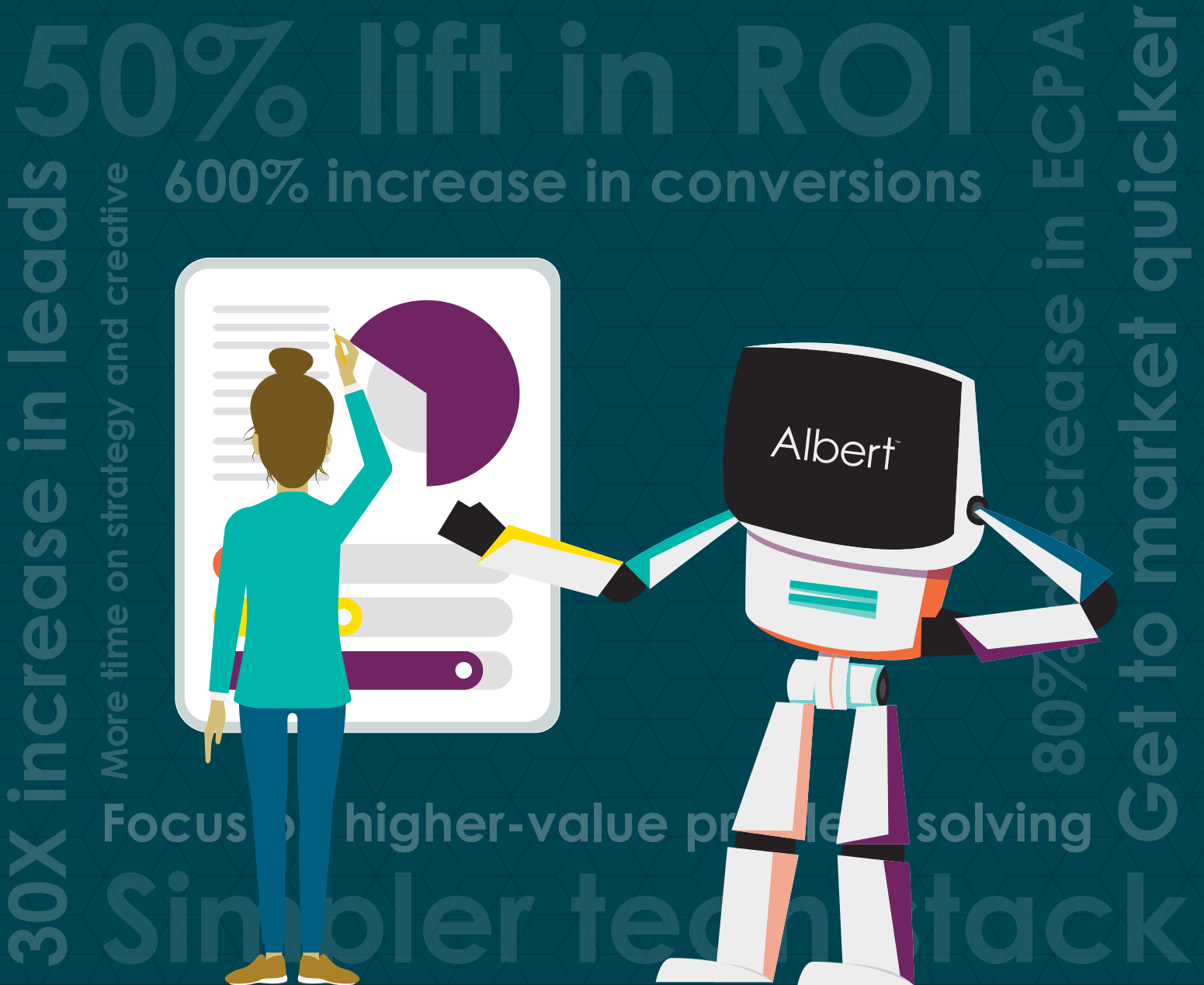


Albert™

ARTIFICIAL INTELLIGENCE MARKETING: HOW TO DELIVER EXPONENTIAL RESULTS IN MARKETING





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Marketing in the era of real-time, personalized, cross-platform, cross-device, big data-driven, everything-as-a-service, 360° virality is more than mortal minds can handle.



