



AN INTRODUCTION TO ADVANCED TV

BRIDGING THE GAP BETWEEN TV AND DIGITAL



IN THIS PAPER YOU WILL LEARN

What is advanced TV Retargeting?

How Connecting Smart TV and Digital Profiles works


Why a connected approach is Important

How to Get the Most Out of Combining TV and Digital Profiles

How to Plan a unified TV and digital Campaign

How to Run a successful unified TV and digital campaign

Where to Go Next



eMarketer predicts that in 2020, US adults will spend 54.8% of their day on digital and 28.9% on traditional TV. We hit a major milestone last year when digital consumption finally surpassed TV as the majority media that consumers spend their time with.

However, the television is still the largest screen in most households in 2020 and while live broadcast and cable viewership continues to decline among younger viewers, the demand for that content has not decreased. Instead viewers have shifted the means by which they consume that content, watching through digital channels such as the streaming services and apps that are now ubiquitous on household devices.

The resulting environment creates a double-edged sword, of sorts: Advertisers find that they can no longer count on TV being the primary vehicle for reaching a mass audience, but they can also reach those audiences (and many like them) on a broader range of devices and in more locations than ever before. As such, the advent of digital viewing is not a problem for savvy marketers but rather an opportunity to supplement their TV efforts with smarter digital strategies.

INTRODUCING ADVANCED TV RETARGETING WITH MIQ

Our advanced television solutions, bridge new and traditional media assets.

Our TV retargeting capabilities allows advertisers to leverage the largest single-source, smart television panel in the United States, with over 8 million opted-in households. This enables us to connect second-by-second television ad and programming viewership data with thousands of online, offline, and environmental consumer attributes to power Marketing Intelligence for advertisers.

➤ HOW IT WORKS

Our TV retargeting is the first solution of its kind to be powered by rich television viewership from Vizio, one of the largest smart television manufacturers in the country. Vizio provides MiQ with second-by-second television viewership behavior on millions of opted-in households in the United States, connected to an IP address. This allows us to see the content watched by the household, including shows viewed (down to the episode), networks watched, and ads seen - in real time.

➤ COLLECTING TV DATA

Vizio uses automatic content recognition (ACR) technology that allows it to detect the content that is playing on a television screen at any given time. This is the same technology that Shazam and Apple's Siri use to detect which songs are playing in the background - except that it works by using a "pixel" on the television screen instead of audio to detect what content is being watched.

In order to detect the programming content on the television screen, the pixels on the screen are compared to live video feeds from all of the major networks. This allows us to see any of the shows, movies or sports consumers watch on television.

To detect which ads are displaying on a given screen, the same ACR technology, compares the pixels on the screen to a database of ads. We collect always-on commercial viewership data for tens of thousands of the top television advertisers in the US, with the ability to add new ads to this database through a process of manual ingestion.

Once a match is made, the metadata associated with that match (timestamp, show title, network, commercial name, etc.) is shared with MiQ for a number of use-cases.

➤ FILTERING DEVICES TO ENSURE QUALITY SAMPLE

Just collecting data from Smart TVs isn't enough. As with other devices and digital data, we're concerned with quality, and so need to take measures to "filter out" the devices that likely don't sit in a household or can't be connected to a single viewer profile (more on that later). There are a few ways we can do this, such as:

- Excluding devices that are always on. Devices that are either on all the time or for very long stretches are less likely to be in a household than say, an airport or bar.
- Excluding "noisy" devices. Devices that change IP address constantly may be using technology to misrepresent their physical location, and can be excluded as well.

CONNECTING TV AND DIGITAL PROFILES

Every smart TV in the sample that connects to the internet is assigned an IP address, or a numerical label used to identify the device. In most households, multiple devices such as computers, phones, and the smart TV will connect to a router, a networking device that facilitates communication between multiple networks. When multiple devices are connected to the same router, they form a network, and will appear to have the same IP address externally. This address is assigned to the router by the household's Internet Service Provider (ISP).

As a result, we can identify when multiple devices are in the same household by looking at whether they have the same IP address. When we can match a smart TV to a series of desktop and mobile devices, we have essentially created a “digital household.”

Even more than mobile devices and PCs, smart TVs are likely to be viewed by multiple members of a household, and so the next step in building effective targeting entities is figuring out how to separate the devices and viewing habits in a household based on whether they’re likely to belong to a different person.

Some ways to do this:

➤ **USE THIRD-PARTY DATA TO VERIFY HOUSEHOLD MEMBERSHIP**

By working with a third-party partner who has deterministic data on device ownership or unified login profile data, you can both use that data to directly separate people in a household with the same devices. Deterministic data is the most accurate, but will usually not give a large enough sample size by itself to reach an appropriately large audience.

