privacy regulations?** The challenges of these regulations is the unknown. The California Consumer Privacy Act (CCPA) passed last year but no one knows yet what the implementation looks like. For instance, if the consumer does not choose to share data, the brand cannot discriminate against them. How will this impact the loyalty card system? It's unlikely that the traceable tender from non-loyalty systems will survive the regulations. Law from six or more states are likely to pass. It's been amazing to see the backlash. What is the truth that we do know? The consumer will always get what they want – even if it takes a long-winding road (e.g., do-not-track, adblockers). We know what the consumer wants – they want to know that when their data was collected, it provided value and was respectful to the consumer.

Video: https://youtu.be/_EV9-Fp5t-E

Paving the Way for News Organizations

Lisa Ryan Howard - SVP, Advertising & General Manager, Media, The New York Times

Lisa Ryan Howard, SVP of Advertising and General Manager, Media at *The New York Times*, shared how the venerable newspaper has continued to grow and find new audiences during a disruptive time in the publishing industry.

- ***The New York Times* is playing a leading role in the media conversation.** For instance, The Privacy Project is reporting on what privacy means to people. This will consist of a continuing forum on data privacy and the causes of the privacy concerns. Both industry leaders and reader voices will be included. Consumer are demanding to know more about how their data are collected and used.

- **How is *The New York Times* preparing for the future?** The newsroom sets the agenda on a daily basis. In-depth journalism is complex and expensive. However, the model of reader first is working. The stock prices reflect the fact that consumers will pay for a premium destination. Digital revenues have more than made up for print revenue declines. This is not true of other media companies. Advertisers are also responding to this premium environment in both the print and digital versions. New franchises, events and products that readers want will be offered. Partnership opportunities are being expanded for advertisers.

- **The new initiatives include:** Audio ("The Daily" podcast, smart speakers); TV ("The Weekly" is being launched this summer); Experiential - bringing people together in real life (e.g., travel shows, food festivals).

- **NYT's "reader scope" has been developed to enable a better understanding of the readers and their content preferences.** It analyzes reader topics and sees what is important them. As a result, readers will be provided with in-depth content in many dimensions based on their areas of interest. Data scientists can predict emotions based on predictive algorithms of each article.

- **What does this mean for marketers?** Based on the Reader scope analysis, a targeted reader database can be offered to marketers. Advertisers can run ads against this data, which is privacy protected. For example, travel advertisers can select "inspired" emotions. Click through rates are 6x above IAB standard benchmarks.

- **The story and the ads in that story can be connected.** "Campaignscope" is the NYT ad tool to make this contextual data available to advertisers. NYT is able to report how that ad performs vs. industry competitors and benchmarks, as well as the behavior of readers. Campaignscope provides a contextual dimension to audience readership/viewership data.

- **Key takeaways:** readers and advertisers want a premium environment; readers, including digital readers, are willing to pay for quality journalism; NYT is considerate of the privacy of its readers despite deep targeting; the breadth and scale of the paper's offering will drive interactions between consumers and brands.

Video:

Closing Remarks

Scott McDonald, Ph.D. – President & CEO, ARF

Scott announced the *Journal of Advertising Research* awards for 2018:

- **Best Academic Reviewer:** Kate Pounders, University of Texas at Austin

- **Best Practitioner Reviewer:** Mike Hess, Hess Consulting

- **Best Academic Paper:** [How Do Heuristics Influence Creative Decisions at Advertising Agencies? Factors that Affect Managerial Decision Making When Choosing Ideas to Show the Client](June 2018) by Douglas C. West, King's College London; George Christodoulides, Birkbeck, University of London; Jennifer Bonhomme, Huge.

- **Best Practitioner Paper:** [How Synergy Effects of Paid and Digital Owned Media Influence Brand Sales – Considerations for Marketers When Balancing Media Spend](March 2018) by Rob Jayson, US International Media (USIM); Martin P. Block, Northwestern University; Yingying Chen, Michigan State University.

- **Best paper finalists:**

  o [Attribution Modeling in Digital Advertising: An Empirical Investigation of the Impact of Digital Sales Channels](December 2018) by Tahir M. Nisar, Associate Professor, Southampton Business School, University of Southampton, UK; Man Yeung, Senior Associate, Digital Lab, London and research fellow at University of Southampton.

  o [Single versus Multiple Measurement of Attitudes: A Meta-Analysis of Advertising Studies Validates the Single-Item Measure Approach](June, 2018) by Lawrence Ang, Associate Professor in

Business, Department of Marketing, Macquarie University; Martin Eisend, Professor of Marketing, European University Viadrina.

Video: https://www.youtube.com/watch?v=Ov95GaiEY_c&feature=youtu.be

CONCURRENT SESSIONS – WINNING PAPERS & SOLUTIONS

Track1: What's in a Name: Identity, Targeting & Validation

The Programmatic Underbelly That No One is Talking About

Charles Buchwalter – President, Buchwalter Media Consulting
Sherman Langford – Sr. Director Data Science, Oracle Data Cloud
Ted McConnell – SVP, Business Development, Lucid, LLC

Charles Buchwalter, President of Buchwalter Media Consulting, Sherman Langford, Sr. Director of Data Science at Oracle Data Cloud, and Ted McConnell, SVP of Business Development at Lucid, LLC, discussed audience quality as a challenge in the programmatic process. Among their key conclusions:

- **Getting the audience quality accurate is a critical challenge for the industry**, including a standard way of calibrating that accuracy.

- **There is a significant challenge of data loss and error in the supply chain**.

- **Data labeling is a first step, not the final step.**

Charles: One of the outgrowths of programmatic is the ability to target audiences, moving from very, very broad demos to a very specific behavioral segment. The process is "not fully baked yet but it's off and running." This is a challenge that not enough people in the industry are talking about. We now take it for granted that you can buy and sell audiences, but **the question is how good are those audiences**?

Charles presented a chart dealing with the significant challenge of data loss and error in the supply chain. **Sources of error** (based on a chart from Scott McKinley, former CEO IDify):

- Targeting source data.

- Onboarding.

- DMP modeling and aggregation.

- DMP lookalike modeling.

- DSP lookalike modeling.

- Cross device graphs.

If you look across the entire ecosystem, there are big challenges at each of the steps, and if you multiply the errors along the supply chain, the audiences that you are buying may not really be the audiences you think you are buying. **This will end up being a bigger challenge to the industry than viewability was.**

Ted: What do you want to know specifically about a segment or an audience that was targeted using data? You want to know if what was on the package, is in fact the people who were in that audience.

The only way to know what people think is to ask those people. Everything else is a surrogate. Behaviors are mostly a bad predictor of attitudes.

In order to analyze the audience challenges, **a measurement called "Attribute Density"** was presented. This is the concentration of people in the audience who claim to have the desired characteristic. For control, the density in the defined audience is compared to a random audience. As a result of this approach, outcomes are improved, including media performing better than random.

A standard way of calibrating the accuracy of a segment or a campaign audience is critical.

Sherman: Audience quality translates to relevance, which translates to huge massive value for marketers. Lower quality means less effective relevance and less effective campaigns.

Accurate data is the hardest working "Media $". CPM divided by percentage of buyers reached represents the cost per buyer. **The greater the amount of relevant information in the model, the lower the cost per buyer.**

Audience quality implies relevance. **Relevance is what really matters.** For example, only 20% of households are relevant to a diaper brand because the relevant target is households currently pregnant or that have purchased diapers in the last 12 months. In the case of pet products, only 55% of the U.S. households are relevant since this 55% represents dog/cat owning households.

It's really important for companies that are selling data to self-audit and to self-police. Spend the time and energy to deploy the best data science and data to look internally at the audiences as they are built, as they go through ID translations and as they land out in the platforms where they are sold, to make sure that they are still what we are claiming to marketers that they are. External evaluation of the vendor solutions is also vital to developing an independent audience quality perspective.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/The-Programmatic-Underbelly.pdf

Accuracy in Multicultural Audience Segments

Alice Sylvester – Partner, Sequent Partners
Jim Spaeth – Partner, Sequent Partners

Jim Spaeth, Partner at Sequent Partners, discussed how assigning multi-cultural identity is extremely challenging. AIMM (the Alliance for Inclusive and Multicultural Marketing) has developed an action plan to address this challenge. Closing the accuracy and affordability gaps between multicultural data and general market data is critical. There is a need for quality measurements and proven best practices. Among the challenges:

- **Clients don't question how multicultural identity is captured or attributed.**

- **Providers don't offer proof of accuracy or coverage claims**. Need independently vetted proof of accuracy and coverage.

- **Many approaches and inter-dependencies**: Names of subcontractors are confidential. Clients need to know the quality of the source data.

- **Dialogue about sources, transparency, tradeoffs and risks must be expanded.**

The presenters asked the audience to imagine identifying the exact Multicultural (MC) consumer segments that will drive their brand's growth for the next decade. However, when you launch, data sellers only "cover", that is, "classify" 1/4 of your potential target audience. Three-quarters of your target audience is not identifiable=missing in data sellers' databases. Half of that available audience is reached but inaccurately identified. Thus, only ½ of your available audience is accurately reached. This scenario isn't hypothetical; it happens every day. In fact, this example is not uncommon for marketers targeting English Dominant Hispanics and Hispanics that speak Spanish and English equally.

More than 80 member companies make up AIMM, and these members are working to elevate multicultural marketing effectiveness. AIMM is aligned with ANA CMO Master's agenda. **One of AIMM's goals is to close the quality gaps between multicultural and "general" data that pose an obstacle to effective growth**. This goal contributes to fostering business growth.

AIMM members' data audit: **accurate identity drives all multicultural digital applications. There is a massive gap between AIMM members' perceptions of the importance of identity data and their perceptions of its quality and affordability.** Coverage and accuracy of data varies for African-Americans, Asian-American and Hispanics.

AIMM conduct an identity provider RFIs and interviews.

They found that identity is assigned in a variety of ways:

- Surname, first name, or geography.
- Self-reported language preference and acculturation levels.
- U.S. Census benchmarks.
- Site visits and online behavior
- Data is refreshed continually (monthly or every 2 months).

Nielsen's provider validation studies from 2011-2018 compared multi-cultural identity assignments among approximately 10+ providers to Nielsen's truth set with respect to coverage and accuracy. They found that:

- 44% of Asian-Americans were covered, compared to 67% of African-Americans, 73f% of Hispanics, and 89% of non-Hispanic whites.
- One third of African-Americans are misclassified, compared to 29% of Asian- Americans, and 11% of white non-Hispanics.
- While 26% of Hispanics overall are misclassified, 64% of Spanish-Hispanics are misclassified.

AIMM's Action Plan:

- Nielsen will update MC identity benchmarking study.
- MRC will begin auditing and certifying data providers' validation studies.
- AIMM will continue to educate the marketplace and drive higher quality measurement and greater affordability.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Accuracy-in-Multicultural-Audience-v2.pdf

Which Online Audience – Targeting Data Drives Greatest Impact? (Put Your Money Where Your Consumer Is: How Audience-Based Targeting Drives Higher ROI)

Dena Feiger - Director Marketing Effectiveness, Nielsen

Dana Feiger, Director Marketing Effectiveness, Nielsen, analyzed how the type of targeting data used to reach online consumers impacts ROI. Recommended action steps:

- See how your digital marketing stacks up.
- Prioritize digital to improve performance.
- Breakdown data silos for greater insight and performance.
- Invest in action-based data for higher ROI.
- Mine data to find new audiences.
- Choose the best attribution technique for your objectives.

The CPG industry faces a larger challenge than any other industry in knowing their customers. CPG advertisers are expected to spend almost $11 billion dollars on digital advertising. Despite this digital investment, they don't know the impact that their digital ads are having on in-store brick and mortar sales. The actual sale in the store means that CPG manufacturers are not able to directly access the consumer and see the impact that their ads are really having. Bringing sales data and exposure data together to measure digital accuracy is vital. It is also critical to understand the campaign goal when determining the main KPI.

Nielsen conducted a meta-analysis of MTA studies across 31 CPG brands and 79 sub-brands covering over 750 online campaigns. These studies brought together **Digital exposure data with in-store brick and mortar sales data to allocate incremental volume to those digital touchpoints that drive the actual sale.**

Analysis of what works:

- Audience data type is a major driver of ROI.

- Purchase-based data performs best; demographic targeting drives the lowest ROI.
- Broad-based targeting achieves lower ROI.
- Centralized data outperforms silos.

Findings:

- Purchase-based targeting delivers 3x ROI for CPG.
- Use of advertiser led data management hubs achieves 3-4x ROI.
- Also above the breakeven are look-a-like models, retargeting and first-party targeting.
- A case study revealed that changing targeting strategy can achieve better results by optimizing the return on investment.
- Behavioral target audiences tend to less expensive but achieve lower "Profit ROI" than purchase-based target audiences.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Which-Online-Audience-Targeting-Data.pdf

To Have and Have Not

David Kingsbury – Consultant, IRI
Travis Barnes – Product Marketing Lead, Identity, LiveRamp

David Kingsbury, Consultant at IRI, and Travis Barnes, Product Marketing Lead, Identity at LiveRamp, discussed "Haves" and "Have Nots" in building audience targeting strategies.

The **haves** are people that IRI/LiveRamp have data on deterministically online that we can measure and target. The **have nots** are people for whom there is transactional data, but who are missing in the digital environment or are not online at all. Have not populations are digitally invisible.

Digital partners serve the same batch of cookies:

- Liveramp and IRI's joint research shows that among digital cookie pools from eight partners, the unique reach partner varies from a max of 4% to just 0.05%.

- Therefore, additional HHs cannot be reached simply by adding additional partners.

Despite the overlap, **only 60% of HHs have active cookies:**

- Of the measurable and targetable digital universe, we are able to account for over 58 million HHs.

- These are households that actively shop at retailers with which IRI partners (for loyalty card data) and who have active cookies.

- There are 40MM households with loyalty cards but no active cookie data.

- Of the total of 127MM US households, 120MM are in the Liveramp/IRI/Experian universe.

- In 2018, 11% of HHS did not have internet (Pew Research).

Digital invisibles are more likely to skew low income, no kids, and under 34 years old.
Through a partnership with Experian, IRI is able to know and understand demographic information, but no PII, about the HHs with loyalty cards. These HHs are more likely to have online activities that are not measurable or do not/no longer have internet access.

But in addition to the population who do not have internet access, **why is 29% of online behavior invisible?**

- Larger percentage of internet time on devices without cookie footprints.

- Smart device ownership is increasing. Due to smart TVs, smart speakers, IoT, a large and growing younger cohort is moving into channels that cannot be followed as closely. **This is a digital invisible population.**

To reach both groups (those not online and those with light cookie footprints), use an omnichannel approach. In 2018, 89% of U.S. adults had internet access and 96% had and watched TV.

- Under 34: mobile app inventory, audio, VR, new formats.
- Over 55: print, phone, direct mail.
- Both populations: TV, OOH

Identity resolution across online and offline data plays a key role in enabling omnichannel marketing.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/To-Have-and-Have-Not.pdf

Deterministically Mapping Path to Purchase
Jennifer Pelino – SVP, Omni Channel Media, IRI

Jennifer Pelino, SVP of Omni Channel Media at IRI, discussed **how using scaled deterministic purchase data allows for pinpoint accuracy in mapping a consumer's digital journey**. An audience architecture identifies who current and potential consumers truly are so they can be reached the right way, anywhere at any time. It is a proactive and iterative process involving identifying an audience, building an informative profile, surrounding the target with relevant messaging, monitoring response and advocacy. Among the points presented:

- Identifying the right consumers can be challenging and costly.

- Purchase data identifies high quality targets efficiently as it is a primary predictor of future purchase intent.

- This efficiency has been proven out in measurement studies time and again. **Purchase-based targeting (household-level transaction data collected through panels or loyalty cards) can provide 3-4x lift compared to other tactics**, such ad demographic, contextual and behavioral targeting.

- Category buyers is a good first step; qualifying consumers may have very different behavioral drivers.

- Purchase data, including frequency and time of day and the other items bought at the same time as particular brand, can tell us a tremendous amount about a consumer's tendencies and motivations. Past behavior is the best predictor of future behavior.

- However, shopping at the store is only one facet of a consumer's life that can help define the right message. Need to understand the audience more holistically, including their lifestyles and behaviors, in addition to their purchasing behavior.

- Building a robust consumer profile often requires a village of data providers. A range of different data from different organizations provides that extra layer of information for developing valuable insights.

- With good data, a highly relevant message can be delivered to each consumer, mapping their path to purchase.

- Matching of data to provide indexing enables the collective target or sub-segment to be reached with more relevant messaging. This approach has worked well for several of IRI's clients.

Pelino then presented a case study for a new product for expectant mothers whom their client was attempting to reach at "the baby shower moment." For this campaign, the client leveraged data from multiple partners. Through these partners, they identified people who are buying "stretchwear" and other related products. They found that:

- The #1 non-baby product they bought was frozen waffles.
- Place IQ revealed that they shopped at Home Depot and Best Buy.
- Their #1 influencer was George Takei.

This experience suggested that . . .

- When looking at a new campaign, this deep dive approach should be used to design the right creative for the right moment. Better messaging to the target audience both contextually and creatively is achieved.

- There is clear power in primary data, making it easier to map the digital journey and measure its effectiveness.

Among the takeaways:

- Leverage purchase data to define and build the "right target".
- Delivering the "right message" may require you to go a level deeper.
- Purchase data provides a strong initial layer for building consumer profiles.
- Other data sources can help feed an even more robust profile.
- Measure to ensure that your pre-campaign optimization is paying off.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Deterministically-Mapping-Path-to-Purchase.pdf

How a Truth Set Can Power Data Accuracy Verification

Maria Domoslawska – VP of Insights, Ericsson Emodo
Jake Moskowitz – Head, Emodo Institute

Maria Domoslawska, VP of Insights at Ericsson Emodo, and Jake Moskowitz, Head of the Emodo Institute, presented benchmarks and best practices relating to data quality.

The industry needs to take the learnings from focusing on media quality and do the same things for the data quality side because the data quality problem is actually larger than the media quality problem. Other organizations are working together and have made a great start. It is important to measure the data quality every single time, as we do on the media quality side. In order to see improvement on this issue, the industry needs to start paying attention and playing an active role. This complex problem requires a solution that can decode the problem, and then simplify it and provide a set of metrics that can be used with confidence to make business decisions.

The speakers discussed a truth set for location data based on carrier data and stressed the need to question assumptions about accuracy of third-party data. One big assumption that occurs in the location space is that SDK data is good and exchange data is bad, but that's not true. In one case study, they found accuracy scores from 3rd party SDK data ranging from 60% to 72%.

Marketers should expect objective visibility into the density or accuracy of each one of the data products they're buying. Among the conclusions:

- Carve out data quality as separate and equal to media quality, with Nielsen DAR as an example.
- Seek proof of data quality, not just indicators.
- Recognize the key role Truth Sets should play in enabling scalable objective data quality scoring.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/How-a-Truth-Set-v2.pdf

Calibrating Bias in Online Samples for High Quality Surveys at Scale

Steven Millman – Chief Scientist, MRI-Simmons

Millman thanked his co-author, **Hu Yang**, Lead Data Scientist, MRI-Simmons (who was not present).

