CNN All Screen Review

Presentation to CIMM 3rd Annual Cross-Platform Media Measurement Summit

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CNN All Screen: Integrating Multiple Data Sources to Measure Cross-Platform Viewing

- Background
- Methodology
- Data Insights
- What’s Next
Turner Perspective: What Do We Need in a Cross-Platform Solution?

• Link to currencies used to transact individual media

• Include all platforms

• Needs to provide a platform view, a program/content view, and a selling inventory view

• Should include both consumption and advertising for display, video, gaming

• Data needs to exist in systems that are used to analyze audience dynamics and develop integrated packages for our advertisers

• Planning data needs to be predictive of data used in post-analysis
Solution: Partnership with Nielsen to create best-in-class cross-platform measurement solution.
3 Media, 7 Data Sources, 3 Methods

**TV in Home estimate**

1. Nielsen National People Meter Panel

2. Nielsen Audio Portable People Meter Panel

3. Nielsen Online Panel +

4. Omniture Server Data

5. Nielsen Mobile Panel +

6. Bango Server Data

7. Online Survey of persons accessing CNN via TV, Online or Mobile 18+

**TV out of Home estimate**

**Duplication estimates**

**Online estimate**

**Mobile estimate**
# Data Sources Summary:
7 data sources from 3 companies

<table>
<thead>
<tr>
<th>#</th>
<th>Data Source</th>
<th>Measures</th>
<th>Sample size</th>
<th>Demo details?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nielsen TV</td>
<td>National People Meter Panel</td>
<td>At home TV</td>
<td>54k</td>
</tr>
<tr>
<td>2</td>
<td>Nielsen Audio</td>
<td>Portable People Meter panel</td>
<td>Out of home TV</td>
<td>50k</td>
</tr>
<tr>
<td>3</td>
<td>Nielsen Online</td>
<td>RDD/Online Panel</td>
<td>Online CNN Digital Brand</td>
<td>200k</td>
</tr>
<tr>
<td>4</td>
<td>Nielsen Online</td>
<td>Mobile EMM Panel</td>
<td>Mobile CNN Digital Brand</td>
<td>6k</td>
</tr>
<tr>
<td>5</td>
<td>Omniture online server data</td>
<td>Online CNN.com</td>
<td>census</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Bango mobile server data</td>
<td>Mobile CNN.com + CNN app</td>
<td>census</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Nielsen Custom</td>
<td>All Media custom survey</td>
<td>Cross-media duplication</td>
<td>1k</td>
</tr>
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</table>
Arbitron → NPM fusion = in + out of home TV viewing

PPM sample fused to NPM using Nielsen’s industry-accepted Respondent-level data fusion methodology

Inputs → Respondent-Level Matching → Fused Database

- **Data source ①**: NPM Panel 54k Respondents
- **Data source ②**: PPM Panel 50k Respondents

**Respondent-Level Matching**
- match on: demos, household characteristics, in home TV viewing

**Fused Database**
- NPM with Fused Out of Home TV viewing (54k)
- single respondent level database with in home and out of home TV viewing
Digital Estimates: Online example 2-step process

**Step 1**
- **Estimate CNN.com monthly reach:** model daily server data (data source ④) for using Negative Binomial Distribution (NBD)
- **Compute adjustment factor:** modeled server estimate ÷ Nielsen Online CNN.com estimate (data source ③)

**Step 2**
- CNN Digital Brand Nielsen Netview estimate (data source ③) scaled by adjustment factor from step 1

*Mobile methodology is the same using data sources ⑤ (mobile panel) and ⑥ (mobile server data)*
Digital Estimates
Online example 2-step process

Reach estimates based on duplication factors developed from All Media Survey (data source ⑦)