➤ **USE MACHINE LEARNING PROCESSES TO BUILD PROBABILISTIC DEVICE CLUSTERS BASED ON VIEWING/BROWSING HABITS**

If you have deterministic data, either first-party or from a third party, you can use it as training data to build a model for predicting whether a device is likely to belong to a specific person in a household and apply that modeling to the rest of your audience. In doing this, you can use a mixture of TV viewing habits and online browsing habits to build models that separate both, and help you figure out who’s likely to be watching TV based on what program is being watched.

Once this has been done, we can build unified profiles of consumers that include TV viewership and usage in addition to demographic data and digital behavior data such as purchases, sites visited, or browsing

activity. This also allows us to connect consumer behavior on multiple digital devices to TV viewership and usage of some Smart TV apps.

We can use these same techniques to build cross-device profiles for consumers that include mobile devices.

BUILDING LOOKALIKE MODELS

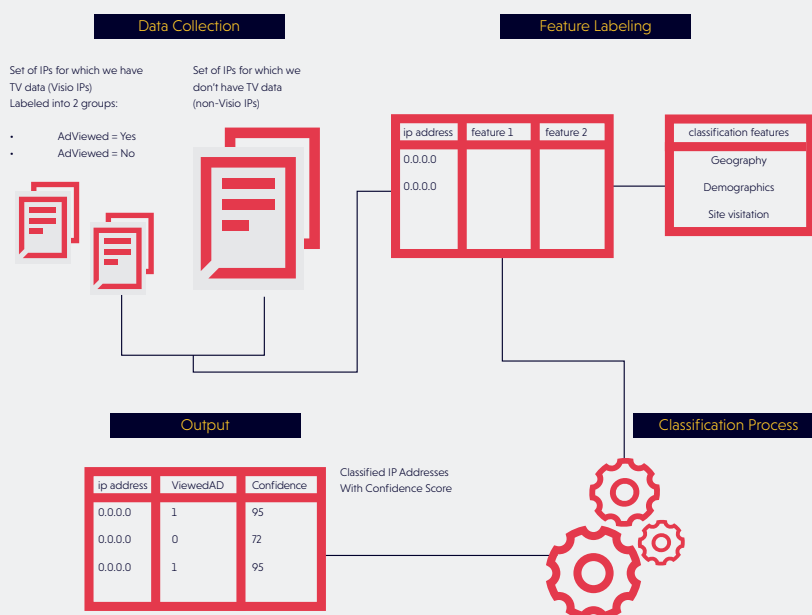
While being able to directly connect a TV and digital campaign is great, many advertisers will want to reach consumers who do not own a Vizio TV or go beyond retargeting potential customers exposed to a TV ad. In these cases, we can build a lookalike audience of consumers who are similar to that audience in terms of the traits they shared.

Put into different terms, this is a classification problem for a machine learning algorithm: Consider everyone with an MiQ profile for whom we don’t know whether they saw the ad on TV. Are they likely to have seen one, or not likely to have seen one? By looking at

the common features shared by consumers who saw an ad on one of our measured TVs (and the features they collectively don’t have), we can, for each profile, identify whether it is likely to belong to the exposed or unexposed group.

Once we’ve done this, we can make those lookalike audiences targetable entities and serve them campaign messaging that reflects whether they may or may not have seen a brand’s TV ad.

COLLECTING AND CONNECTING SMART TV DATA



MEASURING SUCCESS

For marketers, the ability to target consumers exposed to TV ads in digital channels is only as valuable as their ability to drive and measure results. Building a successful TV retargeting campaign means attributing paid media spend across television and digital to specific business outcomes, which can depend on campaign messaging and objectives. Some key ways to measure success include:

➤ TRACKING INCREASES IN BRAND AWARENESS OR PURCHASE INTENT

By using digital surveys to track customer attitudes and brand measures such as awareness and purchase intent, either using a pre/post or control/exposed methodology to track the impact of ad exposure among the target audience. When evaluating solutions in this area, be sure to choose a partner that can show survey results across multiple demographic, behavioral, and psychographic attributes to provide additional optimization vectors, and who can collect this data in real-time and adjust campaign delivery accordingly mid-campaign.

➤ TRACKING AND ATTRIBUTING ONLINE PURCHASES

By leveraging cross-device capabilities to tie TV viewership to digital activity, you can track the online purchases and site actions of consumers who have been exposed to your TV ads, display ads, or both. Brands with eCommerce capabilities can then use conversion (or, ideally, a more advanced data collection tag like MiQ's proprietary advance pixel) to detect when these actions occur and tie them back to exposure. More advanced advertisers should also consider building multi-touch attribution models that incorporate TV exposures, to develop a true picture of how their campaigns drive revenue.

➤ MEASURING BRICK-AND-MORTAR TRAFFIC

Partners that have the ability to connect TV and display ad exposure to physical location, such as through MiQ's location targeting product (when layered onto TV retargeting), can close the loop on using their campaign to drive store foot traffic. Savvy brands can also identify how exposure to competitor ads impacts this process, and identify ways to blunt the impact of competitor ads and conquest customers for their own.