Introduction

Digital marketing - and specifically customer journey campaigning - has grown increasingly complex over the last two decades, thanks to an explosion of channels, devices, data, and technologies. The constantly developing marketing/ media landscape can feel like a leaky roof - and instead of plugging the holes, you could find yourself scrambling just to put all your buckets in the right places.

The amount of data available to marketers has become so overwhelming that it's no longer humanly possible to process it all at the pace and scale today's consumers expect. To meet those expectations, we must free up talented marketers to focus on higher-value problem solving by minimizing the tasks associated with campaign execution, testing, and measurement.

The de facto approach to this big data problem has been to purchase and master many technology solutions and hire people to use them, sometimes one for each new channel, device, and brand. But while each of these individual tools might promise to solve a given problem, each of them still requires a steady hand at the till, meaning that plenty of manual, time-consuming tasks remain on every marketer's to-do list. Sometimes, organizations will dedicate new hires - often without any prior marketing experience - to a single channel, just to help manage this massive suite of software. What the industry needs isn't more tools, but smarter ones. Siloed solutions only further fragment and complicate your marketing team's responsibilities. To tackle the "big data beast," the entire campaigning process needs to be automated and streamlined

across all channels, packaged in one solution that learns and expands its knowledge set as it goes.

Enter a newer, simpler, better way of marketing and campaigning: **Artificial Intelligence Marketing**

Artificial Intelligence Marketing (AI) leverages artificial intelligence-based software - including predictive analytics, machine learning, control systems and feedback, natural language processing, and other proprietary algorithms - to provide marketers with a self-driving solution for cross-channel (paid and non-paid) campaign execution, testing, optimization, analysis, and insights. An advanced computer algorithm takes your creative concept and tests hundreds of different campaign variants to find the most effective possible iteration of your idea. That means that the campaigning process is handled automatically on every channel and device, every step of the way.

So how do you put this incredibly powerful solution to work for your company? In this white paper, we'll explore what AI Marketing is, what problems and tasks it eliminates, how you can implement it, and why it consistently delivers exponentially better results to marketing departments and businesses everywhere. But first, let's see how more established digital marketing methods - for all their bells, whistles, and potential - are failing both companies and the marketers who work for them.

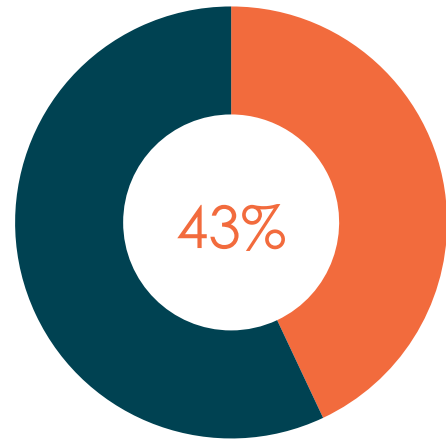


Why Artificial Intelligence Marketing Matters Now

Many of the marketing methods that were seen as exciting and advanced just a few years ago are already becoming part of a decaying past. On the paid side, problems like ad blocking and fraud have led to a [significant decline](#) in year-over-year growth for the ad tech industry.¹ Meanwhile, unpaid channels like email are still vital, but require more and more effort from marketers and data managers in order to be effective. “The increase in messages sent by marketers, the priority placed on real-time interactions, and increasing expectations by consumers to receive personalized interactions and content is forcing email marketers to evolve their craft in order to get their emails opened,” concludes a [Gartner guide to email marketing](#).²

And while consumers remain underwhelmed by current marketing efforts, marketers continue to seek out data-driven solutions to previously stated obstacles, even as data becomes more unwieldy and difficult to manage.

Companies are spreading themselves thin to collect more information from more sources for more applications, and are actually losing their ability to make sense of all that information in the process.



43% of marketers still “do not yet know what works” when it comes to digital marketing strategies.