Steven Millman, Chief Scientist at MRI-Simmons, discussed debiasing online survey panel data.

Online survey panel data has become a dominant source for consumer insights. **This research sought to identify the ways in which online panelists are different, and how those differences can be corrected**.

A key finding of this research: non-probability online panelists are different from probability samples in significant ways that cannot be corrected with simple demographic weighting. Online panelists are not representative since these panelists are not generally drawn randomly from the population of interest and they are individuals that have made a conscious decision to monetize their use of the Internet.

Millman shared insights from an analysis, which compared results for The National Consumer Study (NCS), an annual high-quality random probability sample collected via mail with an online version of the NCS (containing approximately 60% of the NCS questions). The research identified significant and substantive deviations between properly weighted probability and online panel samples.

Among the findings:

- The bias in non-probability online panels were analyzed and the results of weighting strategies were presented. Sample bias tends to be narrow, not broad. The most strongly biased variables fell into a small set of question categories: online shopping behavior, communications, information seeking, video streaming, use of technology. Other points raised: psychographics where online sample is > 10 points higher and selected brand use with over +/-10 point differences compared to probability.

- Non-probability online panelists can be used to provide a reasonably representative snapshot of populations of interest, but are wildly inaccurate for an important subset of topics.

- Attitudes and use of the internet and technology are severely biased in ways that cannot be corrected with demographic weights.

- In order to use online survey panelists to investigate these topics, the use of a calibration set derived from either a properly representative random sample of respondents or from census-level data would be required.

- Rule of thumb: Try to avoid asking online survey panelists about online activities and beliefs.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Calibrating-Bias-in-Online-Samples-v2.pdf

A Segments Journey

Pete Doe – CRO, clypd
Bryan Donovan – VP, Data Strategy & Acquisition, Acxiom
Joshua Pisano – SVP, Data Innovation & Strategy, MRI-Simmons

Pete Doe, CRO of clypd, Bryan Donovan, VP, Data Strategy & Acquisition at Acxiom, and Joshua Pisano, SVP of Data Innovation & Strategy at MRI-Simmons, addressed their approaching for achieving consistency of consumer audience segments across platforms.

The marketing ecosystem is very fragmented and provides an extremely limited capability of providing a comprehensive view of a consumer**. Audience consistency is a challenge because offline and digital data ecosystems represent identities and attributes differently. Additionally, reconciling and assessing these differences is complicated by the volume and velocity of digital data and a new variety of data sources.**

The question ends up being how do we validate or evaluate consumer segments once they've been integrated into other environments? Consistency in audience targeting is crucial.

- Five distinct audience segments from the MRI Survey of the American Consumer were followed through different ecosystems. Two specific pathways were followed.

  - **One pathway involved the linear TV fusion with MRI and Nielsen TV ratings data.** Very close segment size and target percentage penetration were found. Assessing profiles revealed MRI and Fusion data matched very closely, with profile skew correlations giving a systematic validation metric for the Fusion. Target sizes align very well, and profiles are very well matched.

  - **The second pathway involved the digital ecosystem where modeling was used to go from the representative sample to Acxiom's national database file**. Ultimately, each segment was distributed into the digital ecosystem for further use and activation. The segment sizes were close enough for most purposes, and there was close correspondence in terms of percentage distributions. Steps included marrying the offline assets, asking survey questions of a small subset of the Acxiom database, and modeling. Distribution challenges included identity fuzziness, loss of scale, drop-off and impact.

- Clients are asking for a consistent cross-platform target definition that can be applied both in linear and in digital.

The speakers felt that they have a defensible set of metrics and a fairly simple way to evaluate the consistency of segments, but that more work can be done in the future.

Presentation not available.

TRACK2: WHO'S REALLY WATCHING: OTT & ADVANCED TV

Counting the Right Viewers in OTT Measurement

Oana Dan – Director, Data Science, Nielsen

Oana Dan, Director of Data Science at Nielsen, discussed how CTV fits into the audience measurement landscape.

- **Connected TV measurement is not like measuring on the other platforms**. CTV audiences are different from other platforms, and should be measured at the person-level, which requires census and panel data. It's important to get the people right. Dynamic ad targeting on CTV requires new efficiency metrics.

- **How CTV, Digital, and TV Audiences differ:** Overall, viewers of CTV content are more similar to digital than to TV. If available in home, CTV is preferred over TV for similar content. CTV and digital audiences tend to be younger than TV audiences. When comparing overlapping networks, viewers of CTV are as different from TV as they are from digital.

- **How do you get to person-level data?** Find the correct household (tag, match households, calibrate demos). Find the correct viewers (assign viewer demo, report).

- **How to evaluate and optimize performance with co-viewing?** Evaluate performance using CTV-specific metrics to improve targeting by leveraging impressions with most co-viewing within target demographic. Shift delivery towards placements with high Target Demo Efficiency Rate to improve overall on Target %.

Presentation not available.

More Than Impressions: OTT in the TV Daypart Model

Dan Robbins – Director, Head of Ad & Programming Research, Roku
Tristan Webster - VP, Client Solutions, TVision

Dan Robbins, Director of Head of Ad & Programming Research at Roku, and Tristan Webster, VP of Client Solutions at TVision, presented their findings on how daypart viewing of OTT on-demand content (where the viewer has control over the content) is similar (or different) from live Linear TV.

- **Tuning alone does not necessarily equal engagement.** Highly rated programs have high engagement; however, low rated programs can still have high engagement. Level of engagement with the program relates to level of engagement with the commercials.

- **Daypart viewing of Linear TV has ingrained habits that translate to OTT.** Co-viewing occurs in predictable ways, occurring most frequently in evenings and on weekends. Late night viewing has the most captive audience, the audience is much less likely to get up and leave the room as compared to other dayparts. Attention is highest when viewing in Prime, where premium content typically aired (*what the viewer chooses is premium in their eyes*).

- **Yet, when it comes to commercial attention, OTT breaks through established Linear TV norms.** There is 48% more attention per second of commercials in OTT. Compared to Linear Prime TV, there is 36% more attention per second of commercials in OTT. The OTT experience differs in that it provides intentional viewing, non-skippable commercials in most cases, and captive environment.

- **Across the day, attention to OTT content is less variable and exceeds linear norms.**

- **Differences remain consistent across age breaks.** Ages 35-54 pay 41% more attention to commercials in OTT content than regular Linear programming.

- **Plot-driven content offers greatest lift in viewer engagement.** Viewers are more interested in plot points in dramatic stories, this interest carries over to commercials. Viewers pay 73% more attention to commercials during Drama programs on OTT than watching linear TV.

- **OTT is not a replacement for Linear TV, but it needs to be part of the mix.**

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/More-Than-Impressions.pdf

Under the Hood of OTT Measurement

Blaine Bush – Junior Research Engineer, MAGNA Global
Dan Robbins – Director, Head of Ad & Programming Research, Roku

Blaine Bush, Junior Research Engineer at MAGNA Global and Dan Robbins, Director and Head of Ad & Programming Research at Roku, discussed their study of four brand campaigns (Applebee's, a major apparel brand, McCormick, Truvia) to explore the impact of Linear TV (LTV) and OTT, presence of synergy, and optimal frequency.

- **The challenge of traditional TV brand lift methods is their reliance on Opportunity-To-See (OTS).** The likelihood that a survey respondent saw a particular ad is estimated, with no validation that they actually saw it. The current study used Roku's Automatic Content Recognition (ACR) to identify exact programs and ads users have viewed, and when they viewed them – actual exposed viewers were surveyed for ad effectiveness.

- **Impact: How do ads stack up on LTV vs OTT?** While LTV appeared stronger (with more than twice as many exposures), OTT ads drove more purchase intent per impression. OTT punched above its weight when accounting for campaign spend. Lighter ad load on OTT can drive more ad recall per exposure than linear TV. Advertising on OTT is more likely to be associated with having a unique story to tell resulting in a 32% higher lift on OTT. Per impression, OTT provided a greater increase than LTV in perception that the "brand is innovative."

- **Synergy: How do LTV and OTT ads work together?** OTT boosts favorability, but synergy drives the greatest impact. Viewing the ad on both platforms leads to more than a two-fold increase in brand favorability. Augment LTV with OTT to drive ad recall.

- **Optimization: How many exposures are enough?** Across campaigns, incremental impact of LTV exposures peaked at 10x frequency. OTT makes impact sooner at 7x frequency. Exposure on both makes maximum impact at 6.5x frequency. Efficiency is highest with a combined approach. Adding in even a limited amount of OTT is recommended.

- **Best practice:** Synergy between LTV and OTT means having a mixed campaign is best. But because OTT's ads are more efficient per exposure, even adding a small amount of OTT to your LTV campaign can have a big impact. Take advantage of OTT's precise targeting. Consider narrowing your target definitions rather than simply using your LTV campaign's target.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Under-the-Hood.pdf

In or Out?

Sunil Soman – Sr. Director, Measurement Innovation, WarnerMedia

Sunil Soman, Sr. Director of Measurement at WarnerMedia, discussed target performance in Advanced Television (OTT, CTV, Addressable TV, Programmatic TV, Data-driven Linear TV).

- **The industry has created scarcity in LTV**. These audiences are getting smaller, which drives up CPMs.

- **Demographics is not the best proxy for targeting.** The degree of targeting increases from traditional demo to data-driven linear to addressable. AUDIENCENOW (ANOW) Precise Prediction enables accurate targeting. The industry is getting better at understanding relative performance: Across two studies where both ANOW and demo-based campaigns were measured at the same time, ANOW Return on Ad Spend was roughly 1.6x the demo campaign. The campaigns ran at the same time with similar budgets.

- **Precision targeting drives impact.** An example from the auto industry demonstrated that the viewers "in-target" had +16% lift in dealership visits, as well as higher ad awareness, message association, brand favorability and purchase intent compared to the "out-of-target" viewers.

- **Data-driven Linear is incredibly effective at driving short term response as it delivers the best of both worlds: targeting and scale**. "Embrace the Waste" to identify how to refine target definitions. A more holistic view of all outcomes associated with campaigns throughout the funnel will lead to better campaign optimization.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/In-or-Out-v2.pdf

Audio and Video at the Intersections of Digital Video and Linear TV

Laura Gambino – Data Scientist, Omnicom Analytics
Paul Lindstrom – Head of Research & Analytics, Tunity Analytics

Laura Gambino, Data Scientist at Omnicom Analytics, and Paul Lindstrom, Head of Research & Analytics at Tunity Analytics, presented a deep dive into the previously unmeasured OOH Linear TV (LTV) audience.

- **There has been a large gap in measurement when video is seen but audio can't be heard, such as in the majority of OOH LTV viewership.** LTV metrics has traditionally been based on audio, not video. This has led to an estimated 75% of OOH LTV viewership being missed for the technical reason connected with audio recognition. In addition, digital video being measured by video, rather than audio, has also contributed to undervaluing LTV when comparing media.

- **Through new technology, OOH LTV audiences can now be measured.** The Tunity app allows users to scan any LTV program and stream the audio to a mobile device. The current study used the app to test the connection between in-home and OOH LTV audiences.

- **In-home vs. OOH LTV viewing:** In every segment, daytime and primetime are the biggest chunks that people are watching at home. The top 10 networks watched at home are also viewed OOH. Regardless of networks, criminal programming is heavily watched at home. Regardless of venue, people who watch content OOH want to know about sports and current events.

- **Location of OOH viewership is very important; it causes different skews in the demographics:**

  - **Bar and restaurant viewers tend to be male, younger, and heavy sports fans.** Their viewership is likely to peak in the evenings as they are likely to have families using the home TV. They watch soccer, football, basketball – mainstream sports, while watching more niche sports, like golf, at home.

  - **OOH office viewers also tend to skew male, but slightly older, who want to stay on top of what's going on in their industry**, such as financial news. They tend to save sports programming for home.

  - **OOH gym viewers are more likely to be women** (compared to the other two venues)**, who want to be in-the know**. They tend to watch news programs. At home, they view more entertainment programming

  - **OOH residential viewers are the oldest** and may be using Tunity as a way to hear TV content in their home.

- **We need to think about how OOH audiences can contribute to TV campaigns.** By taking into account the preferences of our target audience, we can choose content that this audience is likely to watch in-home and OOH, which will make a campaign more efficient.

- **As an industry, we need to further investigate how to incorporate OOH viewership into the efforts to develop a standard cross-screen measurement methodology**.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Audio-and-Video-at-the.pdf

TRACK 2: ANALYZE THIS: COMBINING PANELS & SERVERS

Combining Random Forest Technique and Algorithmic Simulations

Derrick Gray – Chief of Measurement Sciences, BARC India
Praveen Tripathi – Founder & CEO, Magic9 Media & Analytics Pvt Ltd India

Derrick Gray, Chief of Measurement Sciences at BARC India, and Praveen Tripathi, Founder & CEO of Magic9 Media & Analytics Pvt Ltd India, shared how BARC and Magic9 developed a Viewer Attribution Model (VAM) to convert household level Return Path Data (RPD) into individual viewership data.

The Algorithmic Model, modified based on data from the Machine Learning model, provided a more effective VAM. VAM is based on the concept of statistical matching. Individual level viewership in BARC currency data (referred to as Donor) was used to attribute individual viewing in BARC RPD data (referred to as Recipient).

A conventional algorithmic model was developed using the principles of statistical matching and subsequently iteratively improved in order to produce better results. In parallel to the conventional algorithmic model, Machine Learning techniques were also explored. The Machine Learning models provided better accuracy for individual viewer classification than the algorithmic model; however, the algorithmic model produced better results for predicting the overall incidence of viewing.

- The Algorithmic model on its own produced an accuracy of 53% and incidence of viewing of 49% which was closer to actual incidence of viewing of 47%.

- The accuracy of the Machine Learning model was higher; however, it did a poor job on estimating incidence of viewing. The Machine Learning model produced 40% of attributed incidence of viewing as against 47% of actual incidence of viewing.

- **The accuracy and incidence of viewing of the algorithmic model was improved with the addition of important variables – as indicated by Machine Learning model – were included.**

The gradual improvements made to the VAM algorithm included:

- Differential attribution scheme for ad breaks and promo breaks

- Identification of Donor HHs using up to 56 days.

- Differential attribution of viewership minutes between viewing members of the HH.

Key takeaways:

- Machine Learning helped the presenters to discover additional variables for attribution.

- Two variables discovered by Machine Learning improved accuracy of model from 53% to 54%. The final algorithmic model yielded a higher accuracy and performed better in predicting the incidence of viewing. **This final algorithmic model does a good job in allocating minutes for the top genres and channels.** A comparison of the recipient and donor minutes on Total TV at aggregate levels – such as All India, State Group, or Town Class – indicates that the differences are within a very tight range.

- More important, for the modified model: Incidence of viewing for Recipient = Incidence of viewing for Donor.

- Post-attribution, recipient viewing minutes for top channels are within +/- 10% of donor viewing minutes for the same channel.

- Potential improvement areas have been identified.

- **However, there is still room for improvement. The goal is to improve the accuracy of the model from current 54%.** The areas for improvement will be taken up in next phase of development in order to further enhance model accuracy.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Combining-Random-Forest.pdf

How to Use Hybrid Measurement Methods

Andrew Cheng – Business Development, CSM Media Research
Zod Fang – Head of Data Center & Knowledge, GroupM China
Jianbing Xiao – Deputy Managing Director, CSM Media Research

With the goal of creating better methodologies to combat issues of invalid traffic and target audiences and to effectively assess and evaluate the advertising environment for Connected TV and devices in China, hybrid measurement methods were developed. Such methods were also able to resolve advertisers' key concerns relating to Connected TVs and achieve more precision advertising in China.

Background:

- Over 44.9% of households in China's 52 key/A/B cities owned Connected TVs and devices with estimated 320 million in market.

- Over 70% of co-viewing occurred on Connected TVs & devices households with on-demand viewing dominating a significant percentage of viewing time.

- **Advertisers in China had adopted media planning and evaluation based on online and mobile models. Their inherent challenges have now impacted Connected TV and devices. Challenges include: brand safety, invalid traffic, viewability and accurate target audience demographics.** In order to address these challenges, GroupM China supported CSM Media Research's pilot work.
  - o Method 1: Traditional TAM panels supplemented with census-level server log data from on-demand content providers to provide true target audience demographic information.
  - o Method 2: Use multiple verification methods to authenticate Connected TVs and devices enable viable devices with virtual IDs to be use in ad serving and evaluation.

Takeaways:

- **By utilizing true viewing behaviors and other verification data from real TVs and devices, more realistic protection against invalid traffic on smart TVs was created.** Since virtual ID (UID) de-sensitized confidential information is utilized, it is truly a confidential, legal and compliant way to use and circulate Connected TVs and devices within the ad industry.

- **TAM panels were used to supplement content providers' census-level on-demand server log data, which were combined with accurate virtual ID (UID) authentication**. This methodology enabled the development of a comprehensive measurement system that includes traditional live channels and on-demand platforms with true target audience information for targeting individuals rather than devices.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/How-to-Use-Hybrid.pdf

How to Measure TV Ad Exposure: Comparing Passive vs. OTS Methods of TV Exposure Accuracy in Ad Effectiveness Research

Corey Jeffery – SVP, Global Head of Product Leadership, Kantar

This presentation compared passive vs. OTS (opportunity-to-see) methods of TV exposure accuracy. Passive data collection for TV provides immense opportunity in terms of being more granular, faster to ingest, not dependent on weighting and projects, allowing for direct match with additional data sets, capturing evolving media delivery such

as addressable and effectiveness for survey-based ad testing. However, passive data has a viewability problem in terms of coverage, assignability and non-existent viewers.

The audience measurement landscape is constantly evolving, and must stay relevant in terms of consumer media consumption changes.

Passive data collection for TV (vs. asking respondents) provides immense opportunities. Set-top box and Smart TV data provide passive data sets at scale. Passive data collection promises more granular data, faster to ingest, not dependent on weighting and projections, allows for direct match with additional data sets, captures evolving media delivery such as addressable and advantages for survey-based ad effectiveness testing.

However, passive data has viewability problems, such as coverage, assignability, non-existent viewers.

Kantar set out to answer key questions:
- How can we confidently use passively collected TV data?
- Can the two data collection methods - passive vs. OTS - be used interchangeably or can they be blended?
- How do we use respondents whose exposure responses do not align?

The methodology to answer these questions involved 10 tagged exposure campaigns, 3 passive ACR exposure campaigns in multiple industries.

- OTS was used to understand the scope of the problem. Although it provides the best current estimate of whether a person really did see an ad, **32% of people who were identified as having seen the ad from passive ACR data did not have to opportunity to see the ad.**

- Some of the known ACR passive issues were eliminating by limiting the sample of people who could answer OTS questions to only people who had positive OTT tag exposure, thus eliminating the random false positives from the OTS data. This hybrid approach reduces error in both types of exposure measurement. However, tagged TV (CTV, OTT) is only slightly better: **30% of people who were identified as having seen the ad from OTT/CTV data, did not have the opportunity to see the ad.**

False positives from passive data impact ad effectiveness:

- Using OTT data alone to identify unexposed/exposed shows small but significant lift for ad awareness, but none in consideration.

- Once false exposures are removed through OTS questioning, ad awareness lift grows and consideration lift also becomes significant.