THE VALUE OF INTERCONNECTIVITY

Leveraging TV data is about more than just tracking viewers and looking at aggregated reports. MiQ TV retargeting isn't a measurement or planning tool but rather a way to add TV viewership data to millions of digital profiles, allowing for more robust audience building and targeting. The value here is in the ability to not just know what your audience watched, but to be able to action against that information and reach consumers who watch a particular program, saw an ad or competitor's ad, or who fit a certain content profile.

By leveraging television data, brands can plan and measure their cross-channel campaigns more effectively across digital and television. However, planning across two channels is only the start, the true value of integrated planning comes in combining various attributes about consumers to build a truly comprehensive view of your customer.

Here are a few ways that brands that have the ability to connect TV data to digital data can go further with their television and digital initiatives:

PLANNING AND MEASURING AGAINST OFFLINE RETAIL TRAFFIC

For brands with brick-and-mortar locations, foot traffic is still a key focus of their marketing objectives. Retailers, quick-serve restaurants, and grocers are all well-positioned to

combine TV data with a location-based targeting solution to connect TV and digital ad exposure to a customer's location. As a result, this data can be used to track whether someone exposed to ads in one or more channels visited a physical store location afterward. With larger campaigns and deeper integrations, advertisers can look at the impact of specific channels or shows, or messaging on driving foot traffic.

LOCATION-BASED TARGETING WITH MIQ

Ours is the only location-based programmatic solution that leverages the full power of Factual's observation graph technology to go beyond footfall measurement.

We transform how location data drives programmatic campaigns by:

- Tapping into a full feed of industry-leading location data - not just "off the shelf" segments
- Helping advertisers better understand cross-visitation and the consumer purchase journey - not just footfall tracking
- Leveraging predictive analytics to understand not just where a customer is, but where they've been and where they're likely to be

When combined with TV retargeting, we can help brands leverage location data to plan campaigns across television and digital to reach the customers that matter most. With cross-channel TV data, brands can target viewers with similar interests as their current customers to target prospects most effectively and drive them to store visits, closing the loop by targeting them with advertising as they near a brand's retail locations.

INTEGRATE FIRST-PARTY AND TV VIEWING DATA

Intelligent marketers are hungry to collect and activate against first-party data, one of the most powerful advantages a brand can have over its competitors. Most brands have already started using their first-party data assets to inform targeting strategies for their digital campaigns, but there's a large gap to hurdle when it comes to applying that data to TV campaigns. As a result, most brands still plan and measure their television campaigns against third-party data and metrics.

Smart brands connecting their TV and digital data sets can bridge this gap. By combining TV data with their first-party data, brands are able to plan, buy, and measure more effectively across television and digital.

Specifically, you should have a partner who can integrate the following data:

- CRM data
- Pixel data from site (ideally parameterized as needed)
- First-party DMP data

Advertisers who don't have those rich first-party assets can also capitalize on this data by working with a partner who can supplement their current planning with the addition of powerful second and third party datasets, such as:

- **PROPRIETARY BRAND AFFINITY DATA**, which can help brands reach customers who are likely to be interested in their products based on their online site visitation behaviors.
- **OFFLINE LOCATION-BASED DATA**, which can help brands target or plan against users who have visited their (or a competitor's) offline retail locations.
- **DECLARED BRAND SURVEY RESPONDENTS**, which can help brands understand who their core audience is. This audience can then be scaled up using lookalike modeling techniques, such as those employed by MiQ's predictive retargeting technology.

- **CUSTOM THIRD-PARTY DATASETS**, which can help brands who have DMP relationships bring their preferred third-party data into MiQ's ecosystem to plan, buy, and measure cross-platform campaigns using that custom third-party data.

RUNNING A TV RETARGETING CAMPAIGN

There are several ways that an advertiser might derive value from combining TV and digital audience data in this way. The most obvious are:

- **BUILDING AUDIENCES OF CONSUMERS WHO WATCH A SPECIFIC SHOW OR SET OF SHOWS.**

Data on show viewership, either a single show or multiple shows, can be used to build groups of consumers who fit a specific viewing pattern, and then that profile data can be expanded via lookalike modeling to build digital audiences that are also likely to share that profile. In this way, our TV insights dashboard can be used as a type of planning tool to build more robust targeting segments.
- **DRIVE INCREMENTAL REACH BY IDENTIFYING AND TARGETING UNDER-EXPOSED CONSUMERS.**

It is difficult to control reach and frequency with TV ads, a challenge that frequently results in the same consumers seeing ads dozens of times while others may see an ad only once or not at all. By identifying the consumers who saw an ad online, advertisers can look at targeting the unexposed digitally, to drive incremental reach for a broader campaign looking to use digital assets to reach an audience it cannot efficiently reach on TV screens.

