





AFFINIO

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THE CURRENT MARKETING STACK IS ONF-HAND CLAPPING

It's hard not to be impressed with the Lumascape. In 2011, there were just 150 companies listed, in 2018 that number topped 7,000. The amount of money that has been invested in the last year to help advertisers reach and engage audiences and ensure publishers receive a fair price for their digital advertising is simply mind-boggling.

It's not surprising that venture capitalists are willing to invest in making digital advertising and marketing more effective. It's a recognition of the role the digital environment plays in our personal and professional lives.

But despite the massive investments, we see persistent issues that place a drag on marketing results. Consumers are misidentified¹ and therefore incorrectly targeted. Campaign results fall short of expectations, with customers uninterested in the ads they see² and wishing that ads were more relevant to them³. Frustrated, they install ad blockers (according to eMarketer, about 30% of US

consumers have installed ad-blocking software⁴) which is creating massive challenges for brands trying to reach consumers.

Why is digital advertising -- designed to reach and engage consumers with ads that are groundbreakingly creative -- falling short? The reason, which this paper will explore, is because the mar-tech stack is wholly focused on execution instead of strategy. As a result, there is a gulf left between the two vitally important teams.

No one can deny that the current execution



Why is digital advertising -designed to reach and engage
consumers with ads that are
groundbreakingly creative -falling short?

⁴ https://www.emarketer.com/Report/Ad-Blocking-US-eMarketers-Updated-Estimates-Forecast-20142018/2002044

¹ https://www.mediapost.com/publications/article/326484/advertisers-think-im-a-republican-tobacco-smokin.html?utm_source=newsletter&utm_medium=email&utm_content=headline&utm_campaign=111358&hashid=tkNy87xklr5RAW-taXHbEc199lB8

² https://www.vieodesign.com/blog/new-data-why-people-hate-ad 3 https://www.inc.com/peter-roesler/study-shows-how-consumers-expect-marketers-to-balance-data-transparency.html

ecosystem is anything less than remarkable. The Lumascape is a finely honed, AI-infused, highly iterative and heavily funded technology landscape. But without an equally powerful ecosystem for creating marketing strategy, the inherent power of the Lumascape is constrained. It amounts to blocking and tackling activities across a multitude of channels, generating massive amounts of consumer behavioral data that isn't leveraged in a meaningful way for better strategies.

Interestingly, the enterprise marketing orchestration platforms offer sophisticated segmentation tools that are rarely used. Why? Such platforms are designed for people who engage in executing the strategy developed by another team or agency. It's not their job to segment audiences, it's their job to figure out ways to reach the segments that the marketing analysts identified as valuable prospects.

NO TOOLS FOR MARKETING STRATEGISTS

While marketing execution has a great deal of technology, there are no robust tools available to help marketing strategists understand their complex audiences and build meaningful datadriven personas around consumers who are likely to be profitable customers. In fact, strategists rely on antiquated methodologies, such as panel surveys

and focus groups, as well as disparate data sets to develop personas that they then turn over to the high-tech, data-driven marketing orchestration team.

The marketing execution team must interpret those personas, determine which criteria can best reach the desired audiences using the available data sets, and then attempt to map it to some form of a syndicate audience inside the Lumascape (i.e. the buying platforms, data providers or ad networks that will enable them to reach the right audience). Disconnects between strategy and execution are inevitable.

As a result, the most sophisticated deployments are essentially "last click" buys, with campaigns targeting consumers of specific demographics who just visited a website, purchased a specific product, or exhibit some kind of behavior, such as signing on to a WiFi via a mobile phone in a new designated marketing area. Put another way, it's as if the industry has designed a Ferrari Monza SP1 to deliver messages by driving 15 feet down the driveway to get the mail. Its power is hobbled.

Clearly this needs to change. Marketing strategists need access to the insights buried inside the consumer behavioral data that's locked within the Lumascape to create data-driven campaigns. Until that happens, the Lumascape will continue to be one-hand clapping.



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Photo Above

2018 Marketing Technology Media, LLC.

https://cdn.chiefmartec.com/wp-content/uploads/2018/04/marketing_technology_landscape_2018_slide.jpg_for_details_and sources

HUGE INVESTMENTS IN MARKETING ORCHESTRATION

Much has been written about the explosion of consumer data. Just about every action consumers take, whether it's online or offline, creates new data sets, which marketers are eager to capture or purchase, analyze and activate. Today, consumer data is considered a critical commodity, one that enables marketers to "forge one-to-one relationships by offering tailored experiences and recommendations to end-consumers."⁵

Given the importance of data in every marketing, advertising and customer care initiative, it's only natural that technologists would rush in, seeking to capitalize on the opportunity. In a span of just seven years, the number of companies on the Lumascape has exploded from 150 to 7,000, all of which focus on execution.

