

A man with a short beard and a plaid shirt is shown in profile, smiling as he uses a smartphone. The background is a blurred office or home setting. The text is overlaid on the right side of the image.

FOUR WAYS TO IMPROVE DMPS AND CUSTOMER PROFILES

**An Apsalar POV
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INTRODUCTION

Nearly every marketer is trying to develop and implement customer-centric marketing by uniting and interpreting all of their customer data across platforms. But very few companies have actually succeeded. The challenges are quite serious:

- Enormous and growing amounts of available customer information
- Rigid internal data processes that fail to keep up with changing information needs
- Siloed data collection and nonaligned teams that make it difficult to unite data sets and platforms
- Worldwide shortage of qualified statisticians and consumer insights professionals

But perhaps the biggest challenge is that first generation data management platforms (DMPs) struggle to acquire mobile app customer behavior data and unite it with information from the PC web and other customer contact methods. Years ago, marketers might reasonably postpone addressing this challenge because in-app time represented only a small proportion of total connected consumer time. But time spent in apps now represents more than 50% of connected Americans' time, according to both comScore and Nielsen.

Moving from this difficult challenge to a workable solution requires new thinking and ideas. I'd like to use this paper as a way of identifying the necessary characteristics of a data management platform that can provide a comprehensive customer view across channels and streamlined actionability.



- Reviews data on the changes in customer behavior that are driving the need for a holistic approach to data including mobile app event data
- Summarizes the current state of customer data management and its limitations, using a simple COLLECT|ORGANIZE|ANALYZE|ACTION model
- Using the same model, it outlines the necessary characteristics of a data management platform that can meet the needs of enterprise in this rapidly changing consumer media environment

PART ONE:

HOW SHIFTS IN CONSUMER BEHAVIOR ARE CHANGING WHAT'S ESSENTIAL FOR ROBUST CUSTOMER DATA COLLECTION AND MANAGEMENT

Consumer media behavior is changing more rapidly than ever before, and mobile innovations are driving much of this change. Almost 60% of adults in the US now have a smartphone, while more than 40% have access to a tablet.

Percentage of US adults with a...

SMARTPHONE

2011 35%

2012 45%

2013 50%

2014 58%

TABLET

2011 10%

2012 24%

2013 34%

2014 42%

FASTEST
DEVICE
ADOPTION
RATE EVER

Source: Pew Research Center Internet Surveys, 2014



Share of Digital Time by Device Shifting to Mobile

People now spend far more time on mobile devices than on PC. In fact, 60% of total connected time is now spent on mobile and tablet.