- Even greater increases and significance is achieved when the false positives are moved to the unexposed cell.

Findings:

- Using OTT data along to identify unexposed/exposed shows small but significant lift for ad awareness, but none for consideration.

- Once false exposures are removed through OTS questioning, ad awareness lift grows and consideration lift also becomes significant.

- Even greater increases and significance is achieved when the false positives are moved to the unexposed cell.

Key takeaways:

- Using OTS to confirm passive exposure from ACR or tagged OTT data helps eliminate TV's viewability problem.

- Solutions relying solely on passive data could have errors as high as 32%.

- Using passive data without a secondary hybrid exposure source may cause over inflation of exposure which will lower ad effectiveness lift.

- Using passive data helps resolve some of the issues with OTS by reducing the recruitment sample to people who could have been exposed, helping OTS as addressable gains traction.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/How-to-Measure.pdf

E Pluribus Unum

Josh Chasin – CRO, comScore
Frank Pecjak – SVP, Statistical Services, comScore

Single source functionality in a multi-sourced world is challenging to achieve. In the past, researchers had a single data set based on a sample. However, audience measurement is evolving from survey sampling and is now more complicated. Computer panels, RPD, TV viewing data, digital census data, app data, etc. all represent disparate data sets that increase measurement challenges.

Multi-sourcing audience measurement would include:

- Granular profiles.
- Needs to be projectible to the universe.
- Accessible via vendor tools as well as third party software.
- Supportive of unlimited cross-tabs, Boolean logic, etc.

How do we resolve? The goal is to understand real behavior and will include the creation of Personas:

- Personas-new audience measurement respondent: enumeration and develop granular profile of audience.
- Personas-Behavioral allocation with reporting layer.

Among the points raised during the panel discussion:

- It is more difficult to connect datasets in the age of privacy.
- There is a need to rebuild our measurement constructs in a rigorous manner.
- We expect granularity and scale but need to adjust to this new environment.
- Recalibration of data against the panels is recommended.

Key takeaways:

- The challenges we are facing in audience measurement have now become more complex.

- **The desired outcome is a massive, unified dataset combining panel data, census data, Big Data assets, and universe targets into a seamless, flexible database.**

Presentation not available.

Track3: Creative in Context

The New Primetime is Personal

Kevin King – Agency Measurement Lead, Google
Slaine Jenkins – VP, Research & Strategy, Insight Strategy Group
Abby Thorsgaard – Manager, Primary Research, Omnicom Media Group

Kevin King, Agency Measurement Lead at Google, Slaine Jenkins, VP of Research & Strategy at Insight Strategy Group, and Abby Thorsgaard, Manager of Primary Research at Omnicom Media Group, shared their research findings on what primetime means to today's consumers.

- **Current media habits are challenging traditional definition of primetime.** The word "primetime" conjures up images of families gathering together around the TV all at the same time. For advertisers, this is the most valuable programming window on TV, and primetime means premium cost. However, the way we interact with content and media has changed. Even though families may still be in the same room, this does not mean that they are paying attention to the same thing.

- **Primetime is now personal and driven by passions and need states.** People around the world can now watch whatever they want whenever they want on multiple screens. Digital platforms let the consumers choose the programming and shape media to fit their habits. According to research by the [IAB (2018, Fall)](#) "people are creating their own personal primetimes 'across dayparts, content verticals, and screens'."

- **Digital video is hyper-personalized and personalization changes across devices and platforms.** To better understand what drives the personalization of content choices, Google partnered with Omnicom on a three-phase qualitative study. This research also confirmed that this hyper-personalization is based on a wide ranging set of need states.

- **Today, the viewers are the gatekeepers for popular programming – but how do they define valuable content?** To investigate this question as well as explore what emotional needs underlie and drive these content decisions, and the relationship between content and ad experiences, Google partnered with Insight Strategy Group and conducted a quantitative study of 13-64 year-olds (n=3,200). The survey sampled engaged video viewers who watched a minimum of 5 hours of video content consumed in a week, and also viewed a video in the past 24 hours before the survey.

- **People's personal times include a combination of both short and long form content.** Viewers are not just watching and valuing their favorite show at 8:00 pm every night. They are engaging with video experiences throughout their day, and they highly value all of these video experiences. This engagement can vary dependent on format and production quality:
    - **Long-form TV episodes** was the most frequently watched content in an average 24-hour period (29% of respondents).
    - But when looking at the long-tail of video experiences, **short-form (43%) is catching up to long-form (57%)**.
    - **User generated content (UGC) is also on the heels of professionally produced content** (40% vs. 60%).

- **People are tuning in to videos that align with personal values.** Max difference analysis showed that relating to people's passions is 3x more important than whether or not the content features celebrities. Personal resonance was also deemed more important than whether the content has a high production value, or is shown on a premium or preferred network or platform. What really matters to people is whether the content hits home for them on a personal level.

- **Viewers say that mood dictates content choice.** Emotional needs change throughout the day. Online video is able to fill different emotion need states: relax, immerse, connect, learn, reflect, keep-up. Short-form and UGC satisfy needs that are not met by traditional TV.

- Final takeaway: **Primetime is personal, and personalized marketing is key to success (based on person, platform, and content). Personalized marketing at scale is key.**

The presentation was followed by a short Q&A with the audience, moderated by Horst Stipp, Ph.D., EVP of Research and Innovation at the ARF. The following are key highlights:

Horst: **You talked about online video being able to fulfill various needs states – immerse, connect, learn, reflect, keep-up and relax. How is that different than traditional television?**

Kevin: The idea of connecting, keeping up, and learning have really emerged more with UGC. For short-form, being able to connect with your passions based on whatever those passions are at any time. Part of it is accessibility – you can search for anything now and it's different than just turning on the TV and finding something to watch. But these may be universal human need states that are being met by video more and more.

Q: **Are there variance in receptivity to messaging when watching videos in primetime – in different forms of primetime?**

A: There needs to be some alignment with need states within the messaging. For instance, in the morning (power up, gather info), later in the day (social connection), power down at night. But there also similar need states important in messaging throughout the day.

Q: **Any info around when need states are together – content that brings people together?**

A: One of the six need states is relating to others, connect. It doesn't have to be co-viewing at the same time anymore, but co-viewing is no longer about being in the same time and place. People are still connecting through the content.

Q: **From the client side – what are the need states that are being sought for? Are they cautious about certain need states?**

A: YouTube started to introduce the idea of delivering creatives based on these need states, but this is also based on content actually watched. On the size of the need states – currently, immersing and relaxing content are the most frequently delivered. Newer need states are less fulfilled – there is more whitespace.

Q: **Can content be a proxy for need states? And also for the viewer?**

A: The answer is that it depends. People are getting multiple need states out of the same video. Certain media can be fulfilling different need states at the same time, there is overlapping. Viewing occasions is also a factor. But there is a lot of opportunity to understand the custom recipe for each distinct type of viewers.

Presentation not available.

Quantifying and Aligning Emotion
Mike Bloxham – SVP, Global Media & Entertainment, Magid
Liz Huzarik - EVP, Media Research & Insights, Warner Bros. Entertainment

Mike Bloxham, SVP of Global Media & Entertainment at Magid, and Liz Huzarik, EVP of Media Research & Insights at Warner Bros. Entertainment, discussed how to make promos that lead into local newscasts more effective.

- **Magid conducted a study of Warner Bros. local news stations and programming to investigate the impact of emotional alignment between promos for local broadcasts and the shows that lead into them**. The study included focus groups of lapsed viewers across six markets (LA, Minneapolis, Chicago, Boston, Houston, Oklahoma City); a quant regional survey across nine markets – looked at 27 local station promos; two national surveys (one by Magid and the other by Katz who looked at active viewers in the key markets).

- **The study found that viewers still highly value local news:**

    o Despite all of the fragmentation, **local news is the main source of news** at 37% (vs. 13% for social media; 11% for national cable; 10% for national network, 10% for print).

    o **Local news is rated the most trustworthy news source across all demographic segments** at 78% (vs. 65% for national network; 62% for print newspapers; 57% for national cable; 57% for radio; 37% for social media).

    o Why is it so strong? **Local news is interwoven into the community and neighborhood**: 70% grew up watching local news. Local anchors are seen as "informed friends": 92% say relatable, 87% say trust and value, 62% share what the local anchors said with friends.

    o **The four F's: Family, Friends, Food, Faith** are the what the viewers say are important to them.

- **However, local news is under siege:** 73% of 18-34 year-old lapsed viewers are more likely to get news from social. Local news viewership is not being passed down to the younger generation. Also, 60% of all lapsed viewers say that "it takes too long for the story I want to see."

- **Emotional alignment of promos and local news increases tune-in.** Current and lapsed local news viewers were shown an emotionally moving video clip from the daytime talk show, *Ellen*, then shown two promos. The first promo was of a teen-murder suspect. The second promo was of a local boy meeting the pope. The adage that "if it bleeds, it leads" doesn't necessarily pan out. Tune-in was higher with the more positive promo after the positive *Ellen* clip.

- **Best practice for local news promos:**

- o The **more tonally alike, the more likely to stay tuned** to the news.

- o **Strike a balance between the positive and negative**: 81% of current/lapsed viewers are open to hearing about serious subjects and events on local news, but they want to see the meaningful resolution to conflicts, or the positive in a story (even in scary or sad situations). Viewers do not want to be left feeling anxious or sad, and 45% say that promos that try to shock and scare are less credible.

- **Message around four F's: Family, Friends, Food, Faith.**

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Quantifying-and-Aligning-Emotion.pdf

Using Creative to Drive ROI on Twitter

Nathaniel Greywoode – Advanced Analytics Lead, Marketing Insights & Analytics, Twitter
Michelle Grushko – Data Scientist, Marketing Insights & Analytics, Twitter

Nathaniel Greywoode, Advanced Analytics Lead of Marketing Insights & Analytics at Twitter, and Michelle Grushko, Data Scientist of Marketing Insights & Analytics at Twitter, discussed the key creative drivers of ROI on Twitter.

- **The study analyzed 55 Twitter creatives to identify which creative assets were most correlated with sales ROI outcomes**, as creative execution is the #1 controllable influence on advertising ROI. Twitter partnered with Data2Decision in 3-part approach: MMM, Qualitative Analysis using AdCompass, Creative Coding and meta-analysis.

- The key drivers of ROI on Twitter are:

  1. **Prominent Branding**: Ads with branding throughout the video had 2.2x ROI compared to ads without prominent branding.

  2. **Sound-off strategy**: 80-90% use their mobile without sound. Average ROI is 1.8x higher for creative assets that work without requiring sound.

  3. **Effective Tweet copy are focused** (i.e., brand/product mentioned in Tweet text) **and connected** (message conveyed matches video content). Eye-tracking study found people pay more attention to copy on Twitter than other platforms: 90% on Twitter vs. 55% on Facebook, 61% on Instagram.

- High return on attention will lead to high return on investment.

Presentation not available.

Business Impact of Women's Presence in Advertising

Rebecca Azevedo – Marketing Science Agency Partner, Facebook

Rebecca Azevedo, Marketing Science Agency Partner at Facebook, discussed how improving the presence and portrayal of women in advertising leads to greater ad effectiveness.

- **The Global Gender Gap is increasing.** In 2016, the Global Economic Forum (GEF) forecasted that we will close the gender gap by 2099. In 2018, GEF adjusted the forecast – gender parity is likely to be reached by 2126.

- **Gender inequality is also reflected in advertising.** Gender inequality often manifests in ads through symbolic violence and symbolic representation. Ads 4 Equality analyzed ad campaigns in Brazil and the U.S. and found that the overwhelming majority of ads featured male characters even though women make up half of the population. In Brazil, only verticals related to inside the home featured female characters, all "outside" verticals featured only men.

Campaign representation by gender in USA*
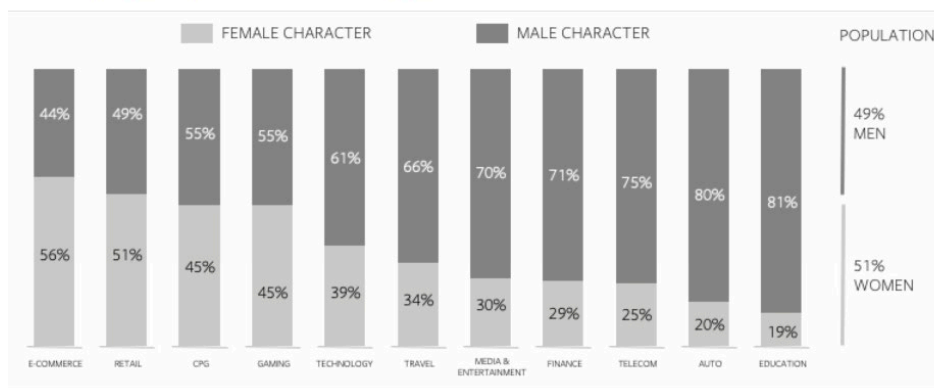
*Ads where only one gender appears (72%)
Source: Internal Facebook Data, United States, October 2018 | Census, 2017

- **Gender-positive ads pay off.** Ads 4 Equality is an initiative to help brands generate ads they are truly diverse. They provide a toolkit to help brands check their ads for unconscious bias and provide best practice to create stereotype-free portrayals.

- **Case study:** Ads 4 Equality helped a beer brand in Brazil increase lift in purchase intent by eliminating target bias in their campaign. The brand was running ads that only featured a male character even when stats showed that 50% of the women in Brazil are beer drinkers. A 2-cell experiment where the only change was the main character (male, female) found that when women saw the ad that featured a woman character, there was a 15pt lift in purchase intent.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Business-Impact-of-Women.pdf

AI and Machine Learning for Creative Development

Dinesh Gopinath – Global Head of Products, Kantar Analytics

Dinesh Gopinath, Global Head of Products at Kantar Analytics, discussed Kantar's partnership with Coca-Cola to use AI and Machine Learning (ML) to predict ad performance across global markets.

- **How do you maximize the value of existing creatives across the network?** Can a successful ad in one market transfer to another country? This would significantly reduce production cost and copytesting.

- **How do I gain confidence without testing in every market?** AI/ML makes this simpler. AI/ML maximizes creative development effectiveness, shrinks production costs, and accelerates idea-to-value cycles to weeks and days rather than months and quarters.

- **ML algorithms were used to build a highly accurate predictive model**. Input to the model: ads already tested by Coke in 80+ countries, 100+ The Coca-Cola Company brands, Ad type (finished film and animatic). The model also considered cultural aspects, state of the brand in those countries, ad characteristics, brand metrics from surveys, brand sales and volume, variances of ad tested within the same country. Results: The model accurately predicted ad performance indicator with correlation = .94.

- **Coca-Cola saw 30% savings in production costs and 1-15% savings in copytesting costs.**

- **Next stage: Can we predict the performance of an ad as it is being played?** Kantar is looking at different data, including the emotions of the consumer as they watch the ads through facial expression. This would be a great tool to work side by side with a human being, to optimize the ad as it is plays, and enable the creation of the ads by helping identify salient shots of the ad. Goal is to deconstruct and reconstruct an ad, in conjunction with an ad agency, and optimize before launch, in almost real-time.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/AI-and-Machine-Learning.pdf

Attention Amplifiers: Eye Tracking

Michael Follett – Managing Director, Lumen Research

Michael Follett, Managing Director at Lumen Research, discussed how brand ads in premium formats boosts attention to subsequent ads.

- **Context is radically important: Location of the ads and proximity to the editorial increases attention.** An average MPU on the UK newspaper, *Guardian*, has a 25% chance of being seen; on eBay, only 4%. When you are on eBay, you are there to buy, but the *Guardian* provides a lean back experience and you are more likely to notice the ad.

- **Why this matters: the more people look at things, the more they remember, then buy:**
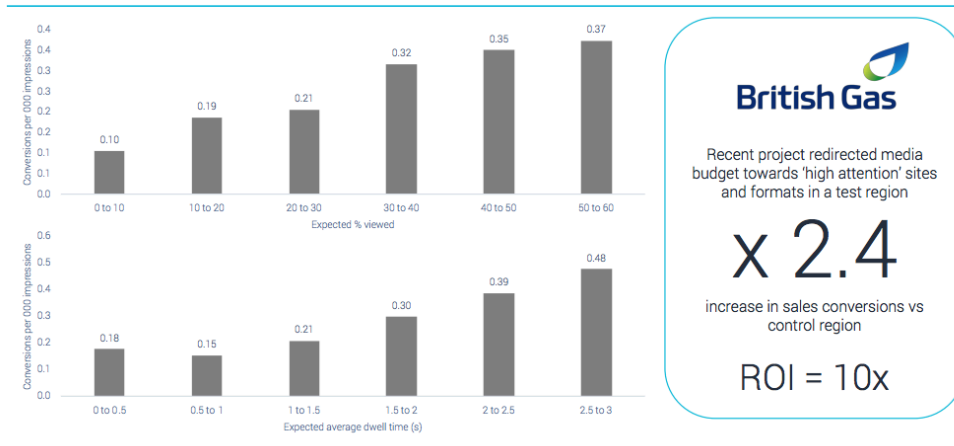
- **Lumen partnered with Inskin to understand the amplification effects in advertising.** Key findings:

  o Skins get much more attention than standard display formats: 38 min of attention on high-quality skin vs. 2.5 minutes of attention on digital display. There was also a priming effect:
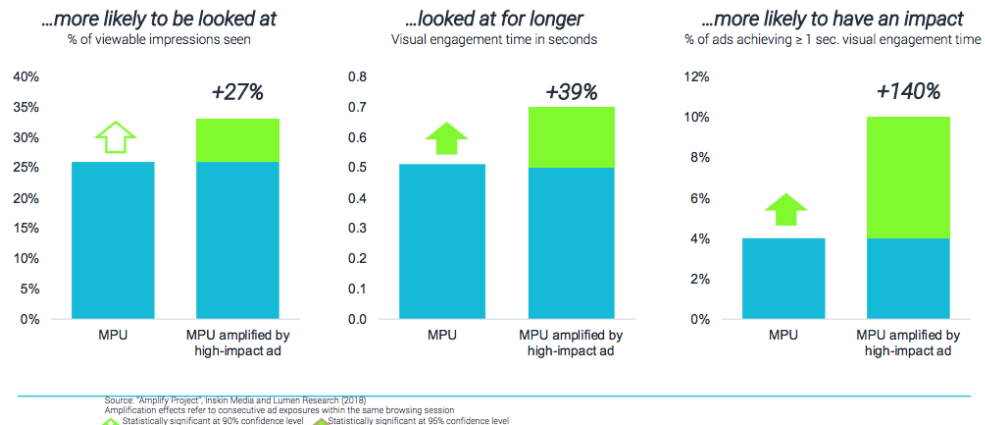
- **Best practice: Optimize for attention through creative, media, and media flighting.**

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Attention-Amplifiers.pdf

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## Motivational Targeting + Context = Branding/Sales Lift

Bill Harvey – Founder & Chairman, RMT
Gaurav Shirole – Group VP, Product & Client Solutions, 605

Bill Harvey, Founder & Chairman of RMT, and Gaurav Shirole, Group VP of Product & Client Solutions at 605, discussed how contextual ad buying leads to branding and sales lift.