Data management platforms (DMPs) and customer data platforms (CDPs) are seen as tools to help marketers understand their customers and prospects, but the data sets available to them are sparse. For instance, coverage of IDs are low, as are match rates of cookies to mobile IDs, or individuals to households. Worse, from a strategic marketing

point of view, there are literally millions of attributes in consumer data -- attributes that will allow marketers in a competitive market to identify white spaces in which they can differentiate their brands. But if the strategic marketer doesn't have access to these attributes in a simplified, insightful way, he or she will miss the vast majority of customer signals, particularly those that represent market white spaces. So while a DMP provides tremendous value to marketing orchestration teams, extending it to benefit marketing strategists is highly complex. While there's no doubt that DMPs, CDPs and many of the marketing automation platforms are excellent tools built on robust technology and AI disciplines, this data needs to be leveraged by strategists to maximize its impact.

This data, combined with the power of Al, must be at the fingertips of the marketing strategists. Unfortunately, at present, they have neither access to this data nor the robust tools they need to identify the white spaces of opportunity, drive better insights, and -- most critically -- map creatives to those segments.

To put this into digital mar-tech terms: there is no fully integrated tech stack available currently. As we will see in the next chapter, the front end (marketing strategy) lacks tools to segment properly, nor can the segments they do create be tied directly to an activatable audience on the backend (execution). As a result, the marketing process is broken.

⁵ https://www.forbes.com/sites/michelleevans1/2018/03/12/why-data-is-the-most-important-currency-used-in-commerce-today/#4a04a32c54eb

CURRENT MARKETING PROCESS IS BROKEN

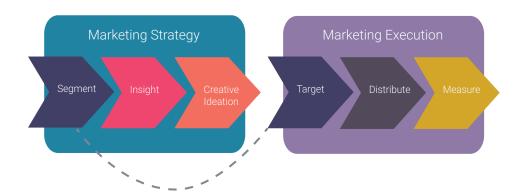


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The current marketing process has a misalignment between strategy and execution. It's worth taking a moment to understand how the process is supposed to work in order to understand exactly where the disconnect occurs.

The marketing process is divided into two broad functions: marketing strategy and marketing execution. Marketing strategy consists of creating personas and a content plan for a campaign that is typically derived through antiquated methods and "gut feel." These personas are then cast into a brief that summarizes, at a high level, the campaign goals and general audience targets (often defined by basic demographic and psychographic parameters). The brief is then handed over to the marketing execution or orchestration team to launch and manage the campaign.

The orchestration team receives those personas, along with the creatives for each, and develops a plan to target the right audience based on the directive in the brief. They may use a combination of first-, secondand third-party data to create a model for each persona. Next, working with a media buying platform or partner, the team distributes the messages to consumers based on the models they've built. As results come in, the execution team tweaks the targeting criteria and channel strategy to drive stronger performance based on predefined KPIs.



Obviously, the more the strategy side is aligned with the execution team, the better the results. Key to that alignment is for both sides to use the same segments, which was possible in the early days of television. Up until cable TV began to splinter network television, there were just a few network channels, print dailies and radio stations, which meant generic demographic segmentation was acceptable and reach was achievable, but at a premium. For instance, if a marketer wished to reach Americans with school-aged children, they could reliably do so by advertising on Mutual of Omaha's Wild Kingdom on Sunday evenings.

But the advertising world fundamentally changed in 1990, when people began going online en masse. Customer data exploded, making it more difficult for marketing strategists to pinpoint who their audiences are. For instance, Nielsen panels have historically provided insight into who tunes into shows as they air (i.e. appointment TV), but content today is syndicated via a network of distributors, and consumers watch shows on demand via a multitude of devices, including laptops, tablets and connected TVs. Consequently, consumer behavioral data has exploded, but insight into those audiences is obscured.