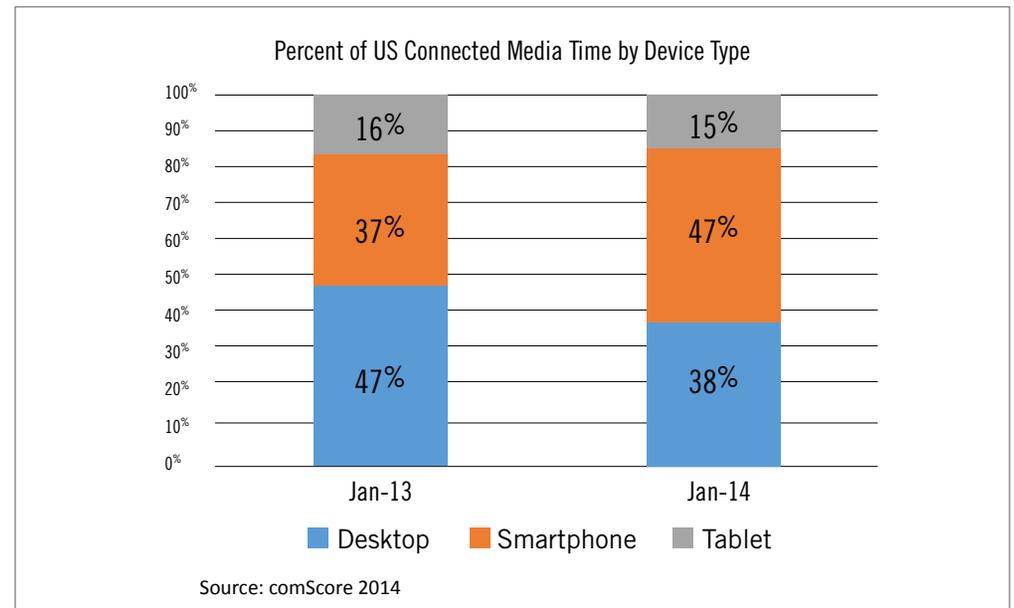
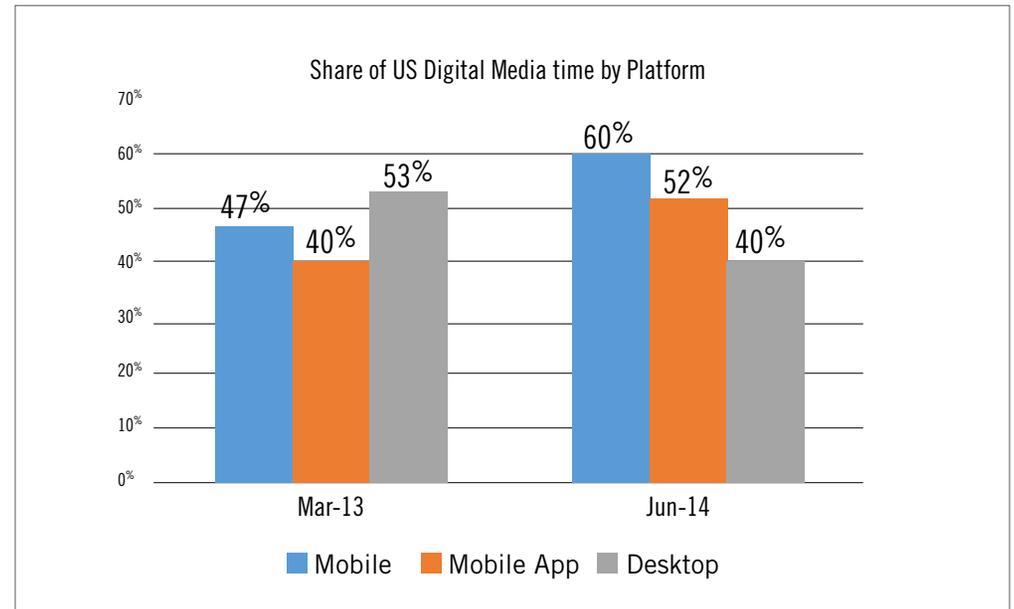
Specifically within the mobile domain, apps dominate as the places in which people spend their mobile time, when compared to mobile web. comScore says that about 87% of mobile time is now spent in apps.



Mobile Shopping Explodes

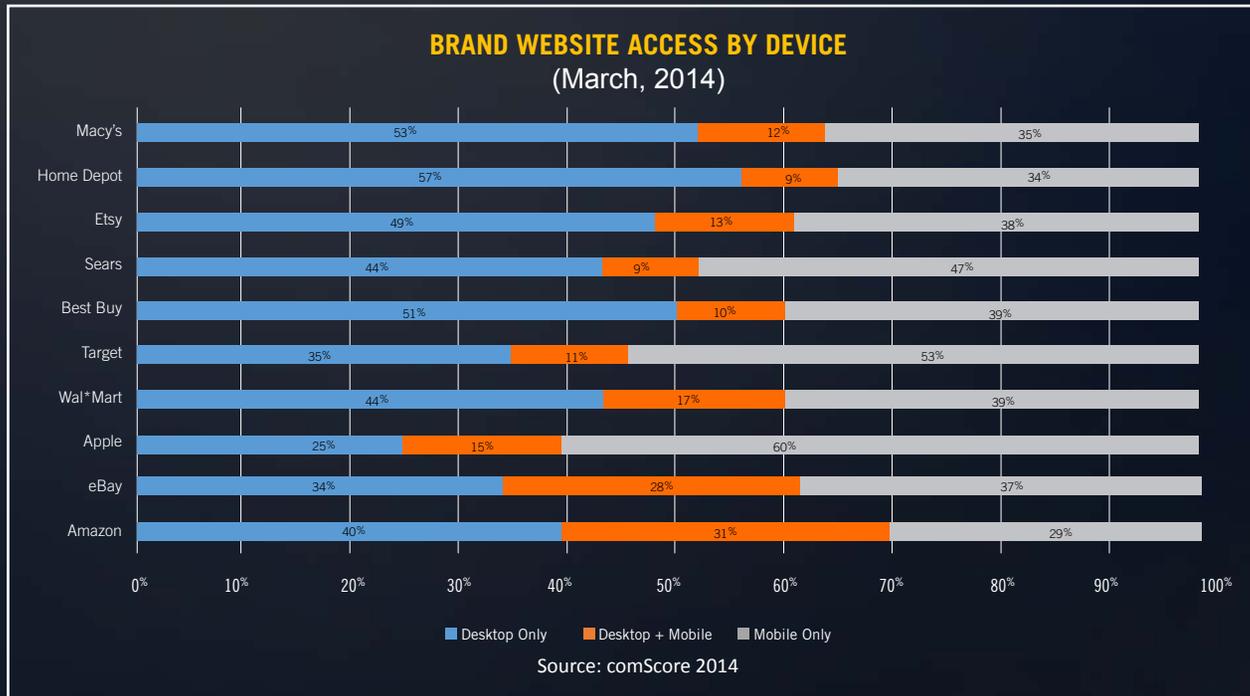
2014 Nielsen research reported that 88% of the owners of smartphones and tablets used them for shopping.