- **RMT's DriverTags™ is a system for contextual ad buying.** In Linear Television, DriverTag™ (DT) Resonance between the ad and the program (or network, or daypart on a specific network) becomes part of the optimization along with purchaser targeting. Resonance score is calculated by the same DT between ads and program.

- **Ad context and resonance matters.** Nielsen Catalina's study for Turner showed that DriverTag™ Resonance is worth +36% Sales Lift. New study by 605 of a CPG brand found similar results:
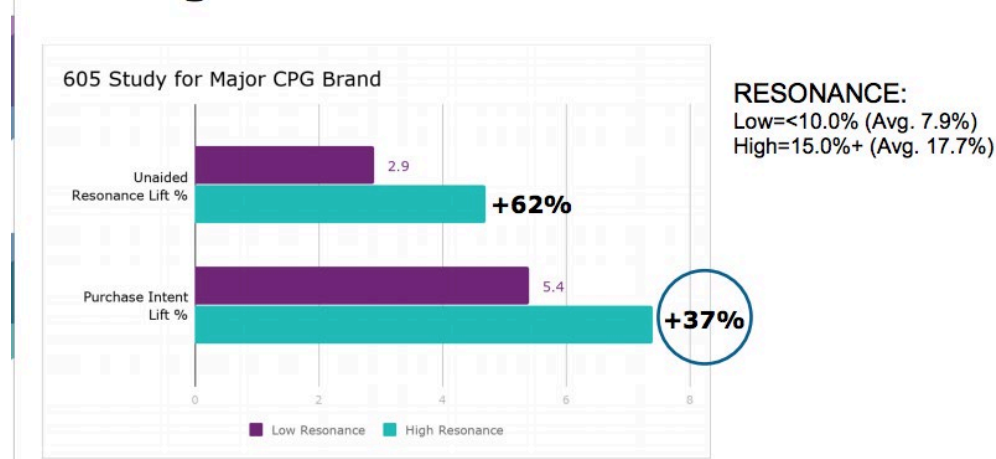
- **Best practice: Impact Maximization on Linear TV (in addition to Target Reach Maximization).**

    o Buy network/dayparts with >20.0% DriverTag™ Resonance with your ads.

    o Wherever program specific premium justified or nonexistent, buy high resonance programs rather than rotations.

    o Where multiple executions, give each environment its most resonant execution first.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Motivational-Targeting-and-Contextv2.pdf

Premium Pods

Eldaa Daily – Research Director, Ameritest

Eldaa Daily, Research Director at Ameritest, discussed when premium pods are worth the cost, when they are not, and how to know.

- **Do premium ad pods always deliver additional value?** To investigate this question, Ameritest evaluated how ads performed in the context of a 30-minute sitcom, *Young Sheldon*. This is a newer program that is popular with broad demographic appeal, and has self-contained episodes. Study design: 1,300 participants (typical sitcom viewers); simulated viewing experience – ads seen in premium pod positions and standard pod positions (four test ads); post-survey (online) after the participants saw the entire program.

- **As a group, the ads performed as expected with ads in position 1 performing best, and the ad in the last position, performed the worst.**

- **However, when comparing two ads (Target and Whirlpool) to test for the impact of tonal congruence/incongruence and pod position, only one performed as expected.**

Ameritest Performance Index
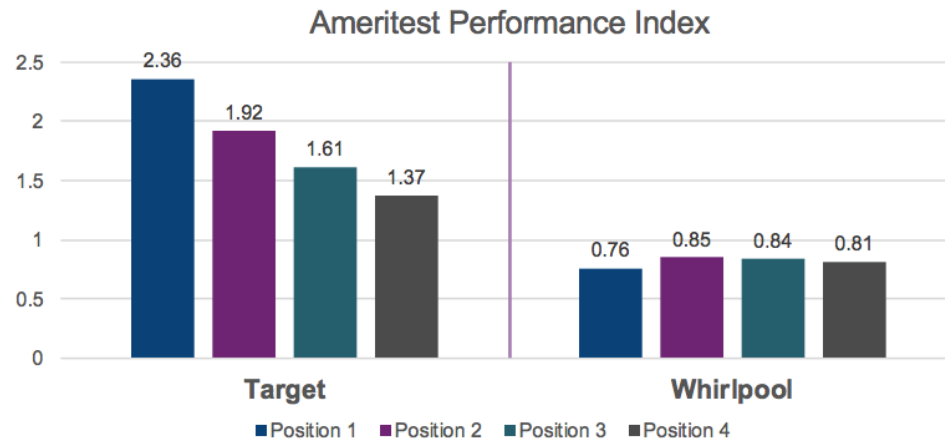
- Both ads rated similar in creative quality, subject congruence, and audience congruence. Both had to do with school (the *Young Sheldon* episode has to do with school). However, **while the tone of the Target ad was up and happy, the Whirlpool's ad had a darker and somber tone.**

- **The Target ad aligned with the audience intent, but the Whirlpool spot conflicted with the audience intent, which resulted in poor performance regardless of the pod position.** People see what they look for (top-down attention): things that don't meet that objective, falls out of attention. The audience creates the story they want; they hear the story Target intends to sell; but they change Whirlpool's story. The story is not only created by the story-teller but also by the story-hearer.

- **Premium pod value:**
    - **Worth it** when strong creative quality that tonally aligns with the content.
    - **Not getting full value** when creative tone is incongruent tonally with content.
    - **How to know:** Understand what drives an ad's performance is critical to know where it will work best.

- **Implications:**
    - **For researchers:** Tonal alignment between programming and assets needs to be included in ad ROI evaluation.
    - **For advertisers**: When paying a premium to run on reduced ad-load programing, tonal congruence needs to play a key role in deciding whether or not to pay an additional premium for different placement options.
    - **Media channels:** Advertising products and services continue to evolve, understanding tonal alignment needs to play a key role in product development.

- **Final takeaway:** Premium pod provides the opportunity, but it is up to the media buyer and creative to make most of that opportunity.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Premium-Pods.pdf

ARF KNOWLEDGE CENTER TRIP REPORT

TUESDAY, APRIL 16

MAINSTAGE SESSIONS

Opening Remarks

Scott McDonald, Ph.D. – President & CEO, ARF

In the second day opening of the conference, Scott McDonald, Ph.D., President & CEO of the ARF, discussed how true consensus can only come from candor, transparency, probity, and a willingness to change in the face of new evidence – not force. We need our eyes open; alert to both the empirical foundation of factual claims that are made, but also to the value judgments that our enterprise requires.

- **How can we shape the future for the benefit of our companies, our customers and our society?** The second day of the conference includes the first U.S. presentation of longitudinal analysis of optimal marketing allocations done on behalf of Britain's IPA (Institute of Practitioners of Advertising) based on an extraordinary 20-year database of marketing campaigns in that country. **Would a similar database in the U.S. be beneficial in answering the most fundamental questions that CMOs and CEOs face as they try to grow brands in a highly competitive and increasingly complex environment?** One of the research initiatives being considered now at the ARF could lead to the establishment of just such a database – an asset that could provide very unique value for ARF members in the future.

- It can be very difficult for parties with conflicting interests to come to consensus – especially amidst conditions of rapid change that make it more difficult for those parties to agree on the fundamental facts. **However, a forced consensus that lacks legitimacy will prove to be illusory and short-lived.**

- **And how do we get legitimacy?** Not from coercion or by fiat – or as Mao Tse Tung once claimed, from the barrel of a gun. **In our fields, we earn legitimacy from the presentation and critical evaluation of evidence drawn from transparent, replicable, and objective research.**

- **The ARF Certification process requires "radical transparency" on the part of the applicant.** The study on speed of ad messaging cognition that was helmed by the Mobile Marketing Association is the first to earn the distinction of passing this rigorous process. This doesn't mean its findings are true, but it does mean that **the researchers have observed the highest standards of scientific probity and thus the findings can't be casually discarded as partisan.**

- **Ultimately however, decisions about measurement standards also involve subjective judgments.** To have proof of some measurable cognitive activity after one second of ad exposure is not itself proof that an advertiser need pay for that. The present study looks only at cognition and not at any market impact that would bear more directly on the question of advertiser value of short-duration exposures. So the **discussion about when to start the meter running will inevitably involve arguments that go beyond the available evidence.** But future studies will build on this and lay groundwork for a more empirical justification for arguments about compensation. **This is how real legitimacy is built, brick by brick.**

- **The ARF Code of Conduct:** In the wake of the Cambridge Analytica scandal of just about one year ago, the ARF organized a Town Hall to discuss matters of data ethics, privacy and security, and then organized a working committee to draft a set of principles – a Code of Ethics – to recommend to the research, insights and analytics functions at ARF member companies. All members are encouraged to review the Code and affirm the principles that it articulates.

- **The ARF Board officially rescinded the 2017 David Ogilvy Award made to Cambridge Analytica** in the "big data" category. This was not taken lightly and was the product of deep and careful consideration of the evidence revealed in multiple official investigations in the US and the UK. In the judgment of the ARF Board, the preponderance of evidence indicates that Cambridge Analytica was not fully transparent in its Ogilvy application and that it behaved in ways that are inconsistent with – even antithetical to – the ethics enshrined in the new Code, as such, the Board exercised its right to withdraw the award.

Full speech: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Scott-McDonald-AUDIENCExSCIENCE-2019-Day-2-Opening-Remarks.pdf
Video: https://www.youtube.com/watch?v=Z1YTiWL7xB4&feature=youtu.be

Marketing Effectiveness in the Digital Era

Les Binet – Head of Effectiveness, adam&eveDDB

Introduction by **Suzanne Grimes** – President, Westwood One and EVP Corporate Marketing at Cumulus Media

Over the last 10 years, Les Binet and Peter Field have become known as "The Godfathers of Effectiveness," thanks to their ground-breaking work with the IPA. In this talk, Les presented some brand new research, which looks at how the rules of marketing effectiveness need to be adapted to the digital age.

Key takeaways:

- The fundamental rules of marketing have not changed. Smart marketers combine the old and new.

- The digital revolution is increasing efficiency, but budgets still matter. Brands need to re-invest in marketing communications.

- The digital revolution is making activation easier, so brand building is becoming <u>more</u> important, not less. Budgets need to be re-balanced.

- Brand building is still the main driver of long-term growth. But you need to balance activation with branding. The sweet spot for most marketers is 60:40 (branding: activation).

- Online and offline media work in synergy. Smart marketers use both together in balance.

- For brand branding: Go for broad reach, emotional and memorable content. Whether online or offline, video formats work best, and music is massively important. For activation: Go for tight targeting, informative and responsive content.

<u>**Brand vs. Activation:**</u>
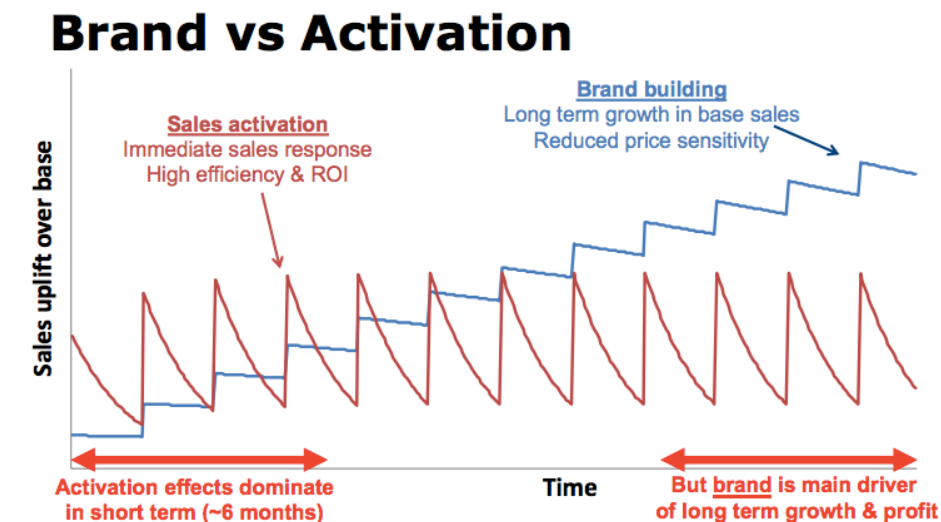
- **Activation** (e.g., direct marketing, performance marketing, and a lot of digital marketing) removes any barriers to the response - makes it as easy as possible (e.g., map to store, voucher).
    - **When you get it right, there are big spikes in your sales, high efficiency and ROI.**
    - When you maximize short term response, **the decay response is very rapid** – do not get much build and accumulative effect.
- **Brand building is the main-driver of long-term growth and profit:**
    - You need to **build long-term mental structures, implicit or explicit, that bias people's behavior over the longer term** through: repeated exposures; broader reach; more memorable activities; talking to people earlier on in the purchase process (2-3 years before buy).
    - If you get that right, the short term effect may be slower – but decay is slower.
- **You need both kinds of activities working together**: **long-term brand building (to create brand desire) and activation (to convert the desire into sales).**
- **From a measurement point of view, there is a terrible dilemma.** The activation spikes are easier to see, but it's harder to look at long-term effects of the brand building that is the main driver of growth.
- This finding held true for pretty much all categories, most companies, most cycles, except for some brand launches**.**

Best Practice

1. **Reach is the most effective strategy**. Talk to whomever is likely to buy the category. Reach is the primary driver of effectiveness. For brand building, optimize for broad reach and targeting for activation. The IPA research supports findings from Ehrenberg-Bass Institute that brands grow – not through loyalty, but through penetration. Loyalty strategies had the smaller profit gains and were the worst at increasing brand loyalty. It's better to focus on expanding the customer base – loyalty will follow.
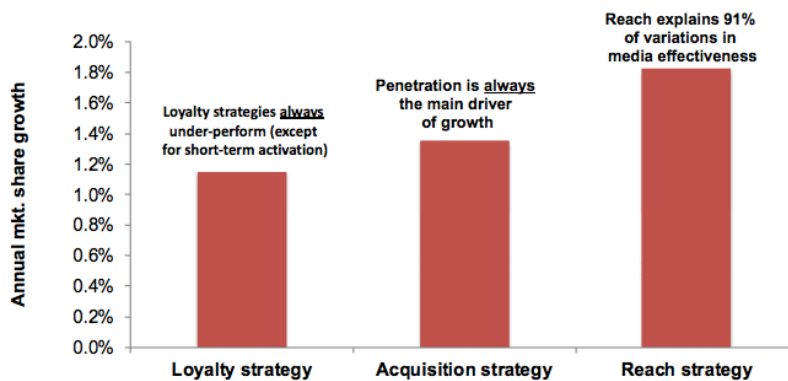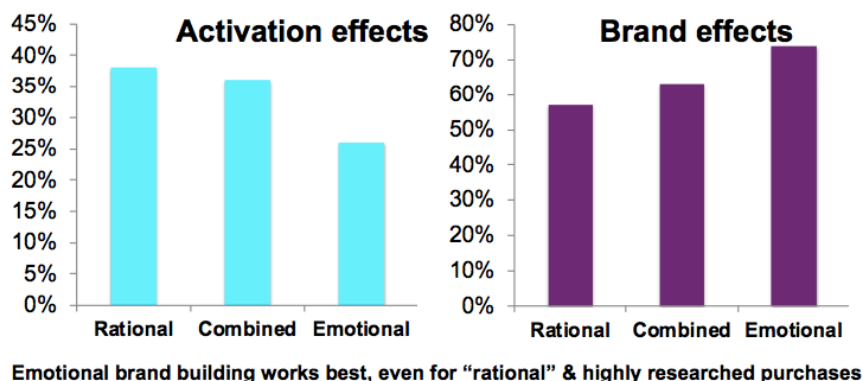

Base: 2008-16 IPA cases

2. **Maximize high mental availability for your brand.** Awareness is not a one-off job. You need to have a stake in the "share of mind". Knowing the brand is first base (passively accept the brand). This is followed by spontaneous awareness or salience (actively seek the brand). Top level of mental availability is social currency or fame (social amplification, earned media, influence and advocacy). As you go up the scale of mental availability, the bigger the return. **Fame increases efficiency 4x and maximizes profit**.

3. **Get the content right.**

Messages vs emotions

Activation effects / Brand effects

Emotional brand building works best, even for "rational" & highly researched purchases

- **Short-term activation (STA):** Using hard, relevant message is more effective for direct response**.** Do not take the artistic, entertaining way - **just give the information they need.**

- **For everything else, brand advertising, the more you move away from messaging to pure emotion – the bigger the penetration, the bigger the loyalty, and the greater the profits, even in categories that appear very rational, like financial**. Advertising is not primarily a communication channel; it's more like a "Pavlovian Effect" channel. You need creative work because you need those emotional responses**.**

- **Great creative work is very, very important, but you also need the budget and scale behind it.** Advertising is a weak force – and so, you need to hit people at scale. **Even in today's world, there is no substitute to paid media for doing that.** Earned media can increase effectiveness by 26%+. You don't get responses to earned and owned media without paid media - unless you are very, very lucky.

4. **Invest in Share of Voice**. SOV >SOM brands tend to grow. SOV<SOM brands tend to shrink. Despite all the changes in the market, there is no sign that this effect is changing. Like gravity, there is no substitute for spending money.

5. **Balance the budget:** How you allocate the SOV matters. **60:40 (brand building: activation) is the sweet spot.** If brand building is easy in your category, you can dial down the brand spend. In categories with high degrees of innovation – it's easy to sell, you can dial down the activation. In categories with online research (e.g., booking holidays) where activation is easy, dial it down.

   In the digital economy, you can cut the budget on the activation part, but it's more important to spend more on the brand building:

Budgeting for a digital world
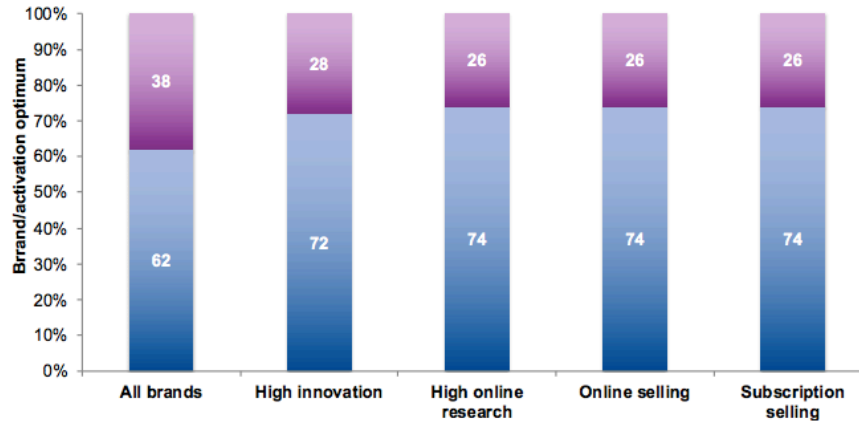
Source: IPA Databank, 1998-2016 for-profit cases

6. **Online and offline media work in synergy. Smart marketers use both together in balance.**

   - For brand building: Go for broad reach, emotional and memorable content. Whether online or offline, video formats work best, and music is massively important.

   - TV still works. Traditional media are working better than they used to – online marketing is making traditional marketing better.