This complexity creates enormous challenges for marketing strategists. Strategy is based on pre-internet rudimentary segmentation tools, developed in the 1950's. Demographics are commonly used

to segment customers because this information is publicly held in databases around the world, such as the U.S. Census Bureau website. 6 While these data sets are highly accurate and readily accessible, sharing a set of demographics does not mean sharing the same needs, values or aspirations. For instance, two married women with pre-school children living on the same block share a great many demographic attributes. However, one may be a shoe fanatic who purchases new shoes on a monthly basis, while the other one may have a utilitarian view of shoes, something to purchase only when the current pair wears out. For Designer Shoe Warehouse, this is a critical distinction that demographics fail to capture and leads to poor targeting, frustrated consumers and ultimately, wasted ad spend.

Other tools include psychographics, behavioral and geo-targeting, but these too have limitations. For instance, psychographic data is survey-based, which is inherently biased. Behavioral segmentation, in theory, assumes that specific behaviors indicate an intent to purchase, and now that much of consumer behavior occurs online, it can be tracked. But single behaviors, observed in isolation, are no indication of motivations.

Consumers may visit the website of automakers to look at the new high-end models -- and even use a custom auto wizard to create a dream car -- but that is no indication of intent. Such a car may be

completely out of the consumer's economic reach, however these individuals are tagged as "high-end auto intenders" within the mar-tech ecosystem.

For global brands, strategy is complicated by the fact that demographic and psychographic data may not be available in every region they need to target (Nielsen, for example, has strong signals in the US, but not around the globe.) In these circumstances, marketing strategists must rely more heavily on any first-party data they have in these regions, as it is often the only source of data, whereas US-based enterprises have more options in terms of third-party data.

Despite these limitations, these are the only tools that digital strategists can access in order to create briefs, creatives, personas, etc. that they send to the marketing orchestration team, who, on the flip side, have access to targeting and data tools that are very granular and incredibly complex.

Because the consumer data that is used to create these strategies is too often disconnected from the consumers that are ultimately targeted, we can see that the execution teams are doing their best to interpret and match targeting strategies with little to go on. As mentioned in the previous chapter, the attributes used to define audiences by the strategists are not the same used by marketing orchestration. For instance, Affinio worked with a Fortune 500 company that was provided a 150-page brief of "ideal customer" personas from its consulting agency only

to discover that none of these personas matched any syndicated audience segments!

The marketing process is starting to resemble the childhood game of telephone, where the first child whispers a sentence into another's ear, who whispers what he hears to the next. In the end, the message is garbled and inaccurate. How is this better than the old "spray and pray" targeting methods? And why aren't we upping our efficiency game?

AI IS DEPLOYED IN THE WRONG PLACE

Marketing strategists have traditionally relied on demographic and psychographic segmentations because their profession came of age at a time when other data sets were non-existent. No brand today suffers from a shortage of data, and that data offers order of magnitude more attributes to segment customers.

And yet, they don't leverage them. Instead, the segmentation approaches used by marketing strategists attempt to classify audiences using a proiri buckets, meaning marketers make assumptions about audiences based on what they already know about them (e.g. all purchasers of

black pumps are women aged 25 to 54, therefore, if a woman is aged 25 to 54, she is likely to purchase black pumps).

This approach means that marketers will segment their customers based on who they think their customers are, and will miss valuable pockets of unknown markets that can be exploited. Thus, human bias is restricting growth for the brands.

To be sure, the execution side of marketing is well aware that they don't know what they don't know, which is why the Lumascape is focused on creating a 360-degree of the customer. Numerous mar-tech companies are working towards a unified customer record, integrating CRMs and DMPs into a customer data platform. The goal is to allow marketers to segment customers in infinite ways. It also sets the stage for "micro-moments" and personalization at scale.

But once again, these tools are designed and deployed for marketing orchestration; strategists are still creating their marketing personas based on rudimentary tools. Segmentation is largely manual, because humans have a limited ability to segment based on attributes. No human can look at a database and identify the 100K attributes that define a segment. As a result, strategy is set based on a handful of attributes the marketing strategy team has assumed were important.

The gap between segmentation means that micromoments, with all their sophisticated technology and machine learning, are reduced to last-click tactics: A consumer lands at an airport 200 miles from his home, his cell phone logs into the airport's WiFi, which then sends a signal to a hotel chain that this person may need a room for the night. The traveller may even be a loyal customer of the hotel. This is smart targeting to be sure, but what message do you send to this consumer that feels personalized, based on all the other data you already know about them? Personalization at scale is the promise of programmatic and mar-tech, but without leveraging the vast amount of data to better understand consumers, at best, the ads will feel opportunistic and not personal.