This underscores the need for direct marketers to take a cross-device view toward consumer communication. 2014 comScore data show that minutes spent shopping by smartphone now eclipse those on PC.



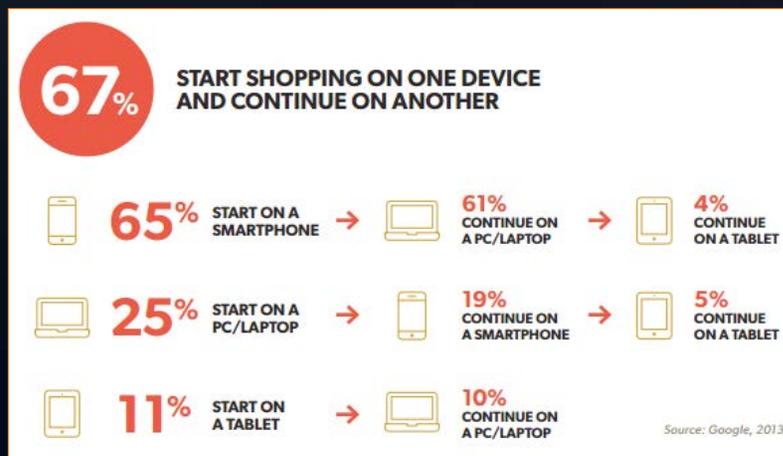
Traffic to retail websites shows a strong and fast growing population accessing via mobile only. In fact, comScore reports that several leading retailers show greater numbers of mobile only visitors than PC-only visitors.

Transactions made on smartphones and tablets now represent almost 12% of total ecommerce in the US.



Multi-Device Shopping Behavior

A 2013 Google/IPSOS research study on cross-device shopping behavior showed that two thirds of us begin shopping experiences on one device and finish them on another. The lion's share of these purchase processes begin on a smartphone.



Consumer Behavior Conclusions

Chances are, your customers are way ahead of you as regards mobile adoption. While most companies have moved slowly to address the growth in mobile app time as a percentage of total connected time, consumers have rushed in and now take care of so many things with the help of mobile apps.

As you explore approaches to address the problem, you have a simple choice – play catchup with existing DMP approaches or try and get out in front of consumer behavior by adopting a mobile-first approach to data collection and management. In essence, rethinking the DMP. When apps represent more than half of consumer time, it's clear that understanding customer behavior in those environments is the first thing one needs to do to ensure a sound data strategy, not an optional extra.

PART TWO:

STRENGTHS AND LIMITATIONS OF CUSTOMER DATA MANAGEMENT TODAY

It's useful to think about customer data management in the context of four key tasks:



Using this simple model, it's possible to make a quick assessment of the strengths and shortcomings of current approaches to enterprise data management, as well as identify the ways to address those shortcomings.



COLLECT: Where's the Mobile App Data?

In order to create persistent 360 customer profiles from your data, you need to collect behavior and intent information from ALL channels. Here's the biggest gap in most existing data management platforms that were founded in the desktop/PC world: most don't have large-scale access to event data from both inside apps and the marketing activities that drove people to install and use the apps.

Thus companies aren't including mobile app measurement in their current data collection strategy. Apps now represent the single largest channel for customer time and activity. Omitting app-related data from data management and modeling is absurd when you think about it in that context.

