



# Measuring TV's Impact for Mobile Advertisers

Drive new app installations, improve retention of current users, and increase in-app transactions.

Presented by:



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## Introduction

Television is increasingly used by mobile-focused advertisers to drive new app installations, improve retention of current users, and increase in-app transactions. Key categories include free-to-play mobile games, mobile commerce apps and mobile services apps, among others. Audience-targeted television enables these mobile advertisers to find high concentrations of their target prospects on linear television programming. Measuring the impact of these ads for mobile focused advertisers utilizes real-time detection of the ads and an optimized television-to-mobile attribution measurement approach.

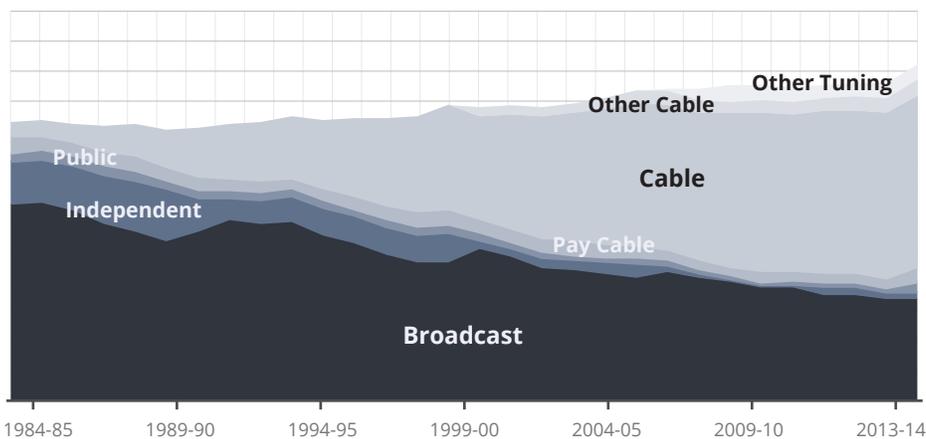


## How Audience-Targeted Television Works

Audience-targeted television utilizes a deficiency in linear television viewing patterns and turns it into an advantage. The issue is that while total monthly television viewing hours as measured by Nielsen have never been higher, the ratings per show have never been lower. Two-thirds of all cable programs have a rating of 0.5 or less (0.5% of all TV households).

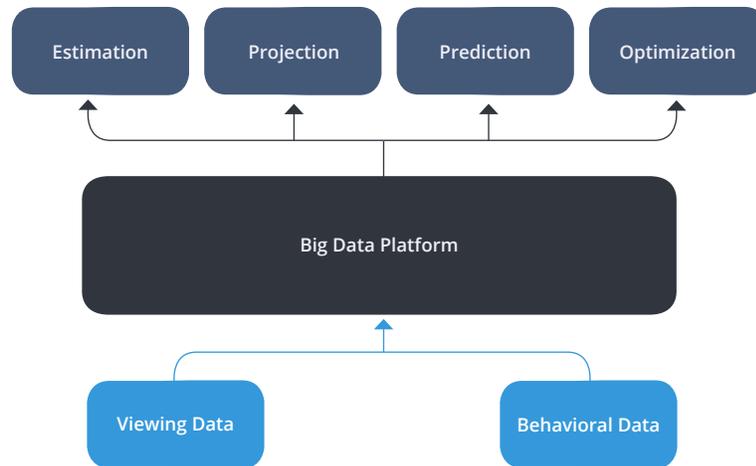
This fragmentation of audiences is due to the proliferation of specialized cable networks. However, we can take advantage of these changes by analyzing the audience characteristics of these networks to identify those which have the highest concentration of the advertiser's target audience and drive the most impact on KPIs.

Figure 1. Change in viewing patterns from 1984-2014



Source: Nielsen NPower

Figure 2. The Big Data Platform



Source: Simulmedia

So, if we could analyze everyone's viewing behavior, we would see the channel "flow" which provides the pattern of viewing for live and recorded programming across different times and networks. In addition, we would need additional behavioral and demographic data at the household level to understand the connection between viewing and purchasing behaviors. Set-top-box return-path data, which many cable and satellite operators collect and which some make available (*without subscriber identification*), provides this viewing data. Other sources of behavioral data, which are based on survey panels, can be fused or joined to this viewing data.