   - Too many traditional marketing companies are trying to be pure digital – ignoring the value of traditional. Digital companies are discovering the power of traditional media; e.g., FAANG has tripled their traditional media over the last few years.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Marketing Effectiveness in the Digital Era.pdf

Video: https://www.youtube.com/watch?v=y3IHgh5WVow&feature=youtu.be

The Race to Own the Future of TV

Julie DeTraglia – VP and Head of Research, Hulu
Shelly Kellner – SVP, Corporate Intelligence, Analytics & Consumer Insights, WarnerMedia
Ali Rana – Global Head of Measurement and Business Partnerships, Snapchat
Moderator: **Sara Fischer** – Media Reporter, Axios

Sara Fischer, Media Reporter at Axios, moderated a panel with Julie DeTraglia, VP and Head of Research at Hulu, Shelly Kellner, SVP of Corporate Intelligence, Analytics & Consumer Insights at WarnerMedia, and Ali Rana, Global Head of Measurement and Business Partnerships at Snapchat, on the race to own the future of TV. T

The following is a summary of highlights from the conversation:

Sara: **In light of the recent news of AT&T selling its roughly 10% stake in Hulu, what might be the impact on Hulu, if at all?**

Julie: Hulu consumers will not experience any change. It will consolidate ownership. **What we really need to understand is the streaming landscape in a world where new competitors enter the space.** We are working on understanding what drives people's decisions, what are the table stakes for getting a new service (will they add or replace), what are the tradeoffs consumers have to make? **The headline thus far is that most people would add.**

Sara: **Since WarnerMedia, as formerly part of Time Warner, offloaded Hulu to reduce debt loads and invest in their own streaming service, what are plans for WarnerMedia. Any streaming insights?**

Shelly: **For WarnerMedia, multiscreen viewing and downloadability is paramount to all streaming services**. People expect to watch on any screen, as well as be able to download the content. WarnerMedia is currently testing acute pain points for viewers: content discovery, home page search, being able to curate the screen so that it feels more personal. Estimated to launch by end of the fiscal year.

Sara: **When we talk about the future of TV, it's oftentimes talked about TV viewing in living rooms, something long-form and passive. But this is not the case for Snapchat, who has unique challenges by dealing with mobile and short-form.**

Ali: The way you interact with mobile is very different than with TV. For this reason, Snapchat is developing programming for the mobile video experience. We are working on unscripted mobile storytelling (3-5 minutes in length but with a beginning, middle, and end) to be produced by Snapchat and partners. This would be a complement to TV. Last year, **Snapchat's show, *Endless Summer*, had over 28 million unique viewers over the course of the season.** Snapchat had content produced by ESPN that had 60% of viewers coming back 3x a week to watch the content. **The key is concentrated storytelling optimized for mobile in a way that consumers are consuming content.**

Sara: **Roughly 17 million people tuned in to the season finale of Game of Thrones. Sara asked the panelist to walk us through what the future looks like for appointment TV.**

Shelly: **Netflix has had indelibly impact on how you view.** The more flexible the delivery, the better. Appointment viewing may not be airtime, but when you can get together, or when it's convenient to the viewer.

Julie: **The majority of Hulu's viewing happens in the living room through CTV**. There is still a significant amount of viewing on mobile, but not many watch Game of Thrones on mobile. There is a lot of co-viewing. However, the more devices that Hulu can get subscribers to view on – the more engagement, even if they primarily watch on TV sets. Mobile usage is growing on live content.

Sara: **In the advertising space – how do we make ads sexy?**

Julie: **Delivering an experience commensurate with the viewing experience is an important part of Hulu's strategy.** Ad load lower than TV load. Ad products that give choices to consumers drive engagement, effectiveness of the ad. Dynamically inserted into the stream, targeted towards the viewer. We have a stake in the ground that within three years, 50% of the revenue will be from non-interruptive ad format. Leverage user data to create ads that are commensurate with that: e.g., when viewers naturally pause – serve ads. Situational advertising (e.g., can tell when binge-watching occurs) – serve ads to reflect the viewing behavior.

Sara: Hulu has amazing products but one of the things it doesn't do is **augment reality. This is something that Snapchat shines with – you have pioneered the consumer adoption of augmented realty through advertising filters.**

Ali: **One team works on both the app and the ad consumer product which allows for a very consistent experience and you can start to train your users for action.** For example, the swipe up actually came from the Discover side of the app before it was introduced within advertising as a way to learn more about a specific product. We are very excited about how far we've come and our plans for the future for AR. A tangible example is Snapchat' app that when pointed at the Flatiron Building in NYC, you will see a dragon land on top of the building and turn it into ice. For the *Game of Thrones* premier, you pointed the app at the sky – you could see dragons flying through the app. Snapchat also recently launched a software (Lens) that would democratize the creation of ad or other products to optimize Snapchat experiences.

Sara: **How should we think about measurement going forward?**

Shelly: If the thing you are measuring is broken, is it worth it to rush to the end point? We need to be more focused on how we can reinvent the ad experience - so it's not bound by the rules of the 30 second spot. Cart before the horse situation. **Unless we get a suite of ad experiences that consumers love, will not skip, that people embrace – than the current ad measurement protocols won't apply.**

Sara: **We always thought about scale. But I think we are moving into a world where we're realizing it's not just about numbers, it's also about developing the deep relationship with the consumer. What should we look to measure to understand consumer relationships as opposed to just scale?**

Julie: **From the keynote this morning, scale and reach is super important and also targeting – but they work in different ways. At Hulu, we think about measurement as walking several different parallel paths**. One of them is really about audience and viewers because we have a tremendous amount of first-party data. There are some TV habits that have existed for decades that don't change in an on demand environment, including things like "I'm going to show up when the second episode is available" or the second the series is available and "I'm going to watch with my family". So we need to be able to measure that because that's the only way to really understand reach of our advertisers' part of a campaign. So we have to work with third party vendors to do that. We understand that it's important to be part of that ecosystem for our advertiser partners who want to be able to buy and transact in that way.

Ali: **How do you measure success? Embrace the concept of ecosystem – want more third-party to tackle this frontier. In five years, all advertisers will be performance advertisers** – innovation is happening on the performance side – not the branding side. Build next steps tools to optimize on the fly. Clean experiment, true incrementality, pure experimentation, ITT based method to run true experiments - treat that the same way as any other media.

Sara: **As researchers, what are you finding about the importance of diversity in building your products both from the advertising and content side? Since we are running out of time, in two sentences.**

Shelly: To me it's just a given. If you know you are looking to drive a scaled product out there, you want something that appeals to the critical mass.

Julie: Covering all kinds of people during research. Content that appeals to everyone.

Ali: Snapchat has a huge diverse base. Research based on the diverse population side.

Video:

Seeking a Framework for Measurement

Radha Subramanyam, Ph.D. – EVP, Chief Research and Analytics Officer, CBS Television Network
Interviewer: **Scott McDonald, Ph.D.** – President & CEO, ARF

There are a lot of companies putting out myriad measurement products but are they what CBS, and indeed the larger marketing ecosystem, want or need? Radha Subramanyam, Ph.D., EVP, Chief Research and Analytics Officer at CBS Television Network, lays out the latest thinking about measurement and research, as well as the relationship between traditional and big data approaches.

Media measurement is at a crossroads. Media measurement has historically focused on counting people and impressions; however, media measurement of the future will involve both counting + outcomes. Factors such as the long-term health of the brand and emotional reactions are important, too.

State of outcome measurement = state of attribution.

Current state of TV attribution:

CBS tested the same campaign for a major retailer with four different attribution vendors. Results varied wildly between vendors. Some variation is expected, but these result exceeded expectations. No consistent standards = no consistent outcomes.

Inconsistency begins with inputs. When even basic metrics (number of impressions, reach, ad spend, cost per store visit, etc.) are varied, there is more of a concern. When such variations are multiplied across the ecosystem, this variation becomes huge. **The influence of TV is undercounted as a result.**

Current state of TV measurement is a galaxy of metrics. Multiplicity of metrics makes everything overwhelming. Call to action: simplification. What would simplicity look like? **How many people watch my shows, my commercials across all devices?** Media industry critically needs to be able to answer this question. Don't give multiple dashboards to the C-Suite.

Total audience=Live TV + DVR + VOD + OOH + OTT + Digital are all needed to have accurate commercial audience measurement.

Philosophy for the future: Data comes in all sizes. There is a role for both small and big data, but they must work together. We need to get over the old debates that interfere with brand building.

Key takeaways:

- Consumer analytics have been historically diffused. **Pulling it all together requires both sides of the brain: art and science. All science, algorithms, dashboards are important.** But art is needed to make sense of the science.

- **Call to action to standardize attribution:**
    - Standardization of input metrics.
    - Methodology should reflect how TV is consumed.
    - ROI of TV across all platforms.

Discussion between Radha and Scott:

Radha: **Input metrics (ads served/ads delivered) must be owned by the media company, there is a need for transparency.**

Scott: Would it help to ask vendors to validate their methodologies against a truth set? Radha would support this call to action.

Scott: **Do you feel confident when speaking to C-suite that complex materials can be simplified into clear principles?**

Radha: Reach is important; it is one of the core principles critical to CBS's success. There is a need to rally around the concepts of input metric standardization, simplification of metrics for TV audience measurement and the analysis of TV ROI across all platforms. Fundamentally, this is about the future of media measurement. Elevate the conversation.

Scott: **Let's talk about the future. One proposal is George Ivie's duration-weighted viewable impressions for digital metrics approach. What do you think?** Regardless of the details, it is tangible.

Radha: It is 70 pages long. The denominator cannot be diluted. Bring sense to this. Length matters. Currency is between buyers and sellers. Standards must be rational.

Scott: Rick Weld's presentation is a model of the future, a Balkanized model with seven walled gardens with the same metrics, standards represent problems.

Radha: **Reach, LTV, targeting, addressable, etc. require rules**. **There is a world of attribution fallacies. Short term effect is not the same as long term.** There is a role for performance attribution models. But there is a need for standard data. Don't lose sight of the forest for the trees.

Video:

Can Data Privacy Be Good for Brands?

Dan Linton – Managing Director, Analytics, W2O Group

Data breaches and privacy scandals are bringing data protection into the awareness of consumers, and their anxiety is on the rise. However, at the same time, surveys indicate that transparent and responsible use of data –

use that actually benefits the customer - can and does build consumer loyalty. **Brands can take advantage of data privacy and protection to help drive their business, rather than having their ability to innovate restricted.** Linton stated that this presentation does not represent legal advice.

Privacy matters to consumers. Feelings of intrusion change behavior. However, the tech industry initially believed that consumers should not expect privacy, as demonstrated by quotes from tech leaders.

What's changed?

- GDPR (The General Data Protection Regulation) was adopted in a landslide vote, enforceable as of May 2018.

- Cambridge Analytica scandal, March 2018

- Many companies have suffered breaches, leaks, scandals, been required to pay fines or been subject to criminal investigations.

The risk of harm is real. A "Datapocalypse" is occurring.

- Activists, such as Alastair Mactaggart, and California legislators, took on Silicon Valley and won. California passed tough new privacy rules targeting Facebook, Google and other tech giants. This legislation is only the first of legislation by additional states.

- Consumer internet privacy bills, laws regulating data brokers, as well as the unauthorized sale of customer or de-identified data are taking hold in the US.

- EU data regulators are issuing fines and the ICO is undertaking enforcement actions.

- Even without a breach or privacy violation, the risk of harm is real. Sending inappropriate ads to consumers can cause physical and emotional harm through the misuse of data.

While chaotic times are ahead, W2O believes that the sky is not falling. Rather, data and privacy ethics are now a competitive differentiator for brands.

For brands, privacy is an opportunity.

- Marketers believe GDPR will increase transparency into customer data, which makes customers more at ease and builds trust.

- Marketing leaders can benefit from increased customer trust, more engaged customers, heightened awareness around data and security issues as well as an increased expectation for personalization.

Benefits beyond compliance:

- Enabling agility and innovation from appropriate data controls.
- Gaining competitive advantage.
- Achieving operational efficiency.
- Mitigating losses from data breaches.
- Reducing sales delays.
- Gaining appeal with investors.
- Increased engagement and relevancy.

Key takeaways:

- Embrace data protection and privacy now.

- Know what data you are collecting and invest in a privacy program.

- Be transparent to cultivate trust. Be clear with your audiences when you collect consumer data. Give consumers a clear and real choice in language they can understand.

- Focus on engaging customers and developing authentic relationships. Give people a reason to engage by providing interesting, relevant and useful content, better tools and services, creating experiences, adding value, entertainment and enlightenment.

- Innovate via contextual advertising, premium publishers, first party data, CRM programs, internet-based personalization, human-centric, privacy-first design, as well as artificial intelligence (AI) and machine learning (ML).

The ARF's CRO Paul Donato's interview with Dan Linton:

Paul: **Under the California Consumer Privacy Act is consumer privacy opt-in or opt-out?**
Dan: CCPA is still waiting actual regulations. CCPA is opt-in.

Paul: **The Privacy for America consortium, which includes the IAB, ANA, 4A's and NAI, plans to advocate for a Federal privacy law. Do you support one Federal regulation? Would it be modeled after the California legislation?**

Dan: Congress would have to agree to Federal legislation, which is not hopeful. It is more likely that a variety of legislation will be passed at the State level, probably modeled after GDPR. The best approach is for brands to take the most restrictive approach.

Paul: **GDPR compliancy?**
Dan: Big tech companies with headquarters in Ireland are getting hit with fines. Smaller companies are being impacted. Many US companies have not given the situation sufficient attention.

Paul: Can you respond to some of the questions that were raised during lunch?
Dan: **Whose data is it, anyway? Brands have traditionally felt that if they provided value for that data, they owed the data. Now, individuals feel they are loaning data and can have it back.**

Paul: **There are now startups that pay consumers for their data.**
Dan: These companies have not taken off.

Paul: **What happens over the next few years?**
Dan: By giving customers a fair value in exchange for data and respecting their privacy, relationships between brands and customers will increase, resulting in greater engagement.

In response to a question from the audience: Dan pointed out that **walled gardens are growing, which represents a problem for attribution vendors.**

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/MainStage/Can-Data-Privacy-Be-Good-for-Brands.pdf

Video: https://www.youtube.com/watch?v=DF46Kfdy1dU&feature=youtu.be

Presenting the ARF Code of Conduct

Paul Donato – Chief Research Officer, ARF

In response to the complexity of issues surrounding data ethics and advertising, the ARF has created a Code of Conduct that is intended to serve as a unique supply chain of trust for the research community. The issues impacting the industry include: "Who owns your data?" "How will GDPR and CCPA affect U.S. practices?" and "What are the merits of new laws vs. self-regulation?"

The ARF Code of Conduct, written in response to the situation arising from Cambridge Analytica having received the ARF David Ogilvy Award in 2017. The process involved a review board, a review of 57 different codes, a Town Hall and the drafting of the initial Code. The final Code was approved by the ARF Board of Directors in February 2019.

What makes the ARF Code different?

- Its focus is research not activation or targeting.
- Commitment requires research on understanding of the terms.
- Chain of Trust Principle.
- Includes automated and AI based research methods.
- Ease of Withdrawal of Consent.
- Notice that Cookie Deletion Invalidates Opt-out.
- Location Based Advertising Research.
- Monitor KPIs
- Annual Compliance Report

The ARF will look to enforce the code through a cooperative industry system titled the "Chain of Trust." The self-regulating program will enable members who commit to the values and principles of the code, within their research functions, to display an ARF code logo on correspondence and marketing materials. Additionally, through the "Chain of Trust," ARF members will agree to use suppliers, agencies and other adtech third parties who have also made commitments to the values expressed in the Code of Conduct, whenever possible.

How to apply: download the Code and submit the application (from the ARF website). Although it is voluntary, we hope all members will apply. The Code Logo shows that the company is Compliant. TVision is the first company to pass and be able to use the Logo.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/MainStage/Presenting-the-ARF-Code-of-Conduct.pdf

Video: https://www.youtube.com/watch?v=h0K5fwYf_VY&feature=youtu.be

Too Much Math, Too Little Meaning

Rishad Tobaccowala – Chief Growth Officer and Member of the Management Committee, Publicis Groupe
Interviewer: **Scott McDonald, Ph.D.** – President & CEO, ARF

It is challenging to gain insight in a world of data explosion. Mistakes occurring in leveraging big data are impacting advertising and marketing.

Rishad discussed his mathematical training. "I come not to bury Math". Math is important in an environment where truth is uncertain. He provided the following insights:

1. **Perspective**
   We are in the third connected era. WWW was first, along with search and e-commerce; the second was dominated by smart phones and social networks; AI, IoT, Voice and 5G will characterize the third era. As a result of 5G, which is coming in 2020, advertising will become more about experiences and services as opposed to messaging.

2. **Point of view**
   Wealth, empowerment occurred in the first and second eras; the third era has seen an erosion of trust.
   - Nothing is trusted. Lack of trust difficult for branding.

- Closeminded consumers.
- Difficult to test right and wrong.
- Rising inequality

3. **Provocation**

   It is not data that is missing, it is the culture, the willingness to change that is missing. Rishad warned companies, industries what was coming and he was not listened to. We need to figure out how to meet these challenges.

4. **Purpose**

   What are you doing this for? Truth is not enough.

5. **Poetry**

   How do you get people to feel more deeply? Poetry will take us from math to meaning.

6. **People**-Most important

   There are only two ways of enacting change with people: change their mindset or encourage them to move on.

Build a case for the opposite of what you believe, otherwise Rishad will not believe you.

Key takeaways:

- Advertising's ability to interrupt people will decline.
- Network OOH is the next big thing.
- Word-of-mouth will become critical to brand success.
- Marketing must provide personal experiences at scale.
- Privacy is important.
- Change the entire brand experience for the consumer.

Scott's interview with Rishad:

Scott: **Purpose has become the mantra of many companies. How do you see that playing out in the future of advertising right now?**

Rishad: The company's purpose is stated on the website, but many companies do not go further. ESG (environment, sustainability, governance) is spoken about by companies; however, purpose and authenticity are also necessary. Successful companies need to give back, for ex: Warby Parker, they don't just say it. It will become a differentiator. The former benefits of corporations no longer exist.

Scott: At CIMM 2018 (before Cambridge Analytica's actions were revealed) you said that the ability to interrupt people with advertising messages would decline in next 5-10 years. In the future, interruptive advertising will decline. Some alternatives have arisen, including brand purpose advertising, sports sponsorships. **What else do you see as an alternative to interruptive advertising?**

Rishad: Improving product or service, word-of-mouth. Find who is your best customer, find more customers like that. Network OOH is the next big thing. Colonizing of the eyes (11 hours in front of screens) is maxed out; Multitasking is much more reduced when someone's watching Netflix than someone watching regular, ad-based television because there's less reason to look away. Colonizing of the ears is the next frontier.

Scott: **What is your prognostication around 5G-autonomous vehicles leading to more available time for media consumption?**

Rishad: Autonomous vehicles is years away. People have good experiences in cars.
Alternatively, Google's virtual arcade has potential; 5G provides speed and consistency and is 35x faster than the alternatives currently available. It's also going to make advertising about utilities and services and not just about messages.