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Many data management providers tell customers that they "have mobile data covered," but what they usually mean is that they can collect mobile web data, not mobile app data. Blurring the distinction here is a marketing win for them – it aligned perfectly from the technology model that the established DMP players were already using in desktop. However, since apps represent almost 90% of consumer mobile time, the ability to distribute, manage, and collect data from an SDK or within-app API is the critical element of technology. Solutions that don't have a complete and robust means to collect in-app and app marketing data do NOT "have mobile covered."

STRENGTHS AND LIMITATIONS OF CUSTOMER DATA MANAGEMENT TODAY

(CONTINUED)



ORGANIZE:

Incomplete Profiles and Data Unification Challenges

Naturally, problems cascade through all of the key DMP tasks when you collect incomplete data. In addition, DMPs are generally quite good at organizing the data they have, mobile app data poses particular challenges for systems focused primarily on collecting and interpreting third party cookie data.

Instead of cookies, mobile app tracking uses device IDs which are present in every smartphone. An ID is a unique identifier that we use to connect the activity in all apps to a specific device. In order to organize app and other forms of data into persistent profiles, the DMP needs access to a device graph that determines connections between devices. A device graph probabilistically reveals all of the devices that are used by a particular individual, using signals like home IP addresses and site logins to infer the same user for a PC, smartphone, etc. Device graph companies have formed to give DMPs the backbone technology, providing their graph to whomever will pay for it.

That said, most device graph companies are themselves severely limited by the scale of mobile devices that they currently track. Generally these companies depend on other partners as mobile app data sources, either through cooperative models or via data acquisitions. Thus, the most critical and coveted asset in the industry today is a large-scale source of quality mobile (in-app) data. An SDK integration into apps enables data to be collected, but very few companies have the sort of device footprint necessary to deliver a device graph at enterprise scale, nor the manpower or knowledge to build and maintain a serviceable SDK that follows all industry partner rules, doesn't crash client apps, etc.



ANALYZE: **Incomplete Profiles and a Shortage of Manpower**

Naturally, it's rather tough for analysts and statisticians to identify patterns and insights in data that they don't have, so the cascade of issues related to the "missing" app data collection continues. But in addition, relatively few companies have available analysts trained and capable of interpreting cross-channel customer data. A McKinsey study estimated that there will be a shortage of 140,000-190,000 big data analysts by 2018. In addition, the average salary of even a modestly experienced data science professional in today's market exceeds \$100,000 annually. It's difficult for most companies to attract teams large enough to address all of their needs.

If your company has such a team of experts, consider yourself very lucky, indeed. While some have hoped that a set of self-serve reports could help bridge the gap, the reality is that many of the most pressing issues your company faces are unique to your circumstances rather than generic or cookie-cutter problems.



ACTION: **Integration Challenges, Costs and Complexity**

The final challenge facing data-driven marketers is how to make the data and insights actionable in the marketing programs that they field. Again, you cannot action insights from data you don't have, so the absence of mobile app data remains a problem at this stage as well.

But there is also the problem of making platforms work together. What we're talking about here is a massive integration problem – one that goes in both directions.

Intuitively, it probably seems like integrations shouldn't be that big a deal – after all, the developers or marketing platforms are aware that their tools work best when woven together as part of a cohesive whole. But it's actually tougher and more time consuming than you think! Then multiply the challenge times the number of different marketing platforms and tools that you use, and you begin to see why integration is such a frustration for so many companies.

In a 2014 survey of senior marketers conducted by Conversant Media, 56% identified platform integration as a difficult challenge. That's a big number, but perhaps not surprising because the average company works with 27 marketing vendors.

PART THREE:

FOUR WAYS TO IMPROVE DMPS AND CUSTOMER PROFILES

So now that we've seen the limitations of existing DMP platforms, let's define the four keys to addressing the challenges.

1 COLLECT:



Use Mobile App Data as a Starting Point in Developing Your Customer Profiles

Instead of omitting mobile app data, the rethought DMP STARTS with mobile app data. Under today's technology standards, mobile IDs show better permanence than cookies, and given the shift in consumer usage, also natively encapsulate an increasing majority of the data set. By capturing insights on the more than 50% of connected time that the average person spends in apps, we have a solid foundation on which to create 360 profiles.

You'll also need customer data from the other elements of your marketing mix- from PC web browsing data to purchase and CRM interaction information. Many companies already have proven and reliable ways to collect those sources of information.