- **BUILDING AUDIENCES OF CONSUMERS WHO SAW A SPECIFIC AD OR CAMPAIGN ON TV.**

Instead of looking at show viewership, marketers can look at targeting people who have seen a specific ad or campaign, either for their brand or a competitors'. They can then retarget those consumers (and potentially their lookalikes) digitally, by connecting the purchase journey across multiple devices.

A well-known American department store retailer wanted to understand how cross-exposure to their brand's TV and digital ads drove value for their brand, and why customer interest varied across different categories of apparel. To solve these challenges, the retailer partnered with MiQ as a beta tester, using TV data to identify consumers who had been exposed to the brand's ads on TV and connect that to online ad exposure and activity on the brand's website.

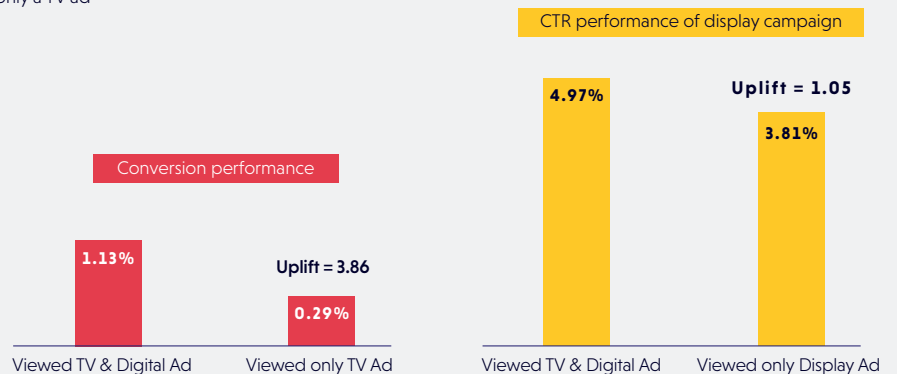
DRIVING INCREMENTAL PERFORMANCE & REACH

MiQ's initial hypothesis was that we'd see higher performance among consumers who had seen commercials on TV, but it wasn't clear how much higher that performance would be. Using Vizio data to identify consumers exposed to TV ads, we built a targetable digital segment and actively retargeted those consumers with display ads on their desktop and mobile devices.

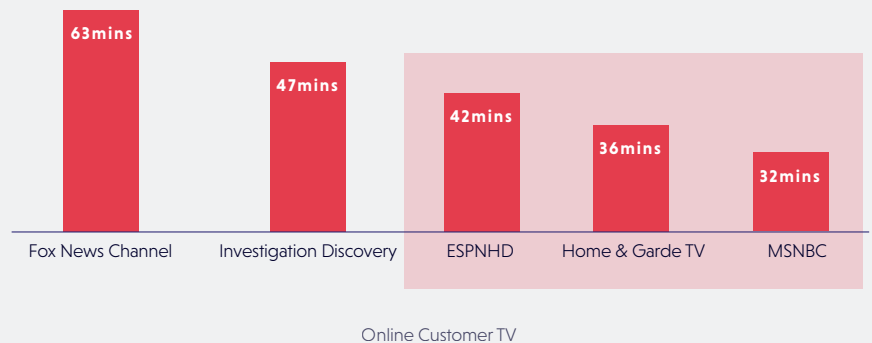
For comparison purpose, we also identified customers who had seen a TV commercial and converted on the brand's website without seeing a digital display ad over a two month period in April and May 2018. During this time, the database captured 3.4 million IP addresses viewing the brand's ads on TV and MiQ successfully retargeted 273k TV ad-exposed consumers with display ads. Looking at the results, we found that conversion rate performance for TV and digital-exposed consumers was 3.86x higher than it was for TV-only viewers, though it should be noted that click-through rate performance was only 5% higher.

RETAILER ONLINE PURCHASE CONVERSION LIFT BASED ON EXPOSURE PLATFORM

Users who saw both television and digital ads were more likely to convert than users who saw only a TV ad



TIME SPENT BY NETWORK



USING AUDIENCE PROFILES TO IMPROVE PLANNING

Delivering digital ads using TV data for incremental performance or reach is just one part. The data can be used to understand the audiences who see a brand's TV ad and how they align with its campaign strategies.