Rishad: **In conclusion, consumers are going to require personal experiences at scale. Privacy is very important. Marketers must change the entire experience.**

Video: https://www.youtube.com/watch?v=Q0MuBo20Mn0&feature=youtu.be

CONCURRENT SESSIONS – WINNING PAPERS & SOLUTIONS

TRACK 1: FUTURE OF MARKETING ALLOCATION & MEDIA PLANNING

Building Brands

Joanie Kwok – Director, Anheuser-Busch

Leslie Wood – CRO, Nielsen Catalina Solutions

Summary:

Consumer buying behavior should be used to inform a winning advertising strategy. Focus on getting buyers today, by connecting with both your loyal and heavy category buyers, as well as likely triers.

The goal of the 2018 study, *How to Build Brands*, was to develop practical advice for driving growth. 3½ years of data about 50 brands across 10 advertisers. Looking at correlations between measures: yearly penetration correlated to yearly sales.

Major findings:

- **Short-term penetration is much more highly correlated to sales.**

- For both category life stage and brand stage, there is a correlation between number of buyers to 4 week sales vs. yearly penetration to yearly sales.

- **Brand buyers have a much higher ad response. Advertising builds the brand promise which drives purchases today and sales into the future. Focus on now to build your brand's sales today and tomorrow.**

An example of these findings were presented in an Anheuser-Busch brand campaign case study.

What does this mean to advertisers?

- **Focus** on getting buyers today– it's the most effective way to impact sales now and in the future.

- **Connect** with your loyal and heavy category buyers- they will respond to your advertising.

- **Expand** but to Likely Triers not non-buyers and not at the expense of your current buyers. Don't disenfranchise your current buyers when looking for future buyers.

Key takeaways:

- **Penetration** is not as strong a directive as driving more buyers – every week, from every source.

- **Acquisition** is the hardest job for advertising to do – and requires creative and targeting be aligned to the task.

- **Building brand equity**, **brand loyalty** and **repeat purchases** is the natural job of advertising and builds both the highest sales short term, but also long term sales.

- **Advertising builds the brand promise which drives purchases today and sales into the future.**

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Building-Brands.pdf

Old + New: The Importance of Foundational Media Planning Principles for Ads in Stories

Deven Patel – Head of Ad Research, Snap Inc.

Summary:

The guidelines for foundational effective media planning principles, such as frequency, are relevant for new digital ad formats.

Repetition is vital in advertising. The frequency of ads plays a role in developing customer curiosity, recognition and decision making, and repetition psychologically impacts these three levels of exposure.

The level of repetition required varies. **According to foundational media planning principles, more repetition is required** when there is:
- Low brand share or frequent usage (market factors).
- Pulse advertising or high clutter (media factors).
- Complex message or new campaign (message factors).

What is the role of ad frequency for Snap ads in Stories? (A collection of snaps in Snapchat is called a Story). Content creation and sharing is important in Snapchat. Ads appear between these Stories.

- In order to answer this question, Snap studied the impact of frequency on brand metrics. 103 Snap ad campaigns with brand resonance were studied, most were CPG and entertainment ads with campaign lengths of 1-12 weeks during April 2017-May 2018. 75% US data.

- The model:
  o Model dose-response relationship for weekly ad exposure threshold.
  o Random effects meta-analysis to pool estimate overall trend and account for study heterogeneity.

Findings:
- Ad awareness depends on frequency.

- Ad awareness depends on schedule length. **Lo**nger campaigns require a frequency of 1x a week; shorter campaigns needed a higher frequency of 2x a week.

- No evidence of differences in ad awareness by advertiser vertical.

- Strong evidence of differences in action intent by advertiser vertical.

Planning principles for frequency in Stories matter. Multiple factors should be considered for effective frequency when advertising in Stories. **More repetition is required for**:

- Low brand share or frequent usage (market factors).

- Sole media channel or high audience attention (media factors).

- Complex message or new campaign (message factors).

Key takeaways:
- Marketing tools have evolved; basic foundation media planning principles have not changed.

- Frequency planning and activation for ads in Stories can help maximize campaign impact.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Old+New.pdf

The Future of Audience-Based Buying

Carol Hinnant – EVP, National Television Sales, comScore

Jeff Boehme – SVP, TV Research, comScore [replacement speaker for **Dominick Vangeli** – VP, Advanced Advertising Products & Client Solutions, NBCU]

Summary:

Audience-based buying of television audiences using highly targeted segments has potential for greater profitability.

Adoption of audience-based buying was limited because as an industry, we have not made this process as easy, transparent and consistent as traditional guarantees. However, the demand for targeting custom audiences within the premium context of TV continues to expand. The process started a while ago, but data sets are now available as opposed to the 1990's, when there were limited data sets for examination.

NBCU is a member of OpenAP, a consortium of companies focused on standardizing and simplifying the purchase of commercials based on specifically targeted audiences rather than broader demographic ratings based on age and gender. comScore has been championing this approach.

OpenAP will provide greater adoption of advanced audience targeting. It allows marketers to identify and create custom audience segments and buy national television campaigns across each company's portfolio. It introduces a standardization of these custom segments and transparent positioning across publishers. Allows deals to be done based on the custom segments.

Benefits of OpenAP for agencies and advertisers:
- Available at no charge.
- Allows a sneak speak at comScore's product related to this process.
- Provides consistent cross-publisher definitions.
- There is secure segment sharing and management.

Key takeaways:
- OpenAP merges research and data science.
- Enables creating of new custom audience segments. These new audiences and the related metrics can be examined, with the potential of greater profits.
- Important characteristics include transparency, profitability, and ability to activate on it.

Presentation not available.

From Proxy-Based Optimization to People-Based Optimization

Ken Archer – VP of Product, Survata

Summary:
Measurement and optimization have historically existed in silos in brand campaigns, but there is a need to unify them. We have not been able optimize against brand lift. This is a challenge because we're asking brands to spend a lot of money on digital platforms for their campaigns. We are not leveraging the promise of digital.

A new way approach to optimize brand campaigns is to move from proxy-based optimization to people-based optimization.

Proxy-based optimization has a number of challenges:
- Brand campaigns are optimized against viewability, CPM, reach but not outcomes.

- The lack of outcomes-based optimization is a problem when generally 1-5% of the campaign target audience is impacted by a brand's campaign. This means that much of the budget is allocated insufficiently.

In order to move to people-based optimization:
- Report brand lift person-by-person, rather than on the campaign level.

- Move from multiple KPIs to a single metric.

- Use brand KPIs to create brand funnel impact by person.

Key takeaway:

- Auto-optimizing brand campaigns against outcomes can be achieved.

- Campaigns should target the persuadables, who are the individuals with the highest brand funnel impact. This can be achieved via: lots of data, high data accuracy and causal AI.

- Tactics must be refined on a continuous basis.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/From%20Proxy-Based%20Optimization.pdf

Cross-Platform Insights Every Influencer Will Cite This Year

Marissa McArdle - VP, Digital Product Leadership, Nielsen

Summary:
How advertisers and agencies use insights from cross-platform ad measurement to optimize how they connect with consumers.

What's happening in the market?

- **Consumer privacy issues.** There are now challenges due to restricted access to cookies and legislation on data collection/storage. Future-proofing is needed.

- **The bar on audience measurement is being raised.** There is a demand for more sophisticated and granular measurement. Quality and transparency are critical investments.

- **Growing CTV impressions.** 182% YoY increase in CTV impressions served in 2018. This reflects a doubling down on connected devices by consumers.

- **Cross-platform monetization is sought.** Comparable cross-platform measurement is critical across all screens.

There is a critical need to bridge the measurement gap between TV and digital ad campaigns in terms of age/gender demographics and campaign reach/frequency/GRPs across TV, computer and mobile. Nielsen's ratings suite provides what the market is seeking: a connection between content and ads with a flexible suite of solutions.

CTV must fit into the audience measurement landscape and success must be evaluated using person level measurement to account for all the viewers in front of the screen. This is the only way to understand which impressions were delivered the most successfully.

CTV ownership and use:

- CTV device ownership and use is vast and growing. Smart TVs are growing the fastest. The majority of owners are users, whether on CTV devices, Smart TVs, game consoles or Internet-connected devices.

- Americans use CTV devices nearly 10 billion hours per month and the average CTV device users spends 45 hours a month using these devices.

Digital drives incremental reach. Digital provides an incremental reach of 16% to P18-49 campaigns.

TV delivers nearly 8x more impressions than digital for ad campaigns targeting 18-46 year olds.

- Young viewers are more likely to connect with digital ads within a cross-platform campaign.

- Connected TV drives reach extension among P18-49 for cross-platform campaigns.

Key takeaways:

- Data is in the market today **-** insights demonstrate **influence of TV + power of digital and connected devices in driving incremental reach.**

- Bridging the gap between TV and digital - new platforms being added.

- Nielsen's focus in 2019 is leading the charge - driving further advancements towards cross-media currency.

Presentation not available.

Track 1: Are You on Track: Fine-Tuning Attribution

A Practitioner's Introduction to Attribution

Mericcan Usta – Sr. Data Scientist, GroupM

Summary:
Measuring what matters the right way, and at scale, will be vital to the success of attribution.

A working definition of attribution:
- Isolate effects of media
- Optimize adspend mix

Legacy models are top-down. Marketing mix modeling finds the impact of different marketing programs on a goal and relates aggregate media spend to aggregate sales.

A paradigm shift has occurred:
- Promise of a universal single-source media panel.
- Promise of a universal single-source panel.
- **The customer journey is the new currency.**

The current models are bottom-up. Multi-touch attribution finds the impact of user-level events (impressions, clicks) on a goal, and includes finding the critical media that keeps the incremental journeys in the funnel. Bottom-up models involve rule-based methods that rely on business judgement and technical simplicity; however, statistics-based methods use data and are about marginal value.

Does new media imply new models?
"Old media" is amenable to journeys; however, "new media" is reported in the aggregate.

Findings from the *Journal of Advertising Research:*

- **Heuristics are good, but some are too simple.**

- **"Last click" model favors paid search,** but consumers typically search multiple times before making a purchase.

- **Rule-based attribution models do not fully value social media or email**, which often don't directly lead to purchase but can have strong behavioral impact.

- **Statistics-based model provides more stable attributions**.

The Shapley Value Concept was discussed, but this is difficult to achieve. There is also the challenge of scalability to resolve.

Key takeaways:

- Isolate effects of media.

- Digital promises customer journey.

- Newest attribution models attempt marginal contribution.

- Approximations make it scalable.

- Caveats include the fact that attribution does not deal with customers who have not interacted with the brand, there is a need to find a baseline of people who have interacted with the brand and not converted and the challenge of fraud.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/A-Practitioners-Introduction-2-Attribution04112019.pdf

Online to Offline

Sara Grimaldi – Sr. Director, Measurement & Insights, Fullscreen Media

Summary:
A cutting-edge sales lift methodology was developed to measure the impact of social campaigns on sales.

Social marketing is complicated.

- It involves a complex multiplatform social ecosystem.

- Social measurement is fraught with challenges due to walled gardens, data and vendor overload and the need to determine the real value of social metrics.

- The direct link has been missing in terms of social branded content, engaged fans and increased sales.

- Different types of engagements.

In order to overcome these challenges, Fullscreen piloted a cutting-edge sales lift methodology, along with data from partners, Shareablee and IRI. The categories of beauty, food and beverage were examined. The methodology linked offline and online identity and social behavior to identify an unique audience of 50M matched households. The study connected media exposure with in-store sales for these households.

Findings: (actual impact varied depending on the product category)

- Social campaigns drive sales lift.

- Social campaigns broke through and provided brand lift.

- The quantity of social engagements matter.

- Social engagers are even more valuable.

- Focused platform strategies achieve higher lift, with Instagram showing higher lift vs. all social platforms for all 3 CPG campaigns, especially for beauty brands.

Key takeaways reveal how to optimize sales using social marketing:

- Utilize top-tier influencers with sizable, engaged and passionate fan bases to achieve greater sales lift.

- Broaden reach by leveraging influencers with different audiences, passions, and tones.

- Leverage both organic distribution and paid media that is optimized by engagements.

- Identify whitespace opportunities supported by audience insights where a brand can break through clutter. Identify opportunities.

- Utilize specific calls to actions.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/OnlineToOffline.pdf

Attribution and Identity: A Codependent Relationship

Michael Finnerty – Group Director, Product, Neustar
Robert Stratton, Ph.D. – Senior Group Director, Neustar

Summary:
Stitching data together is hard to do at scale, and it is challenging to present one view of your customer. Using an identity graph enables researchers to resolve this situation.

Constructing an unbiased identity graph is paramount to the integrity of attribution and marketing investment decisions. **Biases distort all media events to conversion models and leads significant distortions in the correlation between who saw the ad and conversion (purchase).**

- Specifically, the extent and direction of measurement errors differ based on the error or bias in the identity graphs. **Therefore, it is critical that marketers implement a measurement solution that is based on a complete and accurate identity graph. That solution should be capable of connecting and consolidating the different identities seen and correcting and controlling for any remaining biases or errors.**

Big data's identity crisis:

- Identity fragmentation poses an increasing threat to the promise of big data in marketing analytics.

- Identity graphs join together observations from separate ID spaces such that the inputs and outputs from the correct individual or household can be associated for analysis.

- This analysis demonstrates the impact of reflecting real-world identity graph biases on analytical accuracy, specifically marketing attribution.

Study Design:
The presenters conducted a series of sensitivity analyses on a logistic regression operation designed to assess the impact of the media channel exposures on purchase behavior. The data was based on observations for two separate media channels and a purchase event were drawn from three different synthetic domains and connected by a synthetic Identity graph.

Simulated bias in the identity graph:

- **Sparsity** – incomplete connections between domains.

- **Media channel graphs** - graphs that are connected by the input variable.

- **First-party only graphs** – graphs that are connected by the output variable.

- **Inaccuracy** – wrongly wired connections between entities across the domains.

The degree and direction of bias in attribution calculations varies substantially across the different simulated scenarios: sparse graph, first party graph, media channel graph and inaccurate graph.

When choosing attribution solutions, clients often focus on the analytical methodology used to calculate the effectiveness of different media. **This study shows that errors or biases in identity graphs have a very substantial impact on the quality of marketing measurement, budget allocation, and attribution. Selecting an unbiased identity graph is fundamental in calculating accurate attribution as well as media and marketing incrementality.**

- The study shows that using media channel graphs results in an overestimation of base and an inconsistent estimation of media.

- Using sparse graphs leads to overestimation of the base and inconsistent estimation of media.

- Using a first-party graph may result in an underestimation of the base and overestimation of media.

- Using an inaccurate graph may result in an underestimation of the base and overestimation of media.

Key takeaways:

- Biases in the underlying identity graphs used for marketing analytics introduce systemic inaccuracies into the downstream analytics. Eliminating the biases is critical so that it is possible to see the direct relationship between media and the purchase conversions.

- These impacts are particular problematic to control for because the type of bias and true level of inaccuracy is seldom known.

- The four types of real-world biases studied systematically skew analytical results in predictable directions and introduce bias in attribution results.

- This analysis can inform the relative direction of bias introduced by the particular type of Identity Graph used.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Attribution-and-Identity-A%20Codependent%20Relationship.pdf

TRACK 2: ATTENTION, PLEASE!

Exploring the Multiple Dimensions of Attention

Claire Charron – Research Manager, Market Insights, Google
Duane Varan, Ph.D. – CEO, MediaScience

Claire Charron, Research Manager of Marketing Insights at Google, and Duane Varan, Ph.D., CEO of MediaScience, presented research findings on how we can best define and measure attention.

- **Google and MediaScience conducted a pilot test in the U.S. to understand measurement solutions for attention that can be used to improve ad effectiveness**.

  o **Phase 1:** literature reviews lead by Ehrenberg-Bass Institute on attention framework, attention signatures, self-report measures. Attention is researched often, but there are a lot of blind spots with little literature dealing with inattention.

  o **Phase 2:** stimuli selection (inattention, passive attention, and active attention). Three trained judges coded 107 videos using attention coding instrument.

  o **Phase 3: lab test** - 11 different attention measures from the lit review, applied to stimuli to understand how we can best measure attention.

- **Key finding: Attention is measurable as the absence of the "inattention" state.** Within attention, the dimensions are more nuanced, and the best measures may depend on type of video and/or campaign objective:

  o **Inattention is consistently classified**.

  o **Blink duration and fixations per second had the highest accuracy scores the test clips, followed by Tonic EEG Alpha and Phasic Heart Rate**. Looked at eye on screen as a measure but since it was a lab test with task, not much variance in this measure.

- o **There is a lack of significant correlations between measures, indicating each is contributing something different**. There's not much overlap between the measures.
- o **Each measure peaks at different moments within videos, indicating that each is capturing a different type of attention**. E.g., smiling is a good attention measure for funny videos. The researchers thought smiling would be a sign of active attention, but viewers smiled during 75% of their passive videos. Laughing identified active videos, if they were funny.
- o **Think about the campaign objective, to select the measure to identify the active types of attention.** To identify attention at scale – it's identifying inattention and seeing if the absence of inattention indicates attention.
- **Next steps:** identify if promising measures of attention from pilot study hold true for ads; confirm best-available measures for each dimension of attention to advertising. Roadmap for future research include: testing for context, the device, and other variables that can influence attention.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Exploring the Multiple Dimensions of Attention_ARF.pdf

Why Video Advertising Works and How it Works

**Guido Modenbach** – Managing Director, SevenOne Media
Gerald Neumueller – Director of Research, SevenOne Media

Guido Modenbach, Managing Director of SevenOne Media, and Gerald Neumueller, Director of Research at SevenOne Media, shared findings from their in-home study to understand the underlying mechanisms of viewer engagement with content and advertising.

- Research shows that commercials on TV are particularly effective compared to other video formats. **The researchers wanted to test whether different states of perception influence engagement and attention when content and ads are watched on different platforms.** The results explain differences of ad effectiveness on lean-back and lean-forward platforms.
- **Study design:** The study took place in the homes of 100 test participants. Each session took 180 min with 90 min with media (TV, BVOD, YouTube, Facebook, Editorial content and advertising). Biometric measures were taken: visual attention with eye-tracking, activation (Skin Conduction Response), Emotion (Electromyography). Post-survey: participants sked about advertising remembered.

Key findings and implications:

- **Viewers are engaged differently depending on platform and content type (editorial or advertising).**

Activation gap between content and advertising differs strongly by platform
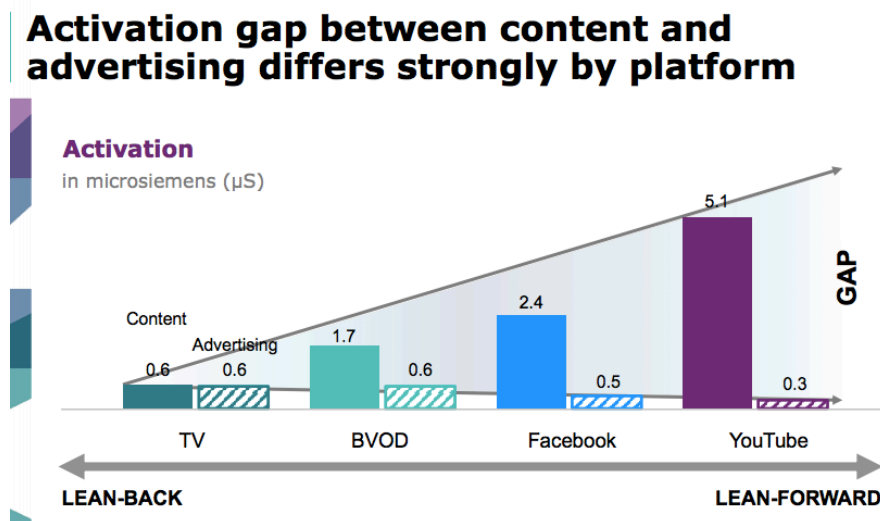
- **Lean-back:** viewers are relaxed on a low level of involvement. Engagement levels are very close for content and ads.