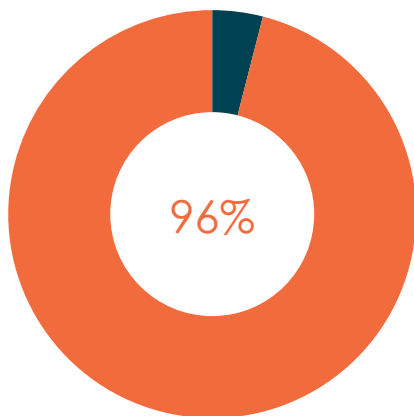
Source: [Forrester](#)

¹ Tadema, N. (2016, January 4). Ad Tech Growth Hits Speed Bump - Wall Street Journal. <http://www.wsj.com/articles/ad-tech-growth-hits-speed-bump-1451936427>

² Hopkins, J., & Sarner, A. (2015, November 30). Market Guide for Email Marketing - Gartner. <https://www.sparkpost.com/resources/white-papers-guides/gartner-market-guide-email-marketing/>

DATA SILOS

Much of this problem can be put down to the “siloeing” of data. The data collected from one channel might not communicate with data collected from other channels - this can happen on an organizational level as well, such as when one department’s information isn’t accessible to another. “Big data,” the collection and aggregation of massive amounts of data from multiple sources, is only useful if you’re able to draw correlations between different data sets. Siloeing leaves you with tons of information to sort out on your own, arguably creating more problems than solutions.



96% of consumers receive irrelevant ads or promotions

Source: [Marketing Mag](#)

A major priority for marketing teams, proper channel attribution, is one of many tasks that data silos prevents you from performing effectively. Specifically, if a user purchases through a Facebook ad, that conversion is attributed 100% to Facebook - you’d never know the value and influence of your display and search ads on that purchase. Data silos stop you from connecting the dots between

channels and gaining a holistic overview of what combination of messages and campaigns most effectively drive conversions and revenue for the business.

Siloeing can also lead you to pursue dead ends and expand campaigns that aren’t effective in the first place. A user who converted for your product through an email campaign might still be seeing paid ads on social media because your Twitter data isn’t connected to your direct mail data. That means that you’re not only irritating a valued customer with irrelevant content, but wasting ad spend on consumers who are guaranteed not to convert. It’s a problem that’s more than widespread: a Janrain and Integrated Marketing survey discovered that 96% of consumers receive irrelevant ads or promotions.³

³ Customers frustrated with irrelevant marketing messages - Marketing Magazine. (2015, April 13). <https://www.marketingmag.com.au/hubs-c/customers-frustrated-irrelevant-marketing-messages/>



CROSS CHANNEL CHALLENGES

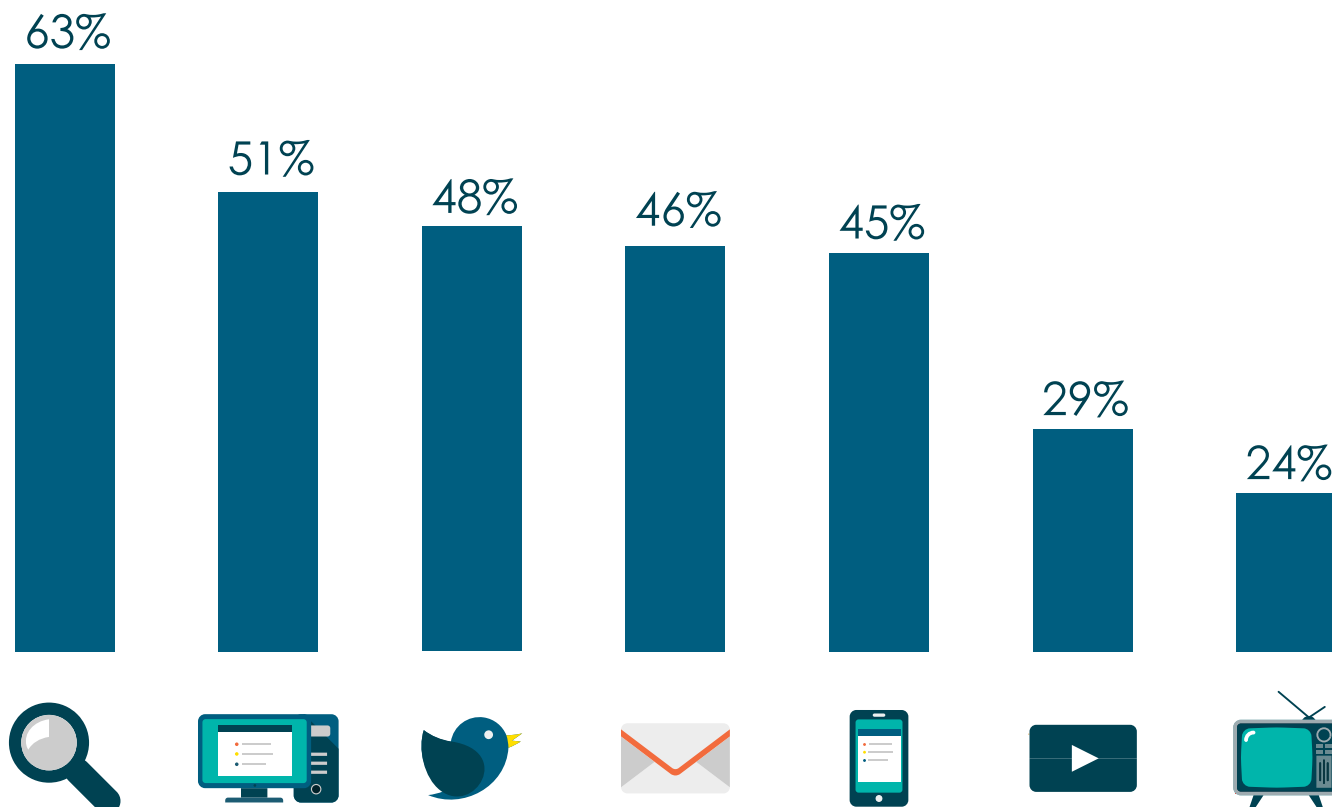
Even if data is siloed, a company usually has a good sense of which channels they have more success with. In 2015, we attended [dmexco](#), the largest international exposition for digital marketing, where we asked 100 leading brands which of the following channels was most crucial to their success: search, display, social, email, mobile, video, and TV/radio. The results, however, showed how common it is for marketers to heavily rely on more than one channel.