2 ORGANIZE:

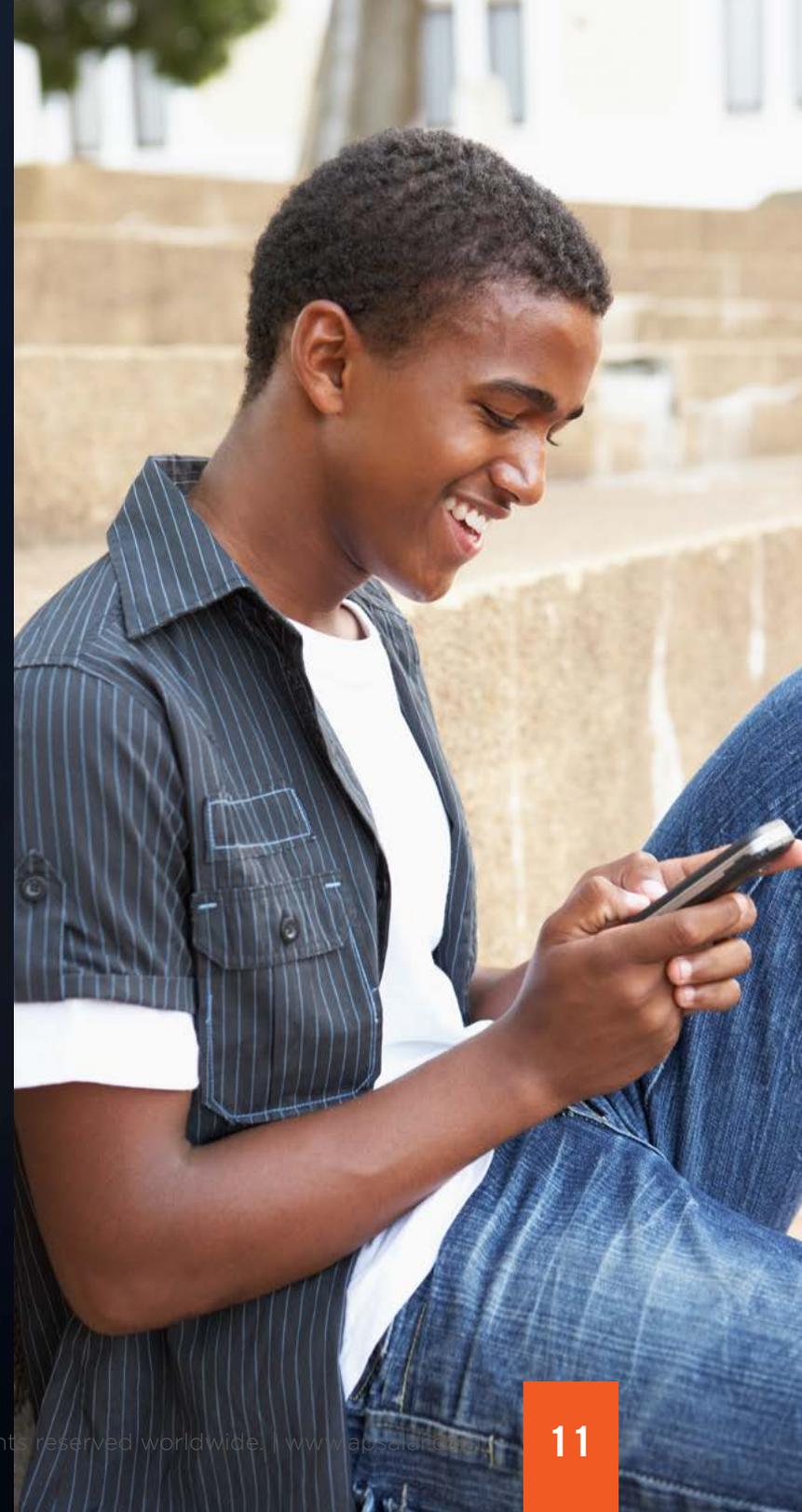


Use Mobile App Data as Your Profile Foundation and Integrate with Third Party Data Companies

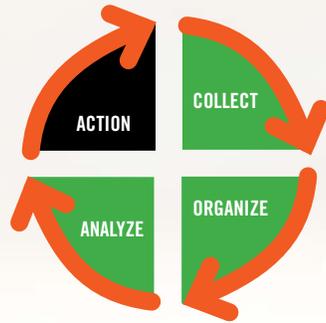
Once you have your various sets of data, you must unite them into persistent customer profiles. It is actually easier to do this when you start with mobile app data than with PC web cookies, because as mentioned previously, app data is associated with more persistent mobile device IDs (in comparison to the more-ephemeral web cookie.) It is far easier to reliably connect a device ID and the data associated with that ID to an actual person than to connect cookies to a person. In addition, the device ID is easier to connect with multiple other devices than a set of cookies on a PC because the phone travels with an individual wherever they go, providing the necessary link between home and work PCs, tablets and other connected devices.