These data sets are large in size, require frequent and often daily updates, and need constant processing and analysis, forming a classic "big data" problem. Using techniques of estimation, projection, and prediction, we can develop linear television media plans which target specific audience compositions, while optimizing spots for cost and unduplicated audience reach.

It is important to note that this targeting methodology is applied to linear television advertising, as opposed to addressable television advertising. Linear television ads are the same advertisements that all viewers of the program have the opportunity to see.

Addressable advertising, used by some cable, satellite and IPTV distributors for their affiliate ad inventory of two minutes per hour, allows different ads to be seen by different households all watching the same program. Some addressable advertising implementations allow unique ads to be seen at the household level, while others can target creative at the head-end level (*typically around 100,000 homes per head-end*). In general, while addressable advertising can provide various levels of targeting, the reach overall from all addressable implementations totals about 42M households out of 115M television households.

## How and Why: Real-Time Attribution

The use case we are focused on in this white paper is using television advertising for mobile-focused brands such as games, e-commerce companies, and mobile services. The goal of an app marketer is to first acquire new users, then ensure their retention, and finally encourage them to make transactions within the app for monetization. We wish to measure the impact from the television campaign on the first goal: **customer acquisition**.

While many television brand advertisers expect to see the impact of their campaigns during the next purchase cycle for the product (*which may be weekly in the case of the frequently purchased consumer packaged goods, or every seven years in the case of automotive purchases*), app marketers expect to see download results right after the spot airs.

Television is not a real-time media in terms of reporting, and advertisers typically do not know exactly when a spot actually ran within a purchased daypart or hour until they get the post airing reports with actual airing times. This gap in identifying when the spot ran prevents app marketers from measuring their television campaigns as they occur in the same way that all other digital campaigns are measured.

Therefore, real-time ad detection of a campaign's creatives across many television networks is important to real-time measurement. wywy uses automatic content recognition (ACR) technology to recognize the ad airing in real-time and then, via API, communicates to Simulmedia's system the various data about the ad which can also be routed to the app developer's internal dashboard or analytics platform for real-time measurement.

## TV-to-Mobile Attribution Methodology

Now that we've established what we're going to be measuring (*app installs*) and when we're measuring it (*in real-time as the ad airs on TV*), we need to establish how we will measure the attribution from the TV campaign. Causal methods, which involve matching people exposed to the ad with the actions they have taken, are effective, but most gaming publishers do not have the user information necessary for this method of attribution. Therefore, correlation measurement is typically used, which examines a period in time and isolates the overall impact of the campaign during that window.

### How TV Analytics Works:

TV-to-mobile analytics measures the direct effect of a TV ad's airing on the advertiser's app downloads.

By looking at the visible uplifts in visits and conversions, advertisers can analyze how much they pay for a conversion and what time, day, creative execution and TV channel work best. They learn where they can get the maximum return from their budget. For the analysis, the TV-inspired uplift of app downloads is measured by looking at the overall TV-relevant traffic and then subtracting the baseline. The baseline represents the "regular" user acquisition that would happen without the TV-inspired visits. As "regular" install patterns vary throughout the day, the baseline is calculated by looking at a time window before and after the TV airing. The traffic uplift shows the TV ad's impact on new user acquisition.

## What is Important in Selecting an Analytics Tool?

The basis for any analysis is the underlying data. If the data is incorrect, then the results are misleading at best, and wrong at worst. It is important that the system provides:

-  **ACCURATE AIRING TIMES**
-  **ACCURATE ATTRIBUTION**
-  **CHANNEL COVERAGE**

### Accurate Airing Times:

Knowing the exact airing time of a TV ad is essential, because it allows the advertiser to determine the correct attribution window for the TV airing. Only by distinguishing the airing times can advertisers correctly identify and attribute the visit or conversion uplift to the right TV channel and TV creative. Airing times can be collected by:



#### BOOKED AIRING TIMES

1. Looking at the booked airing times in the media schedule. This method delivers mediocre results at best, because planned and actual airing times vary on average by at least 5 minutes. With shorter attribution windows (*e.g. 2-3 minutes*), the large variation in airing times becomes a problem.



