MEDIA & ENTERTAINMENT DAY 2019

What Does A Machine-Learning & A.I. Enabled Media Organization Look Like?

SHIV SEHGAL
Chief Product Officer
RSG Media
WHAT IS THE FUTURE OF TELEVISION
How to Align business around a core content portfolio that enables the foundations to drive distribution platforms and anchor measurable relationships with evolving audience targets in time.

How Do We Scale Our Technology Platforms as we are facing increasing amounts of data, Increase Demand for deeper analytics (in real-time) across a larger user base and maintain platform stability (within a financial budget)
Research Drivers: Revenue Stream Revolution!
Solutions to Empower & Enable Data-Driven Decisions

Model Content Acquisitions w/ Data ‘Network-Audience Fit’

Audience (PID) Targeting: Content, Ads & Promos

Root Cause & Automation: Network/Content Underperformance
1.) Sample Change Impact: (core) PIDs Out of Universe?
2.) Loss in Total TV (PUT Bleeding?) Competition and/or Program Fatigue?
3.) Sudden Audience Behavioral Changes

 Attribution Modeling: Drivers for Audience Behaviors

Churn Prevention

New Revenue Streams (Licensing, SVOD & Micro-Payments)

Optimize Clock Management ‘Clutter’

Show Advertiser ROI

Program Fatigue Optimization

Content Recommendations

Program Schedule Optimization

Drive VOD Revenues

Forecast Universe

RSG MEDIA
Media Tech Reimagined
No one can whistle a symphony. It takes a whole orchestra to play it
Deep analytics, AI, enterprise systems, and expert advisory services.

**RSG © Rights**
- Enterprise Rights & Program Scheduling

**RSG © Audience**
- Radical Insights, Forecasting, & Optimization

**RSG © Advertising**
- Ad Tech Reimagined
DRIVING VALUE FOR THE MEDIA INDUSTRY
Driving Content, Audiences & Revenue

MEDIA ENTERPRISE PLATFORMS

ANALYTICS & DATA SCIENCE
SAAS PLATFORM

BOUTIQUE CONSULTING & ADVISORY SERVICES
FAST DATA PLATFORM

AI-Decision Making Platform: Decode Data for Radical Insights

1st & 3rd Party Data
File Parsing
ETL
Data Layer: Data Lake & Data Warehouse
Compute Layer
API
Users

Fuzzy Matching
Real-Time Data Auditing

nielsen Files Via NDS
gracenote A NIelsen Company

Heavy Computations
Light Computations
Modeling

Analysts & Researchers
Data Scientists
Cloud Native Application Architecture

Automated & On-The-Fly Data Processing

Data Fusion @ Scale

Pivot Enterprise From Data Management to Data Sciences

Enterprise Hosted Efficiencies: BPaaS & SaaS

Unify Enterprise w/ Research-Driven Initiatives @ Scale

Deeper Insights w/ Deeper Data

Interactive & Intuitive Data Visualizations

Unlock Data Sciences without an army of PHDs

Members Only Marketplace Discover, Connect and Collaborate

Unify Enterprise w/ Research-Driven Initiatives @ Scale
Solutions to Empower & Enable **DATA-DRIVEN** Decisions
DRIVING DATA DRIVEN EXPERIENCES & TOOLS THAT CAPTIVATE, INFORM & INSPIRE!

Analytics Portfolio

Network Group Dashboard

Multi-Network Dashboard

Schedule Grid

Schedule Grid

Schedule Grid

Network Segmentation

Program Quintile Segmentation

Duplication Matrix

Audience Flow

DMA Analysis

Only-Only-Both

Segmentation Bubble Charts
Jan 2019 Audience: 10,237 (74.46%)

3.8M Lapsed Viewers

3,776 (25.54%)

Jan Total Reach (000): 14,013
Jan Audience K2-11: 26,609
Jan Audience K2-11 UE (000): 40,622

VIEWER RETENTION & ACQUISITION STRATEGIES
Approaches to Grab & Hold Nick Audiences

LAPSED AUDIENCE MIGRATION
Who are they? Where are they from?

LAPSED AUDIENCE PROFILE
Who are they? Where are they from?

LAPSED AUDIENCES
Loss in Viewership By Reach & Share of Viewing

JAN RATING DECLINE
Heavy Movie viewers over skew and over index among females, older (P35-49), County Size D, African American & Non Hispanic.
Microsoft Excel 97 - 2004 Worksheet

Final Data

Right Click & Select Hyperlink to View All Other Reports
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Source: Nielsen, FY1818D

- **Network generally aired Two & A Half Men between Mon-Fri 2p-5p**
- **Other dayparts that where viewers displayed high viewing indexes on the network are, M-F 9a-1p and M-F 6p-8p**
NETWORK AUDIENCE ESTIMATES

Predicted vs. Network Rtg%

- is the only network that displays positive audience estimates for compared to network average.
- If aired on it would deliver network ratings between +2% to +6%.
- The other networks have all displayed negative results vs channel ratings.

Source: Nielsen, FY18 18/19, SCOOP & Custom Algorithm, predictions are based on FY18.4Q.
The Objective

Accurately Predict Network’s Granular Delivery and Ratings Based on its Future Schedule

Associated Business Use Cases

✔ **Primary Use Case:** What is most effective time slot (or daypart) to air a program to drive and deliver the highest ratings on a primary network? If we were to change the time slot for an existing program how would it perform in a new daypart? Should we move timeslot for a premiering series?

✔ **Sister Networks:** Forecasting Avails across Networks. If we were to change the time slot for an existing program how would it perform on a sister network?

✔ **New Titles/No or Minimal Airing History:** Forecasting for New Titles Not Previously Aired/No or Minimal History via ‘Guiding Benchmarks’

✔ **Network Forecasting:** Forecast Network Ratings 3 Weeks Out. What Nets Are Projected to Gain/Loss Share? What Competitor Networks are Projected to Gain/Loss Share?

Associated Technical Requirements

**Data Fusion:** Enhanced Title Metadata Across Sources

**Future Schedules to Historic Nielsen Data:** Matches Gracenote/FYI/Internal Systems to Nielsen for Historic Programming Performance for Forecasting

**Historic Nielsen to Historic Nielsen:** Holistic Content-Life Cycle Reporting across Nets

**Avails & Ad-Hoc Title Matching to Nielsen Data:** Matches Avails via Internal Systems (PTS) to Nielsen for Historic Programming Performance for Forecasting

**Ease of Use:** The Platform provides an interactive user interface that allows drag-and-drop what if comparisons to run on the fly predictions – including average audiences throughout the day with a confidence interval

**Auditing:** The Platform automates estimates for a given day, by time period specified such as: quarter hour, half hour and hour. These must be flexible to roll up to specified days/weeks/quarters and dayparts (both predefined and custom). All Matching & Estimates can be audited via the Administrative Module.
THANK YOU