By uniting all of your first party data, you go a long way to getting rich customer insight. You can further improve your customer understanding if you enhance your first party profiles with third party data like demographics, psychographics, lifestyle, life stage, and interest data. While expressed intent certainly carries premium value, the additional third party data augments that understanding by providing user-level context, which may be important directly in optimization, or as part of the statistical background of developing testing & measurement protocols, etc.

Enhancing your profiles with relevant third party data can drive remarkable improvement in your results because you can reflect more of the whole person in your media and creative. Therefore, the ability to integrate third party data into your customer profiles is clearly important, and the reimagined DMP should make that process simple and cost effective. Again, the platform should enable you to choose from a broad range of data sources and sets so you can get the best possible results for your marketing investments.



3 ANALYZE:



Tools and Manpower to Fill the Data Analytics Gaps at Most Companies

While creating robust 360 consumer profiles is critical, so too are tools to help you understand and segment individuals into actionable audiences. Some companies already have enterprise analytics tools and teams that are well trained in their use. Though a note of caution: tools are only as good as the analysts who use them, and understanding how your tools work is a critical detail to deriving value from them. Thus, marketers would be wise to evaluate their capabilities honestly when it comes to analytics.

To that end, other marketers will need to rely on outside resources to bring those tools to bear on their data. By choosing a flexible data management platform that can integrate with multiple analytics tools as well as one that provides qualified professional services to fill skill gaps in a marketing organization, a brand can derive maximum benefit from their customer data and profiles.

4 ACTION:



Built-in Seamless Integrations with Marketing Tools and Platforms

Data is as data does, and getting your data, profiles and high performing audiences working toward our goals matters a great deal. The best way for a DMP to help in this case is to simplify and secure the sharing of data and audiences with each of the marketing platforms that you prefer.

By focusing energies on creating the best possible integration and then making it available to every client, the DMP provider can let all clients benefit while drastically reducing cost and complexity for everyone.

Brands focus huge resources on manually integrating their data with each provider in their mix of partners. But that one-by-one, labor-intensive approach costs more and distracts your organization from its core competencies. Instead, the ideal DMP should work directly with the leading analytics, automation and other marketing platforms to create integrations that can be replicated for each client.



CONCLUSIONS

Senior marketers are unanimous in their belief in the value of a 360 customer profile informed by all of a customer's actions. But getting there really has been a challenge. But by reframing the task in the context of COLLECT|ORGANIZE|ANALYZE|ACTION and addressing the shortcomings in each area, we can achieve the goal that has eluded marketers for some time. I hope that you found this brief summary of an alternative set of approaches and principles valuable. I welcome your comments to this paper. Please write me at mattanthony@apsalar.com



ABOUT THE AUTHOR

Matt Anthony is VP of Data Science and Analytics at Apsalar, where he is responsible for the global data strategy as well as the analytics practice of the company. Prior to Apsalar, he was Senior Director of Analytics at Mediaplex, the technology & analytics arm of Conversant, where he developed and led the analytics service line of the company. Before Conversant, he served as the Director of Analytics for the eCommerce division of leading US retailer, The Sports Authority. Matt also served as Director, R&D at Datalogix where he oversaw algorithm & technological research supporting their full product line. He holds an M.S. in Statistics from Harvard University and a B.S., magna cum laude, in Mathematical Social Science from Dartmouth College.

ABOUT APSALAR

Apsalar, the leader in mobile data management, helps direct marketing brands get better marketing effectiveness by providing a mobile data management platform that delivers a true understanding of customer behavior in apps and across other marketing channels. The Apsalar Mobile DMP enables brands to measure marketing effectiveness, enhance, manage, enrich and segment profiles to build audiences, and easily and safely connect to other marketing partners so brands can confidently share their data and audiences. San Francisco-based Apsalar is privately held, with more than \$17Million backing from leading venture capital firms including Thomvest Ventures, DCM, Battery Ventures and DN Capital. For more information, visit www.apsalar.com.