For this reason, we believe that machine learning is applied in the wrong place, and needs to move upstream. The strategy team needs machine learning and AI for better segmentation, which is possible through graph database technology.



GRAPH DATABASE TECHNOLOGY APPLIED TO SEGMENTING AT THE MARKETING STRATEGY LEVEL

As neo4j describes it, "The graph paradigm goes well beyond databases and application development; it's a reimagining of what's possible around the idea of connections."

In graph technology, graphs are made of up two elements -- nodes and edges. As examples: in a social network, the individuals are nodes and their connections to others are the edges. On the internet, web pages are the nodes and backlinks are the edges. The edges define how the nodes are connected.

Graph technology uses unsupervised machine learning to identify connections and group data points into clusters. Humans don't tell the machine what to look for, the machine's algorithms crunch through massive data sets, identifying and scoring weights to observed connections. By definition, machine learning eliminates the bias marketers bring to their audiences, which as we shall see in a bit, has strategic benefits.

We can easily see the power of graph technology by looking at the way in which Google leveraged it to revolutionize the search-engine business. In the early days of the web, all search engines used indexing algorithms to create a taxonomy of the web. They ingested data and tried to sort them into buckets, via a priori classification. Google realized that the real power of the information lay in the connectedness of websites, not the content itself. It's page-ranking methodology was built on a graph that understood the weightings of the connections between web pages. This led to massively improved search results and domination in the search market.

Google succeeded because graph technology is ideal for analyzing network data and relationship-based data sets. It excels at identifying clustering patterns within connected data sets (which is why it is heavily used in bio, pharmaceutical, network threats, fraud detection and so on). These inherent qualities also make graph technology ideal for identifying common behavioral patterns in customer data, which is just as voluminous and connected as web pages.

Rather than segment people into a priori buckets (this customer is a woman, lives in New York,

https://neo4j.com/blog/why-graph-databases-are-the-future/

therefore must have an interest in high-end fashion), graph technology can examine millions of consumer behavioral attributes, not just a few, to understand the connectedness between all of the data. By allowing machine learning to identify previously unknown clusters, marketing strategists have the opportunity to automatically identify and zero in on the white spaces, allowing them to differentiate their brands in a crowded marketplace. Rather than target the same customer segments as their competitors, marketers can identify wholly new segments that revolve around unique, common behavioral patterns, and use that insight to develop personalized messaging to a unique audience that their competitors may not have noticed. This leads to brand growth and domination in new market opportunities.

What does this mean for marketing organizations? Graph technology can automatically detect common patterns across massive data sets and cluster consumers based on a multitude of attributes. This means marketers won't miss signals, such as a pocket of customers a brand never knew it had or new emerging customer personas. Strategic marketers can also turn those newly identified pockets into segments, which can be used for message development -- and most critically -- targeting. This fact alone will eliminate the disconnect between strategy and execution.

Graph technology can also work within an organization's existing data sets and existing marketing orchestration, which means there's no need to jettison any of the expertise or partnership the execution team has spent time building. It simply looks at the existing data sets and provides better targeting criteria for the marketing execution team.

Benefits of Graph Database Technology

- Ideal for analyzing network- and relationship-based data sets
- Powerful in automatically discovering non-obvious patterns in data, especially in highly-sparse data sets
- Ideal for merging and unifying diverse data sets across common nodes (i.e. website data, social data, point-of-sale data)

CONCLUSION

At present, there is a disconnect between marketing strategy and marketing orchestration. The latter has a robust toolset -- represented by the current Lumascape of 7,000 companies -- for implementing a campaign, while marketing strategists must rely on a handful of demographic, psychographic and behavioral signals to build personas for campaign creation. The gap between marketing strategy and execution is vast, which results in less than ideal campaign results.

Marketing strategists need tools that are on par with the ecosystem that is available to the marketing orchestration team. Specifically, they need a way to capture the millions of attributes available in today's consumer data set, segment them in particular ways and easily pinpoint unique white spaces for targeting and messaging.

Graph technology, the same technology that allows Google to rank pages based on their connectedness, is an ideal solution for solving the gap between strategy and execution. It can aut matically detect common patterns across massive data sets and cluster consumers based on these unique white spaces, in order to develop the most accurate messaging and target the most effective segments.