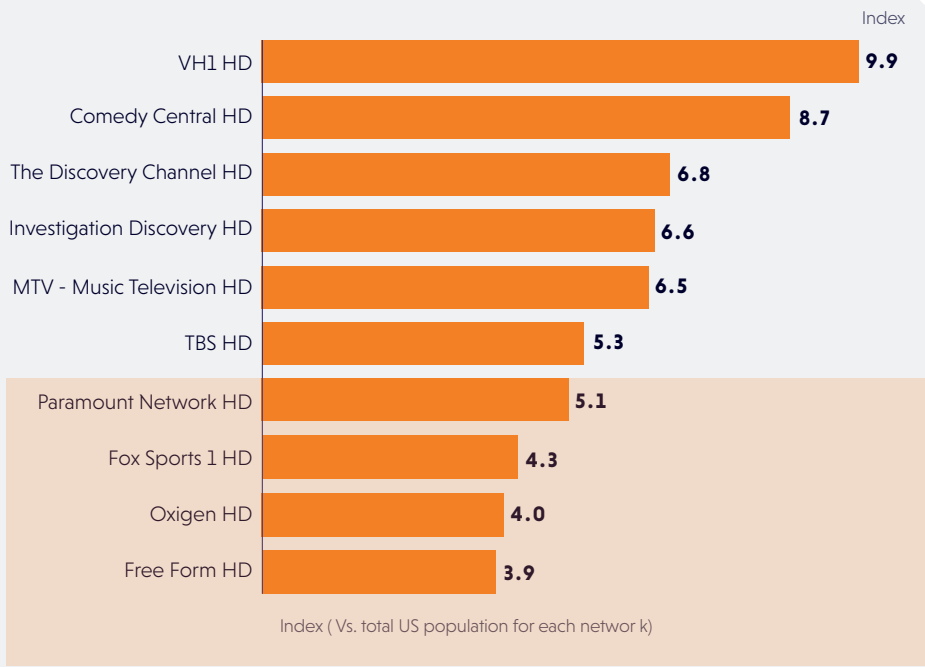
For the department store brand, we observed that customers who converted on the brand site over-indexed to viewership of the ABC and Disney networks, while the brand had primarily allocated its TV budget to advertising on HGTV, Food Network, and TBS, indicating an opportunity to shift its TV strategy to take advantage of where it was seeing more value.

In another example, we partnered with a major pizza delivery chain to identify where customers placing online orders were spending the longest periods of time per day. Doing so showed that although customers were likely to spend more time on networks such as ESPN, HGTV, and MSNBC, the brand had allocated less of their TV spend to those networks, again showcasing an opportunity to reach high-value consumers who aren't being reached normally.

Conversely, brands can utilize TV data for digital opportunities as well. The pizza chain was already heavily investing in specific top networks with the highest concentrations of its online order audience. However, there is an opportunity to increase efficiency by investing in networks like TBS, Fox Sports and Freeform more aggressively.

The digital opportunity in this case would be to target audiences of these networks to improve the reach to potential customers for the brand.

BRAND CUSTOMER VIEWERSHIP INDEX, BY NETWORK



RETAILER AUDIENCE COMPARISON, TV VS. DISPLAY



SUSAN SAW A RETAILER AD ON TV

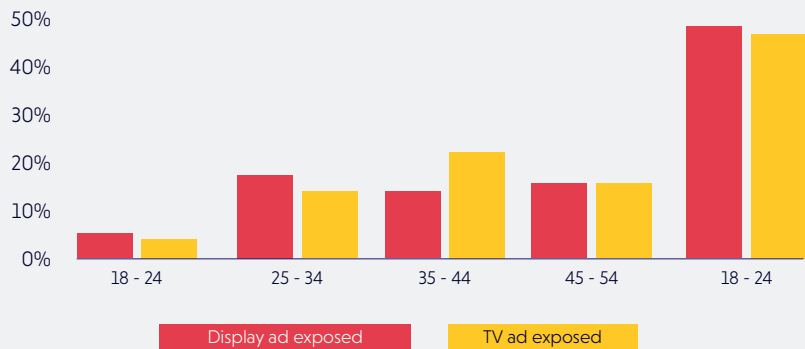
- 35 - 45 years of age
- High income
- Married
- Targeted purchaser



CASEY INTERACTED WITH A RETAILER DISPLAY AD ONLINE

- 25 - 45 years of age
- Moderate income
- Single
- Compulsive shopper

PERCENTAGE OF DIGITAL CONVERSIONS BY AGE GROUP



USING AUDIENCE PROFILES TO IMPROVE TARGETING

Using our TV data feed, we can compare audiences across TV and digital, identifying how a brand's targets and engaged customers may vary by channel. For the department store retailer, we compared the user demographics and preferences for digital ad viewers and site converters to those that saw one of the brand's TV ads. By doing so, we were able to identify that digital converters for the retailer were younger than digital customers who saw TV ads before making a purchase.