#### POST AIRING REPORTS

2. Receiving post airing reports from the TV channels (*up to several*) weeks after the TV ad's airing. This method delivers accurate results, but has the drawback of having to wait for results. While it becomes necessary to reprocess the web traffic data for the analysis, many web analytics tools (*such as Google Analytics*) do not offer this capability, bringing specialized cross channel attribution tools (*offering TV attribution as part of their package*) into play.



#### AIRING IN REAL TIME

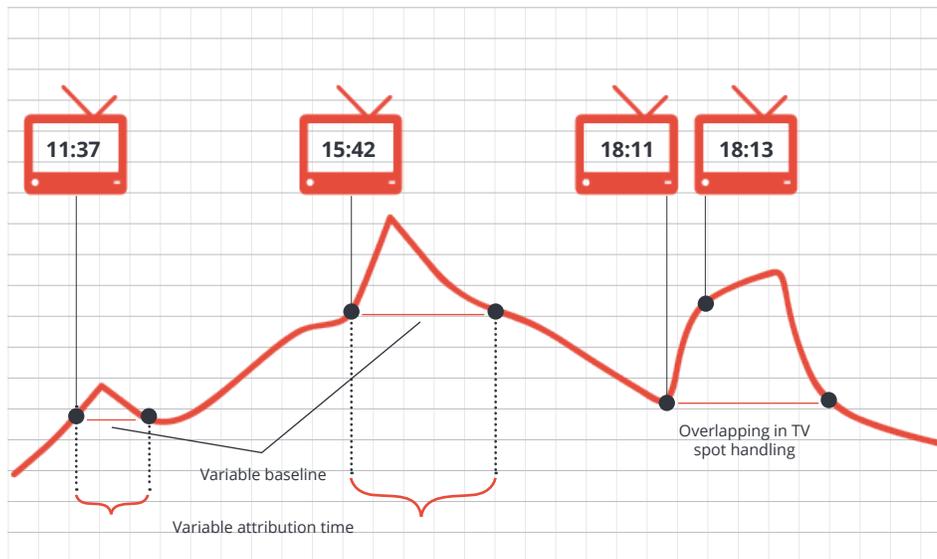
3. Using a TV ACR-technology that recognizes the TV ad's airing in real-time and sends the data to an analytics tool automatically. This allows app marketers to process the data directly, thereby getting immediate insights. Existing web analytics tools (*such as Google Analytics or Adobe Analytics*) can incorporate the data with some manual work involved, and specialized TV Analytics tools have predefined reports readily available.

### Accurate Attribution:

Sophisticated algorithms are the basis for measurement with superior accuracy. The algorithms calculate:

- An individual attribution window per TV ad airing
- An individual baseline per TV ad airing
- The correct attribution when TV airings overlap

Figure 3. The TV Attribution Methodology



Source: wywy TV analytics

This superior accuracy is important because:

- *A separate calculation of attribution times ensures that TV-inspired app downloads are not cut off when the attribution time of one ad is longer than that of another.*
- *A separate baseline calculation per TV ad is important to analyze the exact impact of each ad because, for example, app downloads are usually higher in the evening than in the morning.*
- *A handling of overlapping TV spots using distribution weights for channels to ensure that very small channels do not get over-estimated in attribution.*

### Channel Coverage:

The measurement should cover all relevant TV networks and channels where the TV ad airs, so you receive the complete results of your TV campaign analysis.

## How Can I Optimize my TV Ad Campaign's ROI?

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There are several different ways (*which can be combined*) to get the most out of your campaign:

- Instead of committing fixed budgets, use audience-targeted TV platforms to continuously optimize your TV buy.
- Use test campaigns to measure the impact of the campaign on your targeted and non-targeted audiences. Leveraging the test, you can now activate bigger budgets on ROI-proven targets.
- Test different TV creatives with short campaigns and check which one works best. Then only air the best performing creatives, similar to what you do for banners and search ad texts.

## Summary

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We have described in this paper how audience targeted television allows app marketers to find specific audiences on linear television that are most appealing to their app's users and have the greatest impact on downloads, retention and in-app purchasing. Next, we've shown how by using real-time ad occurrence data from the campaign, the impact of the TV campaign can be measured as it's playing. Finally, we've described how a TV-to-mobile attribution methodology is optimized by having accurate airing time data, and accurate attribution algorithms that take into account variables such as time of day and channel coverage, allowing measurement from a wide range of networks.



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