Total reach = 44.7

Estimates assuming Random Duplication

Total reach = 52.8

February 2012 persons 2+ % of universe estimates
<table>
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<tr>
<th>Process</th>
<th>Validation</th>
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</table>
| 1) Fuse PPM to NPM to adjust TV viewing for out of home                | A. Compare sample distributions  
B. Compare % incremental reach to Arbitron results by demo  
C. Analyze fused vs donor profile skews  
D. Split sample test                                                                                                                                 |
| 2) Adjust online estimates using server counts                         | E. Compare to hybrid online                                                                                                                                 |
| 3) Adjust mobile estimates using server counts                         | F. Compare to Mobile EMM  
G. Compare to Mobile Internet survey                                                                                                                                 |
| 4) Weight and project custom survey                                    | H. Ensure weighted survey converges to weighting targets                                                                                                                                 |
| 5) Calculate duplication and time spent factors by demo from custom survey | I. Compare estimates to stand-alone estimate reported by Nielsen TV, Online, and Mobile                                                                                                                                 |
| 6) Combine Nielsen TV, Online, and Mobile estimates                    | J. Check combined data vs. stand-alone estimates                                                                                                                                 |
| 7) Apply overlap coefficients to media estimates to estimate duplication | K. Check overlap group estimates vs custom survey using index on random, overlap coefficient analysis                                                                                                                                 |
| 8) Apply index on average to time spent to estimate duplication group time spent | L. Check overlap group estimates vs custom survey using index on average analysis                                                                                                                                 |
| 9) Adjust demographic groups and duplication groups for internal consistency | M. Ensure Venn diagram components sum to each other and to total  
N. Ensure consistency between genders, total persons  
O. Ensure CNN digital-only estimates are consistent between CNN and HLN cross-platform estimates                                                                                                                                 |
| 10) Produce report                                                      | P. Compare to syndicated fusions  
Q. Compare to cross-platform sample (tv*online interaction only)                                                                                                                                 |
| 11) Create respondent-level dataset                                    | R. Compare Venn diagram components reach estimates NPOWER vs report  
S. Compare profiles to syndicated fusion and to NetView (online)  
T. Compare profiles to Mobile Media View and Mobile Internet Survey (mobile)                                                                                                                                 |
OOH and Digital/Mobile Significantly Extends TV In-Home Reach for CNN

CNN Monthly A25-54 Reach (Mill)

- TV In-Home: 33
- TV In-Home and OOH: 50 (+52%)
- TV In-Home, OOH, Digital, Mobile: 62 (+88%)

Source: Nielsen Media Research, CNN All Screen Custom Reporting
Period: December 2013
OOH and Digital/Mobile Significantly Extends TV In-Home Reach for CNN

<table>
<thead>
<tr>
<th>DEMO</th>
<th>TV OOH LIFT %</th>
<th>TV OOH / Digital / Mobile Lift %</th>
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<tbody>
<tr>
<td>P18-34</td>
<td>58%</td>
<td>101%</td>
</tr>
<tr>
<td>P25-54/ $100k+</td>
<td>44%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Source: Nielsen Media Research, CNN All Screen Custom Reporting
Period: December 2013
CNN All Screen: Data Insights — Financial Services Campaign

OOH Extends Brand A's In-Home TV Reach on CNN by Up to 43%

% Lift: Addition to TV IN-HOME (Currency)

“Brand A” Campaign-Level Data: Reach (000s)

<table>
<thead>
<tr>
<th>A25-54</th>
<th>In-Home TV</th>
<th>Total TV (In-Home + OOH)</th>
<th>CNN All Screen</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>11</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

+43%  +70%

Source: Nielsen Media Research, CNN All Screen, Custom Campaign R&F Campaign Dates: (8/10/12 - 9/9/12)
2013 NCAA Tournament Total Cross-Platform Audience:
Total = 187,894,000

33.5 Million
Digital Users

CNN All Screen: Current Status

- Incorporated CNN All Screen in CNN’s linear TV business
- Added estimates of CNN OOH delivery to CNN sales plans
- Added actual CNN OOH delivery to MSA post buys
- In conversations with MRC about review of All Screen process
- Due to XCR, less interest in marketplace in post-campaign reporting
CNN All Screen:
Future Developments

• Improve alignment of Digital/Mobile reach with currency measurements

• Enhance Sales Planning capability

• Move from survey to other methodology to incorporate digital and mobile w/TV
Thank You!