- **Lean-forward:** content is perceived at high levels of activation, emotion and attention. **Advertising doesn't benefit from this, as engagement drops massively when ads start.**

- **Impact is higher when the perception gap between content and ads is small:**
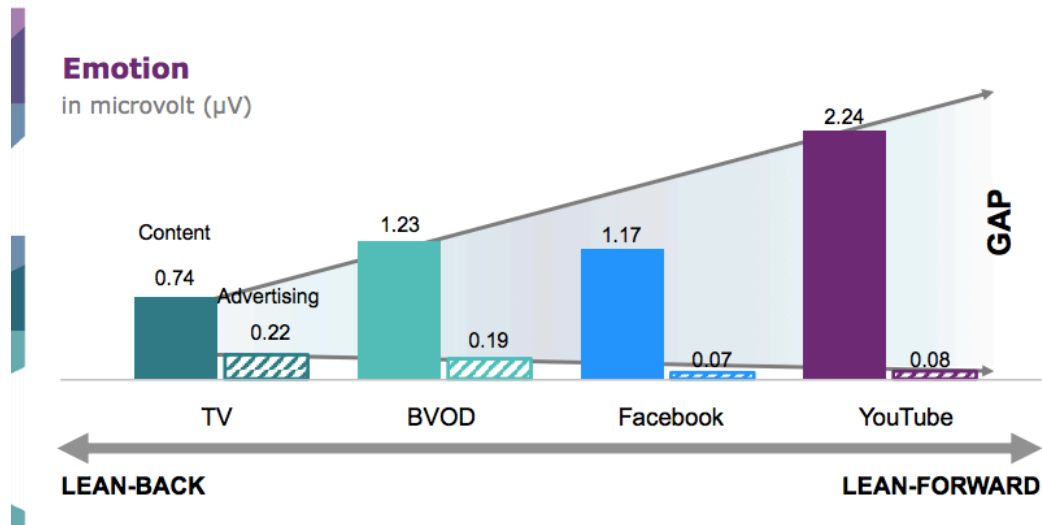
- **Visual attention is not necessarily the key factor to fully explain ad impact.**

- **Advertising must be adjusted to the specific perception situation by closing the perception gap** and thus improve effectiveness.

- **TV as a pure lean-back and low-involvement medium supports the average ad.**

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Why Video Advertising Works and How it Works.pdf

Quality Attention

Adam Heimlich – President, Parsec Media
Erik Nylen – Head of Data Science, Parsec Media

Erik Nylen, Head of Data Science at Parsec Media, provided an overview of Parsec's attention prediction tool.

- Parsec's aim is to understand the different components of attention, especially in terms of time.

- They ingest numerous data points on how consumers interact with an ad, and based on these historical observances of attention, predict future behaviors of attention.

- Ways to use this tool to optimize media plans include identifying minimum frequency threshold as well who to retarget. Traditional frequency and viewability targeting approaches do not take into account attention.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Quality Attention.pdf
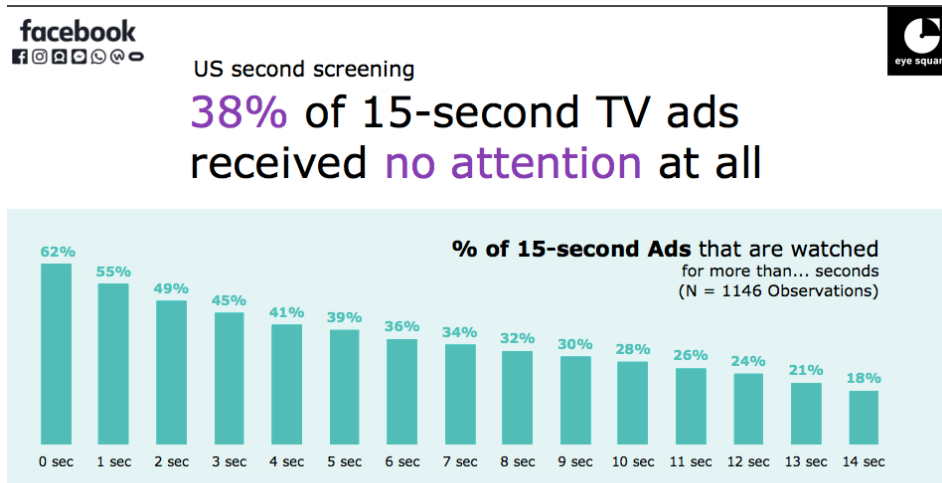
Multi-Screening Around the World

Stephen Gray – Consumer Researcher, Facebook
Susann Szukalski – Senior Research Consultant, eye square GmbH
Study reveals attention distribution across different media devices while watching TV.

Susann Szukalski, Senior Research Consultant at eye square GmbH, and Stephen Gray, Consumer Researcher at Facebook, presented their findings from a global media ethnographic study on multi-screening behavior.

- **Facebook commissioned eye square to conduct an in-home eye- and device-tracking study across six countries** (Brazil, France, Germany, Indonesia, the United Kingdom and the United States). A total of 763 self-reported Facebook users and TV viewers, age 18+, were observed. Attention was measured by visual attention (i.e., eyes on screen), which was tracked by non-invasive pair of glasses worn by the respondents.

- **On average, during an evening in front of the TV, people also looked at their smartphones 31% of the time.** This held true across markets; however, there were some variances among countries. For example, in Indonesia, viewers looked at their smartphone almost 50% of the time, and in Germany, the viewers looked at the smartphone less than 30% of the time.

- **During TV ads, 55% of participants used their smartphones vs. 28% during TV shows.**

Source: "Attention study" by eye square, **Jan 2018.**
Facebook-commissioned passive eye-and device-tracking study and survey of 127 participants aged 18+ in the US. All participants reported they were Facebook users and TV viewers.

- **When viewers diverted their attention from TV to their smartphones, the top two app categories ranked by time spent, on average, were social (43%) and messaging (16%) apps**. On average across the six countries, the top mobile apps viewed were: Facebook, WhatsApp, Browser, Instagram, YouTube.

- **What this means for marketers**: focus on attention and use mobile ads to reinforce your TV ads to extend reach.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Multi-Screening Around the World.pdf

Impact of Ad Length on Advertisement Viewership Combining

Srikanth Ayithy – Manager, Data Insights, Team BARC, Magic9 Media & Analytics Pvt Ltd India
Praveen Tripathi – Founder & CEO, Magic9 Media & Analytics Pvt Ltd India

Srikanth Ayithy, Manager of Data Insights at Magic9, and Praveen Tripathi, Founder & CEO of Magic9, shared their findings from their research with BARC (Broadcast Audience Research Council) India on the impact of ad length on ad viewership.

- **Some creative ideas need longer time for a comprehensive communication, but higher lengths of and ad increases the risk of ad avoidance**. **To find the right balance, the Magic9 built a model to explain ad viewership using descriptive statistics to understand the variables.** Data points included the ratings of all of the ads and values of all potential independent variables (including ad length, avg. ratings of the program, loyalty of the program, number of ads in commercial pod, ad position in the pod) for 500+ channels across 91 days (11/3/18 – 2/1/19). They excluded ads with 0 ratings, and ads that aired within programs with 0 ratings. **Ultimately, 5 million+ ads were analyzed.**

Key findings:

- **Program viewership is the single most important determinant of ad viewership.**

- **Keeping all variables constant, ad length does have an impact on ad viewership.**

- **Loyalty for the program is next important after program viewership.** This has significant implications for media planning.

- Interaction between program ratings and program loyalty has added explanatory power for ad ratings model.

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Impact of Ad Length on Ad Viewership_ARF_AudienceXScience 2019.pdf

Brand Purpose and Cinema

Catherine Moger Rickwood – VP, North America, MESH
Jennifer Friedlander – Director, Custom & Marketing Research, ScreenVision
Doug Pulick – SVP, Strategic Insights & Analytics, NCM

Catherine Moger Rickwood, VP of North America at MESH, Jennifer Friedlander, Director of Custom & Marketing Reseaerch at ScreenVision, and Doug Pulick, SVP of Strategic Insights & Analytics at NCM, shared their insights on brand purpose and cinema in the context of other touchpoints.

- **People are immersed in a variety of stimulus making create meaning and impactful experiences a real challenge to brands.** Although marketers would hope otherwise, **many brand encounters are neutral: 35% on paid, 24% on owned, 22% on earned.** It's hard to engage and really connect. Brands really need to stand for more than just selling.

- **MESH conducted a global study to better understand which experiences are most effective at cutting through with a meaningful message**. The study recruited people to track experiences through a diary. For about a week, they would tell about their brand experience - any brand experiences. In total, there were 4,459 experiences across four different countries across five categories (Auto, Electronics, FMCG, Services, Finance).

- **Key findings: Paid touchpoints are less engaging and persuasive than owned and earned, but paid touchpoints could be the first step to reach earned and owned touchpoints**. Owned and Earned are including WOM, consumption – which are very engaging. Brands can directly influence paid touchpoints to get a better result. Only 1/3 of social media experiences are ad from brand.

- **Role of TV: Exposure x Attention:** people are 25% more likely to be exposed to a brand's content on TV than online. And 66% are more likely to be exposed to brand content on TV than OOH. TV is great for broad reach. But in 43% of the cases, attention was shared with other activity. Getting the exposure, but not necessarily the attention.

- **The role of online: instigating online research.** In 36% of the cases, people were actively searching the brand/service. However, 77% from people who had an online experience, didn't buy anything (short-term purchase window).

- **Cinema cuts through the neutrality.** A very positive experience makes you five times more likely to consider; positivity and emotional engagement are very important. This impact was especially noticeable among the young audience (18-24 year olds): 41% of their experience being very positive.
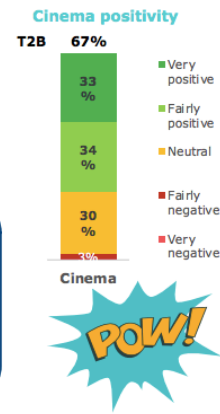
- **Cinema Works even better when combined with TV: 2x more likely to consider the brand (vs. Cinema or TV alone).**

  The brands with the most positive experiences tend to also create persuasive ones. In an environment where most experiences make no difference in purchase intention, creating the right experience could determine the success of the marketing mix.

- **ScreenVision conducted a study to compare the cinema experience and TV.** Study design: tested four brands; took lab equipment into the theater environment; measured physical responses (eyes on screen, heart rate, electro dermal reads).

- **Key findings:**
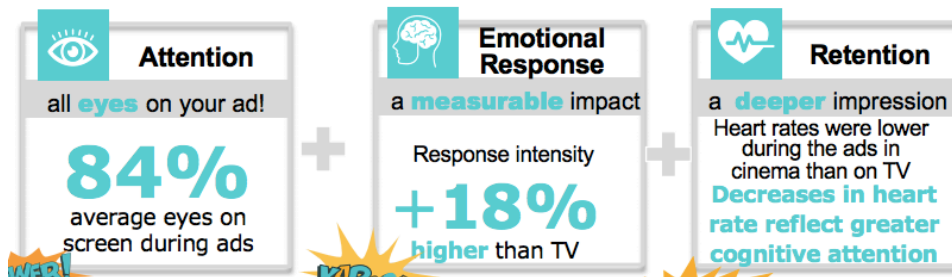
  o **Moviegoers are over 2x more likely to be engaged with the cinema experience than TV.** Just about all respondents said the ENTIRE cinema experience is more memorable than TV and that it stays with them.

  o **Cinema experiences are more likely to generate emotional reactions:** cinema creates 1.5x more sense of comfort than TV and makes people feel 2.5x more connected than TV.

  o **Cinema goers remember more from an ad and use more words to describe an ad:** on average, across all brands, cinema had 19 words, TV 16 words,

- **Implications:**

  o **If brands want to communicate their purpose, more complex messages and have deeper resonance, cinema give a unique opportunity.**

  o **Whatever the frequency provided, other media may never achieve this.**

  o **Putting cinema on the media schedule can supercharge the impact of all media for brands.**

Presentation:

Does Highly-Awarded Audio Creative Sell?

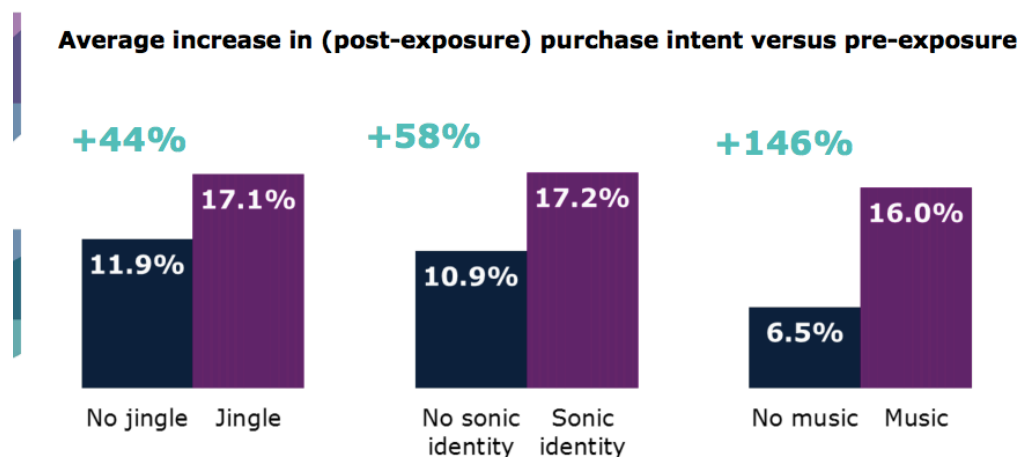**Pierre Bouvard** – Chief Insights Officer, Cumulus Media⎮Westwood One
Scott Simonelli – Co-Founder & CEO, Veritonic
Chris Smith – Writer and Brand Creative Group Head, The Richards Group

Pierre Bouvard, Chief Insights Officer at Cumulus Media⎮Westwood One, Scott Simonelli, Co-Founder & CEO of Veritonic, and Chris Smith, Writer and Brand Creative Group Head at The Richards Group, shared research insights and best practices about audio creatives.

- **To investigate whether creative and effectiveness go together in the audio space, Veritonic evaluated U.S. focused audio ads from the most prestigious advertising and creative excellence awards.** This was the largest audio creative test ever conducted. Veritonic collected data from a census-representative sample of 6,0003 U.S. adults. Each audio ad was listened by an average of 335 panelists.

- **Key findings: Good creative sells. Award show Am/FM radio ads improve purchase intent by +7 points.**

Music, sonic identities, and jingles made significant difference in purchase intent

Average increase in (post-exposure) purchase intent versus pre-exposure

+44% No jingle 11.9% Jingle 17.1%
+58% No sonic identity 10.9% Sonic identity 17.2%
+146% No music 6.5% Music 16.0%

- o **Female voices are underrepresented and great opportunity**. There were very few ads utilizing female voiceover (male voiceover -70%). Female voiceovers test as well or even slightly better as male narrators.

- o **Serious messaging has a 75% higher purchase intent.** Serious spots had a higher average impact on purchase intent than humorous spots. One conclusion is that humor may be risky.

- o **Ads with disclaimers can win awards too and drive purchase intent**. But it is rare to hear an award winning ad with a disclaimer. Handled properly, disclaimers are not an impediment to the creative.

  - o

- **What make an effective spot award-winning?** Chris Smith discussed best practices for audio creatives, learned from award winning spots.

  - o **Be single-minded: say one thing**. Examples: Snickers' "Credit Card Reader," Volkswagen of South Africa's "Stalker" - break assist spot; Quikrete's "Church" spot for "a fast driving concrete".

  - o **Radio is not a hotel: you don't have to fill all the space.** Example: Quebec Marijuana Safety's "Reaction Time."

  - o **Be relatable not "likeable"**. Example: Mountain Dew's "Poor Parched Mouth".

- o **Create an expectation, then deliver on it with a surprise every single time.** Examples: Dos Equis' "Adios Amigo" (with a disclaimer), Motel 6's "Millennials."

- o **Turn limitations into creative inspiration.** Example: Perth Opera's "copyright infringement".

- o **"Serious" doesn't mean boring or un-creative**. Example: CVS's "Proper Order."

- o One spot that follows the rules and breaks them at the same time: Euro Pride's "Transition"

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Does Highly-Awarded Audio V2.pdf

Utilizing Artificial Neural Networks

Beth Egan – Associate Professor, Advertising, Syracuse University

Beth Egan, Associate Professor of Advertising at Syracuse University, discussed utilizing artificial neural networks (ANN) for effective ad curation and maximizing audiences during TV breaks.

Background:

- Based on data collected via Nielsen's All-minute Respondent Level Data, **Live TV ratings have declined by about 25% since 2013**. That equates to potential losses of billions of dollars to the television networks.

- There are shifts in viewership amongst the younger demos. **While the highest amount of time spent with media (42%) still occurs on live and time-shifted TV, that is driven by the 50+ demographic.** Millennials spend only one-quarter of their media day with Linear TV.

- **Ad avoidance is not new behavior**. People always sought to avoid ads, in the following ways: cognitive (when audiences divert their attention from content, e.g., second screen viewing); behavioral (when audiences physically avoid content, e.g., leaving the room); mechanical (when audiences switch channels).

- **Characteristics of ad avoiders were fairly consistent:** male, higher education, higher socio-economic status, younger.

- **Technology has further enabled ad avoidance over the years**: 55% of US homes has DVRs; one in five have ad blocking; ~80MM with Netflix, ~60MM with Amazon Prime Video.

- **What we know about ad avoiding behavior:** There is more switching at the top and the bottom of the hours., viewing is highest for the first and last commercial in the break.

- **To better understand ad avoidance behavior and identify strategies to maximize viewer retention during ad breaks, the following studies were undertaken.**

Study #1: Are there factors that will lead to predictability of audience drop-off during commercial breaks?

- **The study applied ANN analysis to comScore's TV Essential data to identify key attributes and patterns that optimally predict commercial viewership.** ANN allows for non-linear computational units, the application of learning algorithms, relevant problem-specific information with weights for connections among processing elements.

- The researchers chose to study the ***Big Bang Theory*** since it is a highly-rated program, and it is harder to find effects on smaller-rated programs. Data points included: second x second live TV viewing data, program & ad rating. Time period: 9/1/2016 to 2/28/2018.

- Results: **The number of ads in a pod and program originality had high importance in maintaining viewership. The ad position and shorter ad duration also predicted ad viewing.** The ANN was successful in predicting the audience retention of >99.8% at an 80% level of predictability.

Study #2: Is there a link between comedy program genre and retention of audiences for comedic advertising?