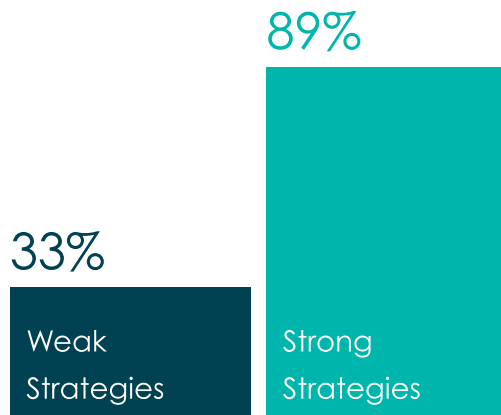
Given the degree of overlap seen below, it's unsurprising that over 66% of respondents said their biggest challenge is managing campaigns across different channels and devices. That's not a good

problem to have: companies with weak cross-channel customer engagement strategies retain an average of only 33% of their customers, according to the Aberdeen Group⁴.

Despite the numerous ad and marketing tech platforms that have arisen to manage the diverse array of media on which companies need to be active, effective cross-channel marketing is still one of the most significant hurdles companies confront today.

⁴ Demery, P. (2013, December 31). Why an omnichannel strategy matters - Internet Retailer. <https://www.internetretailer.com/2013/12/31/why-omnichannel-strategy-matters>





Companies with weak cross-channel customer engagement strategies retain an average of only **33%** of their customers. Companies with strong strategies retain **89%** of their customers.

Source: [Aberdeen](#)

So why hasn't the software widely in use already solved the problem? Many marketing platforms are siloed themselves - that is, they don't perform campaigns across channels. Marketers still have to open their AdWords account to create a search campaign, their email marketing solution to create an email campaign, and so on. Even if the campaigns you're running across channels are very similar, the manual work required of marketers is multiplied for each platform and device that the business considers relevant enough to use. At most, these tools make use of predictive analytics - very few are built on anything as advanced as artificial intelligence.

And the work required of marketers is far from simple. Determining things such as attribution and the most effective mix of channels often requires significant effort on the part of marketers, or in larger organizations, data scientists who then need to communicate the analyses and findings back to the marketing team. Manual data analysis is all but guaranteed to introduce error into the process: human analysts are less accurate, tend to use some level of guesswork, and take longer to make decisions. That means they can't deal with new information in real-time, which is crucial in such a dynamic marketing environment. Furthermore, performance across channels fluctuates constantly, and the way that budget is split between those channels is typically set on an arbitrary quarterly or monthly basis.

But just as importantly, this kind of analytical work is not what your marketers are interested in doing. Marketers are, at heart, storytellers. They were hired to focus on strategy - to determine where best to place your product, who your audience is, what messages will resonate most with them, and how to move them to action. Instead, these same people spend much of their time trying to make sense of all the information that digital media has laid at their feet. Or, as mentioned above, a team of data scientists at a large organization is responsible for making sense of this data and synthesizing it for the company's marketers, an added step in the process that can waste valuable time for the entire department.



What is Artificial Intelligence Marketing?

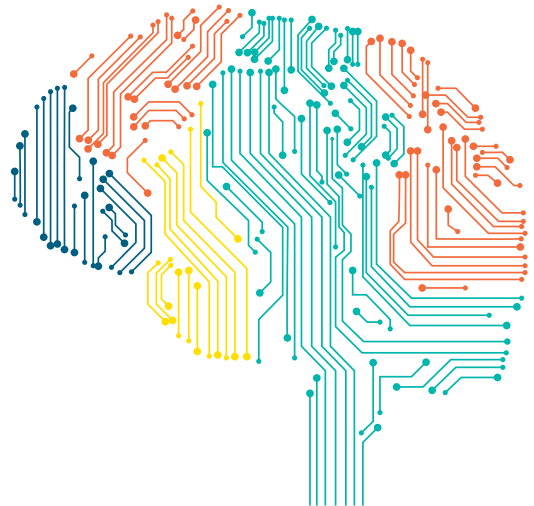
AI Marketing is a new form of marketing that runs with minimal manual input in an effort to achieve a marketer's desired KPI(s), becoming more intelligent as the software learns and grows with your business. AI Marketing solutions are self-driven and can create digital marketing interactions unassisted, using the results of multivariate tests and deep-level analysis to make better decisions moving forward.

So how does AI Marketing differ from other systems that exist today - such as programmatic on the paid media side or automation systems on the nonpaid side? First of all, while there are systems that can come up with automatic insights or strategies, only a truly autonomous system bases its suggestions on analysis of your company data and customer/target market (including learned and predicted behavior). Most importantly, AI platforms don't require human supervision to act on insights: they implement changes based on what they observe and continue to adjust based on changing user behavior patterns.

AI Marketing platforms are also reactive to changes in the dynamic digital ecosystem (unpredicted events) in ways that automated software simply isn't. If there's a viral news occurrence that may be relevant to the customer, an autonomous machine will be ready to take advantage of the online buzz. The software analyzes campaign performance while continuously scanning and sizing up external dynamic activities for anything that might be able to boost it.

ARTIFICIAL INTELLIGENCE VS. PREDICTIVE ANALYTICS

Artificial intelligence contains several elements including, but not limited to, predictive analytics and deep learning (which together comprise machine learning), expert systems made up of rules based on unique, vendor-created methodologies, natural language processing, as well as other proprietary algorithms. The combination of these elements allows a computer to observe patterns, draw conclusions from them, and adjust its behavior accordingly without the need for additional programming. Real AI marketing systems also thrive off experimentation - just like human marketers do - and can run thousands and thousands of tests across thousands and thousands of variables in a very brief window of time.



SUPERVISED AND UNSUPERVISED LEARNING WORKING IN TANDEM

In addition, the best AI Marketing systems are designed to utilize a combination of supervised and unsupervised learning. Unsupervised learning relies on the AI capabilities discussed above, which allow the system to make some decisions that a human operator wouldn't otherwise. For instance, where a human may pause a campaign once the CTR falls below a given threshold, the computer may have noticed a pattern that predicts that conversions will rise if it actually increases the bid. If conversions really do increase, it will be more likely to up the bid again when faced with a similar situation.

But it's just as important for humans to maintain some control over the system and how it learns - thus the need for supervised learning.

The system's learning component ensures that it has complete mastery of campaign optimization by allowing marketers to leverage their years of experience to equip it with a wealth of "if this happens, do that" knowledge from the very beginning. The system adapts to these instructions, automates their use, and optimizes their practices to maximize insight and efficiency. Though the AI supervisor monitors performance for the sake of insurance, the true autonomous machine is built for unsupervised learning, as long as it's provided with situational preparedness and sent to deliver ROI.

A combination of these two methodologies maximizes insight and efficiency while ensuring that marketers still have the ability to actively influence the algorithm's decisions.

PREDICTIVE ANALYTICS VS. MACHINE LEARNING

PREDICTIVE ANALYTICS

- Only as good as the data it uses
- Human operator must use trial and error to find ideal statistical configuration
- Does not adjust itself when conditions change

MACHINE LEARNING

- Success is dependent on the algorithm, not the data
- Starts with results and works backwards to identify deeply complex causes
- Teaches self to improve methods over time and adjust when conditions change

Source: [Wise.io](https://wise.io)

This combination of automated analytics and the dynamic ability to optimize in real-time allows an AI Marketing tool to eliminate or dramatically reduce the amount of manual tasks and inefficiencies that exist throughout the campaigning process while simultaneously testing thousands of variables and configurations in a fraction of the time it would take a human to do.

Without autonomous and AI based marketing, every idea you might have for an effective campaign must be tested in several iterations manually, requiring you to try out various keywords, hashtags, media placements, email subject lines, etc. and then evaluate the potential success of each one. AI Marketing takes your idea and not only tests hundreds of different campaign variants, but keeps them running long enough to determine which ones should be scaled up and which should be abandoned. This form of extreme multivariate testing will also tell you about what it's learned and what you should do with that information, as well as automatically apply those learnings when faced with similar situations in future campaigns.

When applied to cross-channel, this holistic approach can completely break down silos that exist within your marketing efforts. Virtually every decision from media planning and buying, to execution, optimization, and analysis can be fully automated across both paid and non-paid digital channels.



It's hard to overstate the impact that a tool like this can have on your marketing success. By automating much of the analytical work typically done by marketers, your company can expect to:

- Accelerate revenue and obtain exponentially better results
- Make more accurate investment decisions
- Eliminate waste and reduce costs
- Increase the transparency and neutrality of media investments
- Operate at a pace and scale not previously possible

Best of all, the fact that an AI Marketing solution is constantly working and improving its own methods means that these benefits are likely to increase over time. The more the machine learns about who your customers are and what they do, the more efficient the campaigns it runs become.

The ultimate purpose of AI Marketing is to take a humongous pool of general information - your big data - and create individualized, hyper-targeted campaigns without requiring much manual work from your creative talent. As Jeff Marcoux of the Internet Marketing Association puts it, "It's a matter of using big data to narrow in on those granular market segmentations and continuing to fine-tune an effective, personalized marketing approach that will hook and keep hooked customers."⁵

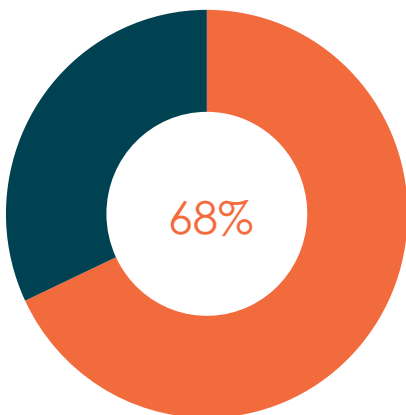
⁵ Marcoux, J. (2015, June 03). The Human Side of Autonomous Marketing - Internet Marketing Association. <http://imanetwork.org/the-human-side-of-autonomous-marketing/>



How Artificial Intelligence Marketing Works

Let's use the example of a single paid campaign for a certain pair of sneakers to demonstrate just how much of the process an AI Marketing tool can handle on its own.

DATA



68% of organizations have adopted programmatic advertising by developing closer collaboration between marketing and analytics.

Source: [Forrester](#)

A campaign with good messaging first needs a targeted audience that is statistically more likely to convert. By using an AI Marketing tool across all of your channels, you wouldn't just receive the segments that have bought your sneakers in the past, but break those segments down into hundreds

of different micro-segments, each one a unique combination of demographics, interests, and observed behaviors. This is the closest thing we have to delivering a 1:1 type of interaction today.

The algorithm not only identifies potential customers, but estimates the likelihood that they'll make a purchase, identifies the websites that they're more likely to visit and see your display ad on, and determines an appropriate bid. Using your KPIs, an AI Marketing tool can automatically discover and create the best journey and path to take, always delivering the maximum value for the amount of money your team is willing to spend.

That extends to search campaigns as well. AI Marketing platforms can research thousands of keywords, test them in small campaigns, and optimize their use according to the results - all while larger campaigns are being managed and optimized. And keywords can be tested for effectiveness with not only users, but search algorithms as well. A good autonomous algorithm will look for the keyword combinations that earn the highest quality score from Google for instance, and will therefore improve your success rate when bidding for search terms.

Artificial Intelligence based autonomous platforms add important nuance to the question of attribution and journey discovery. According to Facebook's attribution model, any time a customer purchased your sneakers through a Facebook ad, the

conversion is attributed entirely to Facebook. That same customer might have first seen a display ad a day before the purchase, and a search ad a few hours before that - yet none of that is factored into Facebook's model.

AI Marketing platforms have access to all your data streams (as we'll see later) and understand the influence that each digital channel has on an individual conversion. On the individual user level, the algorithm can learn from this conversion and target similar users with the same media mix, experimenting with occasional variations to pinpoint the most effective possible digital user journey for each given user type. On the campaign level, better attribution allows the algorithm to properly assign budget to various channels so as to maximize the efficiency of your ad spend, basing its calculations not only on pure performance numbers, but on true influence and value.

CREATIVE

An AI Marketing platform doesn't just display the same ad to the millions of users it's identified as potential customers. It automatically tests and launches hundreds of "micro campaigns," each of them structured to test a strategy that the algorithm has identified as having a high probability of success. Just feed the software your creative material, and it will create campaigns with just the right messaging and placement for each user according to everything it knows about him or her - not just at the outset, but continuously over the entire lifecycle of the campaign.

For instance, the algorithm might identify a segment that's made up of 18-to-29-year-old men who follow both sports-related news outlets and fitness

companies on Twitter and determine that it's particularly likely to purchase these sneakers. Given how valuable the demographic is, AI Marketing software will place a high bid for media space where they're likely to visit, then display messaging you've designed for audiences who buy sneakers to enhance their athletic performance.

And as the campaign goes on, an AI based, autonomous solution will adjust its approach to individual users based on new information it collects. It can identify creative fatigue in users who see the same ad too many times, and makes recommendations for new creative more likely to spark their interest. These recommendations and assessments are being considered by the solution from the campaign's initial planning stages to the moment it expires.

WEB ANALYTICS

An AI based autonomous marketing platform can immediately understand the demographics and behavior of millions of online users by connecting with your various web analytics accounts. For instance, once your AI Marketing software is made an administrator on, say, your Google Analytics account, it's able to glean much more than a few bits of administrative data about users who have already performed successful actions. The platform will be able to collect data points across various web analytics accounts, including metrics like session duration, number of interactions, and web pages visited, and put them together to form a clear understanding of how campaigns and messages are impacting engagement and driving traffic.

TECH STACK INTEGRATION

While **58%** of marketers say they want the simplicity of a single product suite, less than **20%** believe they can actually get everything they need from a single vendor.

Source: [Forrester](#)

Much of this amazing analytical ability is made possible by the ease with which an AI marketing platform can integrate with your current tech stack. If the algorithm has access to the data from your various properties (which may include a CRM, analytics platforms, price/inventory feed, and anything else that collects data integral to sales), it has what it needs to shorten the learning phase to the greatest extent possible for any given customer and offer the autonomous platform a more advantageous starting point.

Your marketers have access to a vast array of data sources, but mapping out all the data points to truly understand the customer's journey is an incredibly difficult and cumbersome task. This is especially true of larger companies: a Radius blog post points out that one company founded in 2012 now boasts 400 marketing applications⁶. Even if your technology stack is well integrated, the amount of data that marketing teams must aggregate and search for redundancies is mind-boggling.

AI Marketing platforms immediately understand every user and every one of his or her interactions

with your brand. The system builds anonymous profiles based on its interactions with different users over the course of the campaign, attributing interactions across channels, devices, instances, and times of day to individual users. This allows it to more quickly learn who these individuals are and more accurately predict their future behavior. Using millions of data points across channels, an AI based marketing platform decides where and how it should interact with them, the bids it should make for their business, and which ads they'll find most appealing.

These platforms can also integrate with data sources like your inventory management system and use them to dynamically change creative aspects of the campaign. A display ad might be able to tell shoppers where your sneakers are available near them and how many pairs the stores have in stock, as well as invite them to purchase online. These platforms are built to work with as many data sources as possible because the algorithm is capable of making better decisions with more data, whereas human marketers are quickly overwhelmed by it.

Importantly, technology stack integration doesn't just maximize the effectiveness of your campaigns, but the efficiency of your investment in them. Your company spends less time doing manual audience research and less money on campaigns with the wrong messaging, in the wrong place, or directed at the wrong users. In addition, once you begin using an Artificial Intelligence Marketing system, you'll likely be able to reduce the complexity within your technology stack by eliminating point solutions that do such things as testing and optimization.

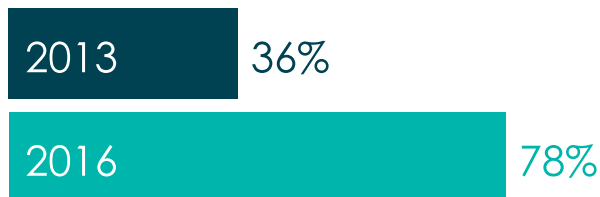
⁶ Hurley, J. (2015, January 13). The 4 Biggest Trends in The 2015 Marketing Technology Landscape - Radius. <https://radius.com/2015/01/13/4-biggest-trends-2015-marketing-technology-landscape/>



Artificial Intelligence Marketing Makes for Happier, More Productive Marketers

As we've seen, AI Marketing maximizes the efficiency of your marketing spend by making smarter investment decisions, cutting costs, and saving time, all of which contribute to increased revenue. But what might be the most appealing thing about leaving the data crunching and execution to computers is that it frees up your marketers to do the work best left to humans: telling stories and developing strategies.

Most marketers aren't trained data scientists, but digital marketing increasingly requires data science skills - MarketingProfs' reports **that the number of marketers who use data systematically has increased by 42% in the last three years:**



AI Marketing software operates as a "marketing brain" and automatically arms your team with new and fresh insights, empowers them to only work with channels that truly matter and deliver real results, and frees them up to focus on higher-value problem

solving. In that sense, it doesn't just eliminate the drudgery of spreadsheets and pivot tables, but condenses it into information that can be more easily translated into more creative campaigns.

Instead of working to arrive at some arbitrary assessment of how much money should be invested in each channel every month, marketers can look at comprehensive profiles of users on those channels and create exciting new ways to appeal to them. Rather than reams of obscure data riddled with redundancies, marketers can begin their strategy meetings with a few high-level insights to build on. Seizing a completely new audience or opportunity doesn't have to be a matter of pure chance - AI Marketing leaves no stone unturned, unearthing new possibilities where you never would have thought to look.

And the beauty of AI Marketing is that anyone can use it. Large companies with plenty of resources will be able to maximize cost efficiency and return on marketing spend, leveraging their current data pool to become leaders and innovators in their space. An overworked Head of Marketing for a smaller company can manage multiple large-scale campaigns simultaneously on their own with the help of this type of software. It's not just another analytics platform or piece of ad tech - it's the best marketing hire your department will ever make.

7 Tsui, H. (2016, April 22). What Marketers Need to Know About Data Scientists - MarketingProfs. <http://www.marketingprofs.com/opinions/2016/29777/what-marketers-need-to-know-about-data-scientists>



About Albert™

Albert is the first-ever artificial intelligence marketing platform, driving fully autonomous digital marketing campaigns for some of the world's leading brands. Created by Algorithms in 2010, Albert's mission is to liberate businesses from the complexities of digital marketing - not just by replicating their existing efforts, but by executing them at a pace and scale not previously possible. He serves as a highly intelligent and sophisticated member of brands' marketing teams, wading through mass amounts of data, converting this data into insights, and autonomously acting on these insights, across channels, devices and formats, in real time. This eliminates the manual and time-consuming tasks that currently limit the effectiveness and results of modern digital advertising and marketing. Brands such as Harley Davidson, EVISU, Planet Blue, and Made.com credit Albert with significantly increased sales, an accelerated path to revenue, the ability to make more informed investment decisions, and reduced operational costs.

To learn more about Albert, [Request a Demo](#), today.