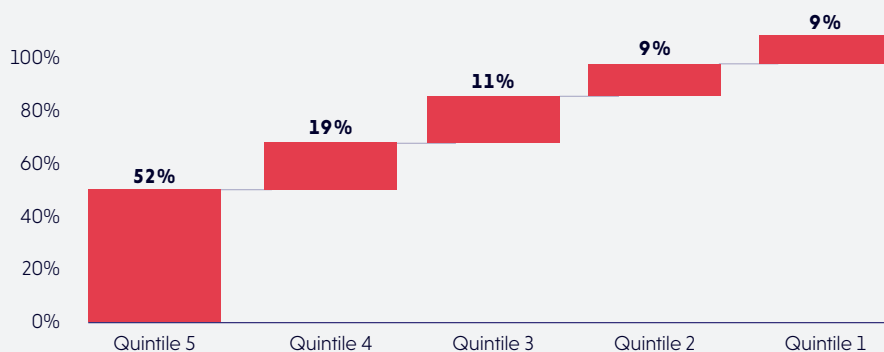
Customers converting after seeing TV ads were also 1.4x more likely to be either married or cohabiting than the digital audience, of whom 40% were single. TV audiences were also observed to have higher travel budgets than their digital-only counterparts.

FREQUENCY OF ADS

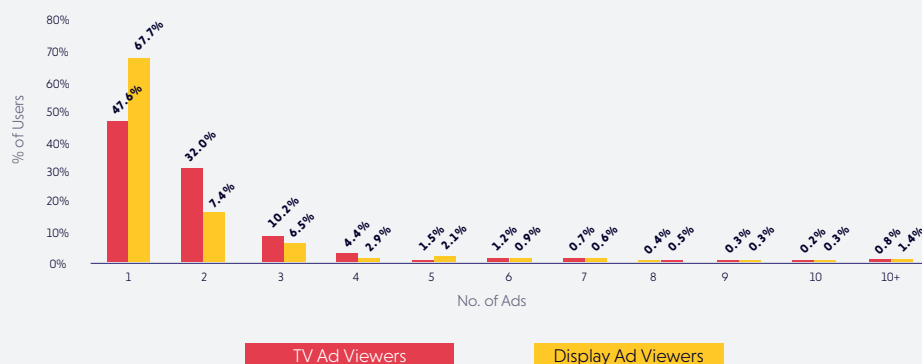
The inability to manage and control ad frequency has long been a problem for TV ad buys. When looking at the department store retailer's TV ad delivery, we could see that two-thirds of the brand's target audience saw only a single impression, while 20% of the brand's target saw more than half (52%) of the brand's TV ads. This indicates an opportunity for the brand to leverage TV retargeting capabilities to reach customers outside of those high-exposure quintiles, driving incremental reach.

Putting this into practice, we could distribute display ads disproportionately to those consumers who saw fewer department store retailer ads and begin thinking about how to maximize retargeting efficiency. In this case, the highest number of conversions for the retailer came from consumers that viewed a TV ad first and were subsequently retargeted with 3-6 digital ads over a fifteen day period, suggesting that for this retailer, the optimal digital strategy was retargeting consumers exposed to a smaller number of TV ads.

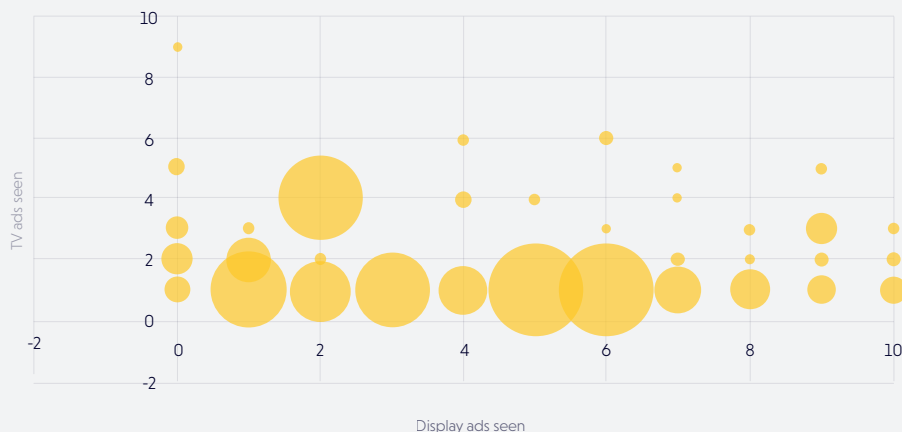
PERCENTAGE OF ADS SEEN FOR DEPARTMENT STORE, BY QUINTILE



PERCENTAGE OF CUSTOMERS EXPOSED BY NUMBER OF ADS



CONVERSIONS BY COMBINATIONS OF TV, DISPLAY ADS



The position on the horizontal axis represents the number of digital ads seen by a group of consumers, the position on the vertical axis represents the number of TV ads seen by that group, and the size of the circle denotes the number of consumers in that group. The largest concentrations of consumers have seen 1 TV ad and either 5 or 6 digital ads.

IN-STORE VISITS

While driving in-store visits was not a primary goal of the campaign we ran for the department store retailer, we were able to combine 1:1 TV data with location data to track the IP addresses of consumers exposed to TV ads versus digital ads. Overall, consumers exposed to TV ads were 1.25x more likely to visit a physical store location for the retailer than those exposed only to digital ads (0.16% of recorded TV-exposed consumers vs. 0.13% of digital-exposed).

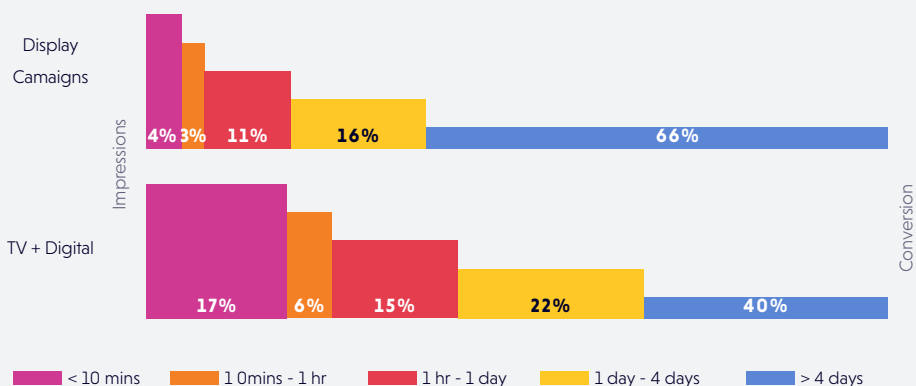
TIME LAG TO CONVERSION

Looking at the time to conversion shows an interesting relationship, where consumers who saw a TV ad were likely to convert (make a digital purchase) sooner after being retargeted with a display ad, as compared to those who only saw TV ads. This suggests that not only does retargeting increase the chances of an exposed consumer converting, but it also speeds up the time frame on which someone is likely to do so. For display-only campaigns, only 4% of customers converted within ten minutes of seeing the ad, compared to 17% for the campaign where customers had already seen a TV ad for the brand and later were retargeted with a display ad.

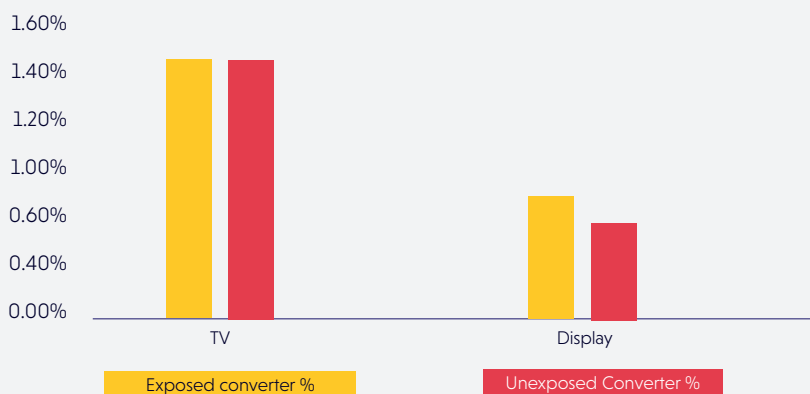
COMPARING THE TV & DIGITAL AUDIENCES

This preference for in-store visits among TV-exposed consumers caused us to think about whether there were other major differences between audiences to consider. Considering the other side of the buying equation, we compared the number of consumers who made a digital purchase across the TV and digital audiences. Specifically, we looked at the digital purchase rates of consumers in our sample (Vizio owners) who were and were not

TIME TO ONLINE PURCHASE, BY EXPOSURE TYPE



DIGITAL PURCHASE PROBABILITY LIFT, BY AD EXPOSURE PLATFORM



exposed to TV ads and compared them to the rates of those outside the sample.

The results suggested that, while TV ads had more of an impact for in-store visits, their impact on online conversions was minimal without the addition of digital advertising. Comparatively, non-TV audiences exposed to digital advertising were 1.5x more likely to visit the retailer's website and make a purchase.

While TV ads have more of an impact on offline store visits, they do not necessarily impact online conversions on their own. The percentage of online converters among people exposed to a TV ad is almost the same as that of people not exposed to a TV ad. However, when coupled with a digital ad to

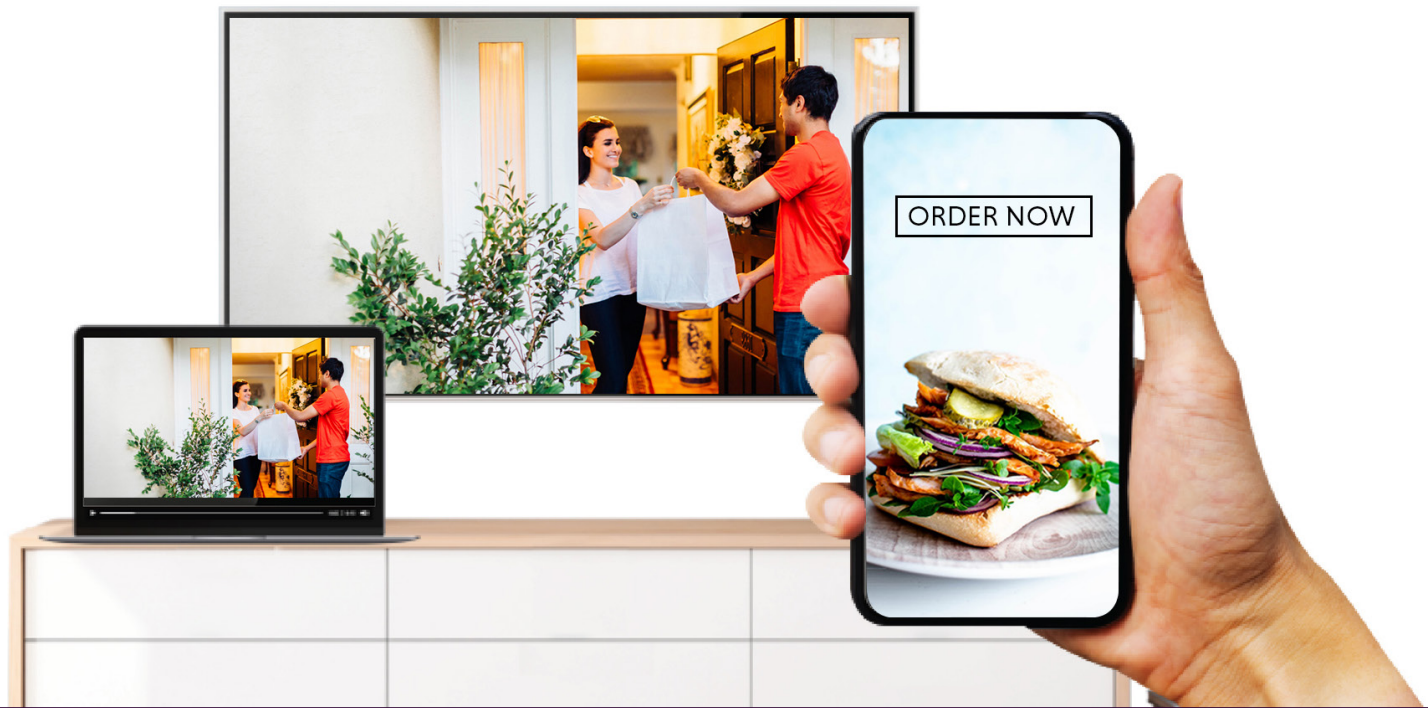
retarget your TV ad viewers, the percentages increase. These users are 1.5x more likely to visit the brand's website or buy a product online if they see a digital ad for that brand.



A market-leading Greek yogurt brand wanted to celebrate its 10th anniversary with a massive awareness campaign centered around coupons awarding free yogurt. The brand and their agency approached MiQ to run a full-funnel marketing campaign, with the overall objective of driving as many consumers as possible to download and print the offer coupon.

MiQ and the brand's agency knew they needed an innovative approach to support this offline offer with an online, multifunction agenda. Their answer? MiQ's one-to-one television retargeting product, allowing brands to bridge the divide between digital and television. With MiQ, brands can use television and web-based insights about their audience to more effectively reach customers across all screens and touchpoints.

- ✓ CVR 2.5x higher than the brand's purchase segments at a 30% lower CPA
- ✓ 280,000 people driven to the landing page
- ✓ Over 86,000 coupons downloaded



TAKING THE NEXT STEP

Combining TV viewership and digital profiles is just the first step on a long journey. As brands begin to bring their first-party data into the television picture and combine it with rich second- and third-party custom data sets, they'll be able to plan, buy, and measure their cross-channel campaigns more effectively. The next step is to start thinking about how to use those datasets to go beyond just retargeting TV-exposed consumers and thinking about how you might show different messaging to those consumers online. Or using store foot traffic data to refine a TV plan based on which customers visit your stores or make an online purchase. Or bringing in first-party data such as CRM data to connect TV viewership to loyalty program participation. What we've shown here is just the tip of the iceberg and we're excited to see what marketers come up with when they start combining their data with TV data to take the next step.

ABOUT MiQ

MiQ is an independent marketing intelligence company with the people and technology that help businesses win. It is our vision to reimagine the value of marketing by connecting data and discovering insight to drive business outcomes.

Founded by Lee Puri and Gurman Hundal in 2010, MiQ currently employs over 550 people across 15 offices located in North America, Europe and APAC. The world's leading brands and media agencies such as American Express, Avis, Lenovo, Unilever, Microsoft, GroupM, Publicis and IPG work with MiQ. In the last year, MiQ has won various awards including Fastest Growing Tech Company of the Year at the Stevie Awards, Most Effective Use of Data at The Drum's Digital Trading Awards USA, and The Sunday Times International Track 200.

Visit us at wearemiq.com