- **The second study explored the possible link between context and congruence**, and utilized a similar approach as in the first study. But in this case, they looked at **Geico** ads running across **CNN, TNT**, and **TBS** – representing news, drama, and comedy, respectively.

- Results: **There are differences in mean comparison when comedic ad (Geico) airs in a comedy program. There is lower audience decline in a comedy program vs. a news or drama program.** ANN analysis yielded a 75% level of predictability of audience retention at 99.8% level. While lower than the previous 80% level of predictability, it is still in a range that show potential for further explanation.

Study #3: Is there a general link between program and ad genre?

- This study used a similar approach but looked at **Discover** and **Allstate** ads running across **CNN**, **TNT**, and **TBS** networks.

- Results: **Drama program genre had a lower ad avoidance level; however, these were not statistically significant results.** Drama program had a lower ad viewing drop compared to drama and news, but again this was not statistically significant. **There was no predictive factors found for program and ad data that attainted 80% level of predictability.**

Recommended ad curation strategies:

1. Reduce the number of commercials in the pod.
2. Favor original programming over repeats (in terms of both mix and cost).
3. Pay the premium for a higher proportion of first and last pod position.
4. Contextualize ads in congruent programs an ad genre.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/Utilizing%20Artifical%20Neural%20Networks%20V2.pdf

TRACK 3: AUDIENCE MEASUREMENT UNBOUND

Circle of Influence: The Keys to Success in Influencer Marketing

Ryan Detert – CEO, Influential
Mariana Torres-Lastra – Consultant, Media Center of Excellence, IRI
Joanna Von Felkerzam – SVP, Global Director Analytics, Spark Foundry Worldwide

Ryan Detert, CEO of Influential, Mariana Torres-Lastra, Consultant of Media Center of Excellence at IRI, and Joanna Von Felkerzam, SVP of Global Director Analytics at Spark Foundry Worldwide discussed the role of AI and the ways in which brands are successfully using influencer marketing to increase sales lift.

An influencer is "a person with the ability to influence potential buyers of a product or service by promoting or recommending the items on social media". An emotive ad unit is an individual speaking on behalf of a brand that makes the audience laugh, cry or be inspired.

There are 4 types of influencers:

- **Nano-Influencers**: Somebody with fewer than 1,000 followers who has an immense influence with a comparatively narrow market. Example: a person with the most credibility in a particular neighborhood.

- **Micro-Influencers**: Someone who has between 1,000 and 100,000 followers.

- **Macro-Influencers**: Influencers with between 100,000 and 1 million influencers.

- **Mega-Influencers**: Social superstars with more than 1 million followers. These are often celebrities because of fame they gained in the "real world".

Top 2019 influencer marketing trends: **Past Learnings and future strategy:**

- The evolution of influencer marketing from 2013, when global spend on influencer marketing was $500M, to global spending of $8B in 2019 and still rapidly growing.

- The stages of this evolution: the Talent Model (curating the right look), the Data Model (tailoring the right audience), the Optimization Model (finding the right strategy), the Conversion Model (delivering provable ROI).

Brand safety, bot fraud and AI influencer selection:

- **A.I. for this presentation is augmented intelligence + human perception + Machine Learning = The Best Results.** For example, Influential With Watson. Influential, the company, uses A.I. to match an influencer and their audience to the brand's ethos. Machine learning structures the tremendous amount of data that's happening on social platforms, and A.I. results in a better chance for optimization. Figure out what the brand's audience looks like and ensure that the campaign hits the right people at the right time with the right content.

- **Real time vetting** is a dynamic process, which includes analysis of information about direct competitors, MPAA rating, background checks via PeopleSmart, compliance with FTC, COPA, DISCUS/LDA. etc. Sorting by industry specific keywords is also a feature of A.I. Watson identifies the most talked about keywords and conversations about the brand. Marketers can even choose the gender, age, personality, ethnicity, etc. of the influencer. Avoid influencers with a "bad history".

- **Audience quality issues** include bots (political bots, vanity bots, conversion bots) as well as inactive followers. The **Bot Fraud Prevention Council (BFPC)** was formed in order to set tech and measurement standards that can help marketers identify bot accounts, ensure their removal from social media platforms, and also devise authoritative audience engagement metrics.

- **Influencer reporting**: Influential utilizes clustering algorithms to identify bot fraud across audience and engagement, including fake engagement.

- **Brand-Safe Gateway**: providing brands with control of the content review and approval process in real-time. The 5 steps involve: influencer notified of the opportunity, influencer opts in to a campaign, influencer submits content for brand review/approval, brand approves influencer content, campaign launches with precision.

Attribution: Online and offline sales impact KPIs

Tracking + converting: UPC-level attribution + measurement enables viewed content to be tracked to physical purchase and dollar for dollar actualized ROI/ROAS. Specifically, data from IRI audiences, Instagram ad units and basket purchases, combined with input from data and conversion partners. A CPG success story served as a case study.

CPG innovation: Shifting budgets to influencer and native content: Reframing the value proposition to align with consumers' changing needs is essential. Leveraging influencer voices spreads the brand message within their circles of influence.

Media Agencies: Planning ahead for influencer campaigns:

- It is critical that the measurement plan be embedded within the communications tactics. This approach impacts engagement with media and other partners. Measurement needs to be holistic cross-channel. Testing plays an important role, also.

- **Does leveraging influencer voices deliver sales in terms of dollars, volume, ROAS compared cross-channel?** Attribution for influencer marketing is challenging. Early indicators in terms of engagement/business outcomes. **Measurement stack for cross-channel performance** involves marketing mix modeling, sales/brand lift, transaction IFO. Having a measurement stack is very important, and it should be holistic at the total enterprise level. **Influencer marketing has a positive impact on sales/brand lift.** At the present time, impact on MMM and transaction IFO is an unknown. In-flight optimization data has become available, and will enable rapid feedback from these campaigns.

3 recommended actions:

- Ground audiences and KPIs in business outcomes.

- Create measurement stack, powered by the right partners.
- Work in BETA.

Presentation:
https://cdn.thearf.org/ARF_Knowledgebase/ARF%20Audience%20Measurement/AxS_2019/Concurrent/The%20Keys%20to%20Success%20in%20Inluencer%20Marketing.pdf

Podcast Advertising Impact

Chris Peck –VP, Client Consulting, Nielsen
David Shiffman – SVP National Research, iHeartMedia

Chris Peck, VP, Client Consulting, Nielsen, and David Shiffman, SVP National Research, iHeartMedia, discussed attribution measurement, which provides definitive proof of podcast's advertising impact.

The latest Edison research shows about 32% of people listening to podcasts on a monthly basis. Almost a third of 18-34 year-old consumers listen to a podcast on a weekly basis; almost one in five on a daily basis. Those numbers just keep growing. People are seeking out podcasts and download streams, spending more time and giving more attention to podcasts. The amount of content that is available is expanding. When people seek out a certain kind of podcast content and start listening, they become very loyal to that content. There are many topics, types of content and genre of content available for podcasts.

One of the options is to leverage the podcast host to engage consumers in brand messaging and brand content as a huge part of integrating messaging. Finding the right content and where brands fit and being able to map those things together to be able to find the right context, content and environment to deliver the right message leads to fanbase engagement. Additionally, podcast advertising can be dynamically inserted into content.

iHeartPodcast Network can be used:

- Hosts read ads.
- Integrated messaging.
- Super fan base engagement.
- Dynamically inserted ads.
- Unique distribution for iHeart Radio.
- Podcasts + broadcasts.
- Amplified + scale on multiple platform.

Podcast Sponsorship: Ad Effectiveness Research from Nielsen

Understand the impact of podcast ads:
Solution overview: 50 studies + 70 podcasts + 13 categories.

- **Measurement process** involved an online survey with respondents exposed to the podcast clip(s) vs. a control group who listens to the clip(s) without the ad. Measurement factors: content rating, host rating, recall, familiarity, brand perceptions, favorability, recommendation, purchase intent and brand fit. Forced exposure approach with an online panel of podcast listeners that is screened in on certain criteria.

- **Benefit of the Nielsen approach:**

  o Sample collection (ability to forecast sample sizes. Higher sample allows for more powerful stat-sig testing).

  o Multiple creatives (test multiple creatives for the same campaign in a single study).

  o Speed (most studies field in 5 business days. No need to let sample build over long periods of time).

  o More studies (perform multiple studies on popular shows simultaneously).

  o Deadlines (not pre/post, so deadlines have more flexibility).

- o Nielsen is going to be able to release podcast benchmarks in each of the studies that they deliver to their clients in the near future. Right now, an overall podcast advertising benchmark.
- **Study Examples and podcast benchmarks:**
  - o Crate&Barrel's The Wedding Registry and 23andMe were analyzed for sample design, podcasts tested, content overview and podcast listeners.
  - o Brand metrics analyzed were: affinity, recommendation intent, info seek intent, consideration, purchase intent and familiarity. **The podcast was successful in driving significant lift for most brand metrics.**
  - o **Podcast benchmarks comparing the Crate & Barrel podcast to the Nielsen podcast average were analyzed.** Metrics analyzed: affinity, recommendation, purchase intent, aided recall, brand fit and content rating.
  - o **Content rating and brand fit:** Nearly 70% of respondents gave the iHeartMedia content a positive rating and nearly all (9-in-10) felt 23andMe was a good fit with the content of the podcast in the test.
  - o **Content elements**: listeners felt positive about the custom 23andMe podcast content. 67% of listeners intend to investigate their own DNA history in the future.

Advantages of podcast advertising:

- Take you **in-depth with your audiences** on topics about which they are passionate.
- Helps you develop **deeper relationships** with your consumers in a brand-relevant environment.
- Create custom content around strong **passion points.**

Presentation not available.

Feed In-Flight Optimization
(Power Campaign Performance with In-Flight Optimization: How the Right Offline CPG Data Feeds Digital Marketing to Increase Sales)

Jennifer Pelino - SVP, Omni Channel Media, IRI
Vincent Rinaldi - Head of Addressable Media and Technology, The Hershey Company

Jennifer Pelino, SVP, Omni Channel Media, IRI, and Vincent Rinaldi, Head of Addressable Media and Technology, The Hershey Company, analyzed how to use weekly offline sales information to quickly increase lift. The fundamental question of this presentation: **Are your metrics supporting your sales goal?**

Purchase data is a better metric than online proxies. Offline sales data relates to viewability, CTR and demo. **Offline sales data has traditionally been difficult to use:** late, limited, aggregated and disconnected.

Vincent spoke about how the Hershey Company is looking at how to tie more sales back to media. How well does a completion rate actually sell a chocolate bar? How does Hershey expose an audience and understand who actually saw that ad and who actually purchased the product? **Each brand at the Hershey Company has the same two goals every year: driving household penetration and driving sales**. The only way to do that is to reach more people, as in theory, that should achieve more sales. Hershey's media mix model did not allow the company to do anything really fast or really nimble. Getting MMM results takes too long. Difficult to use those results, and it's very limited to truly understand how media is affecting actual sales because Hershey is finding out way after the fact.

Hershey embarked on this journey with the in-flight optimizer to really understand what audience, what site, what actually drives a conversion? How many households saw an ad, how many households purchased a product as a result of optimization? **Looking at purchase data is a better metric than viewability completion rate or any other real metric today. Allows in-flight optimization based on sales data rather than awareness metrics.** Hershey is able to make changes in real time based on the conversion that they are seeing. So it is allowing the company to optimize to better performing audiences and to better performing sites. This data gives Hershey the ability to understand audiences and their purchasing behavior. Target each of the different audiences

vs. mass scale. Hershey is developing creative to match the time of day targeted. Benefits have included increased daily sales rates and better sales lift for the running campaigns.

Jennifer explained **how Nielsen's in-flight optimization works:**

- IRI captures loyalty card data at scale from major grocery, drug, beer, wine, spirit retailers.

- IRI matches loyalty card data to user IDs.

- DSP ingests IRI data and matches to DSP IDs of exposed users.

- DPS runs feasibility analysis with IRI to determine purchase history, budget and impressions, and launches campaign.

- Transaction data feed is used to uncover insights about best-performing tactics on a cross-device basis; continual weekly, mid-flight performance dashboard to understand performance and optimize.

Deep audience insights are developed:

- **Access unique demographic, psychographic attributes of known customers and anonymous prospects.**

- **Understand how audiences skew versus the industry average.**

- **Identify which 2nd and 3rd party data will be valuable before purchasing this data.**

Case study: Using Nielsen's in-flight optimization, a wine brand increased average daily sales by 128%. This increase resulted by combining IRI UPC-level, offline purchase data with superior advertising technology at scale. A 13.4% lift was attributed to understanding what works and what doesn't work for future campaign strategies and execution. Incremental revenue increased by 1.25MM.

- **In-flight optimization drives performance.**

- **The campaign was a success and in-flight audience optimization proved the positive driving force**. Lifts included $/HH, penetration, $/HH for IFO audience tactic, $/HH competitive buyer segment and $/HH IFO display.

- In-flight optimization tactics outperformed non-IFO and delivered **80% more ROAS and 3% improvement by penetration.**

Key takeaways:

- **Measure What Matters:** Lift and Sales
- **Measure at a Level of Detail That is Useful**: Tactics and Consumers
- **Optimize at Speed**: More Optimization Cycles Mean Better ROAS

Presentation: https://cdn.thearf.org/ARF_Knowledgebase/ARF Audience Measurement/AxS_2019/Concurrent/Feed-In-flight-Opt.pdf

Cross-Platform Council Presents: **Mind the Gap: Metrics for a Multi-Platform Age**

Rachel Clayton – Sr. Director, Data Innovations, Cox Media Group

Britta Cleveland – SVP, Research Solutions, Meredith Corporation

Kym Frank – President, Geopath

Beth Rockwood – SVP, Portfolio Research, Turner

David Shiffman – SVP National Research, iHeartMedia

Daniel Slotwiner – Director, Advertising Research, Facebook

Moderator: **Charles Buchwalter** – President, Buchwalter Media Consulting

The industry's focus on obtaining valid cross-platform metrics raises fundamental questions: What metrics should be considered in measuring cross-platform exposure and effectiveness? What gaps need to be filled in order to plan or buy on these metrics? Hear the perspectives of leaders from five different media.

Rachel Clayton, Sr. Director, Data Innovations, Cox Media Group; Britta Cleveland, SVP, Research Solutions, Meredith Corporation; Kym Frank, President, Geopath; Beth Rockwood, SVP, Portfolio Research, Turner; David Shiffman, SVP National Research, iHeartMedia; and Daniel Slotwiner, Director, Advertising Research, Facebook the fundamental questions raised by the industry's focus on obtaining valid cross-platform metrics. These leaders from different media provided their perspectives on questions, including: What metrics should be considered in measuring cross-platform exposure and effectiveness? What gaps need to be filled in order to plan or buy on these metrics? The panel was moderated by Charles Buchwalter, President of Buchwalter Media Consulting an Chair of the Online-Offline Metrics Working Group of the ARF Cross-Platform Measurement Council.

Charles: This panel is a follow up to a similar panel held at the ARF's AUDIENCExMEASUREMENT CONFERENCE in June 2018 with representatives from measurement suppliers. Marketers are moving aggressively to cross-platform and want a seamless way of planning campaigns across different media platforms. This panel represents broadcast TV, local TV, print, out-of-home, radio and digital. I am asking the panelists to share one fact or observation that gets them up at night or what they get satisfaction from:

David: The challenge is getting the best quality and the right data that reflects marketplace audiences into the most advanced planning systems and being able to connect that through the effectiveness systems so that you've got the highest quality data with granularity that reflects what actually happened in the marketplace and being able to get that data into whatever attribution solution is important to that end market.

Britta: The most frustrating thing for me is that we can't measure the impact of Facebook and other social media in our cross-platform analysis.

Beth: There is so much we need right now in terms of quality information. Although we all feel that things are happening incredibly fast, they're not really happening fast enough to help us help our clients to really understand how everything works together.

Daniel: On the one hand it's this tension between standardization and compatibility which I think is very important. Advertisers and agencies question why Facebook is different and is not telling them the same information that they are getting somewhere else, but they also want to benefit from Facebook's uniqueness to gain a market advantage.

Kym: Out-of-home not being included in the cross-platform conversation.

Rachel: From the local TV standpoint, we need baseline metrics, but don't have those metrics, yet.

Charles: Four topics to be discussed today: baseline metrics, outcomes, multi-touch attribution and time exposure/attention.

Baseline metrics used by the industry have included dwell stats, store visits, attribution, impressions, time, attention, valid GRPs, awareness-lift, reach, OTS, traffic, frequency, brand-affinity-lift, engagement, conversions, opportunity-to-hear, exposure-for-a-minimum-number of seconds, etc. Is it or will it ever be possible to measure exposure to all media by the same yardstick? If not, how can marketers put together and evaluate media plans without having to build custom models for every single plan?

Overall, the panel felt that a precise metric of every exposure to every media type on a personal level would be very challenging. Unique metrics or at least, not standardized metrics, may be needed. Different channels work differently and have their distinctive elements. Measurements may need to be unique to the specific campaign and to the specific advertiser. If you factor in different marketing objectives, that represents one more dimension that makes it more complex. Measuring engagement when you consider creative is another level which is going to be different, depending on strategy and other factors. The metrics are not going to be exactly the same in terms of how they're defined and operationalized across channels.

There is a need to measure the advertising components in an equitable way across platforms. That has to be carried all the way through to post-campaign validation or verification with as much precision as possible. Try to make sure those things are as comparable as possible across different media channels.

Charles raised the issue of the standard universe that each of these media use as a denominator. Each panelist named a different universe for its audience than the others, ranging from persons 2+ to adults 18+ to households with television sets. One suggestion is that it has to be the total universe of people available to buy your product. So, flexibility is needed.

Outcome analysis: suggestion that the key is understanding what the purpose of the campaign is and use that as the basis for what's measured. But measurement of awareness and upper funnel metrics is still important. Measuring performance is easier than measuring long-term effects, such as brand equity. But measurement of awareness and upper funnel metrics is still important. Awareness and sales are related, and both are critical. There is a need to focus on the outcome metrics that really matter, things that move the brand and the company towards their goals. Mixing in too many variables that are not related to these essential goals should be avoided

Attribution models: Each media is just a piece of the total media mix. So measuring attribution on each piece of the whole thing many not even mean anything to the marketer in the long run. Kym and Britta spoke about investments resulting in new measurement tools in the OOH and print arenas. There are a lot of models that are taken as truth without validation. **Industry-wide, validation of the models would be hugely valuable**.

Exposure: Concept of duration-based weighting and time of exposure. There was discussion about strong creative having the potential to be more impactful than the ad's length or the consumer's exposure time. Duration does have a positive effect on communications in general, but it is very campaign specific. It has to do with mental availability, whether the ad is emotional vs. rational; plus other creative elements play a role relative to effectiveness. Although an important input, a quick, easy decision is not expected on this subject**. The development of one set of metrics that defines value creation in terms of duration will be challenging**. Should the campaign's outcome be more important than the duration?

Conclusion: **The panel agreed that there is a need for cooperative measurement solutions. It is essential that the best data is going into models and that those models are validated.** A lot of time is spent proving the value of the individual media networks. The tendency to get caught up fighting parochial battles must be avoided. It is not just a research and technical issue. There are also business, political and organizational issues involved.

Corporate Underwriters: