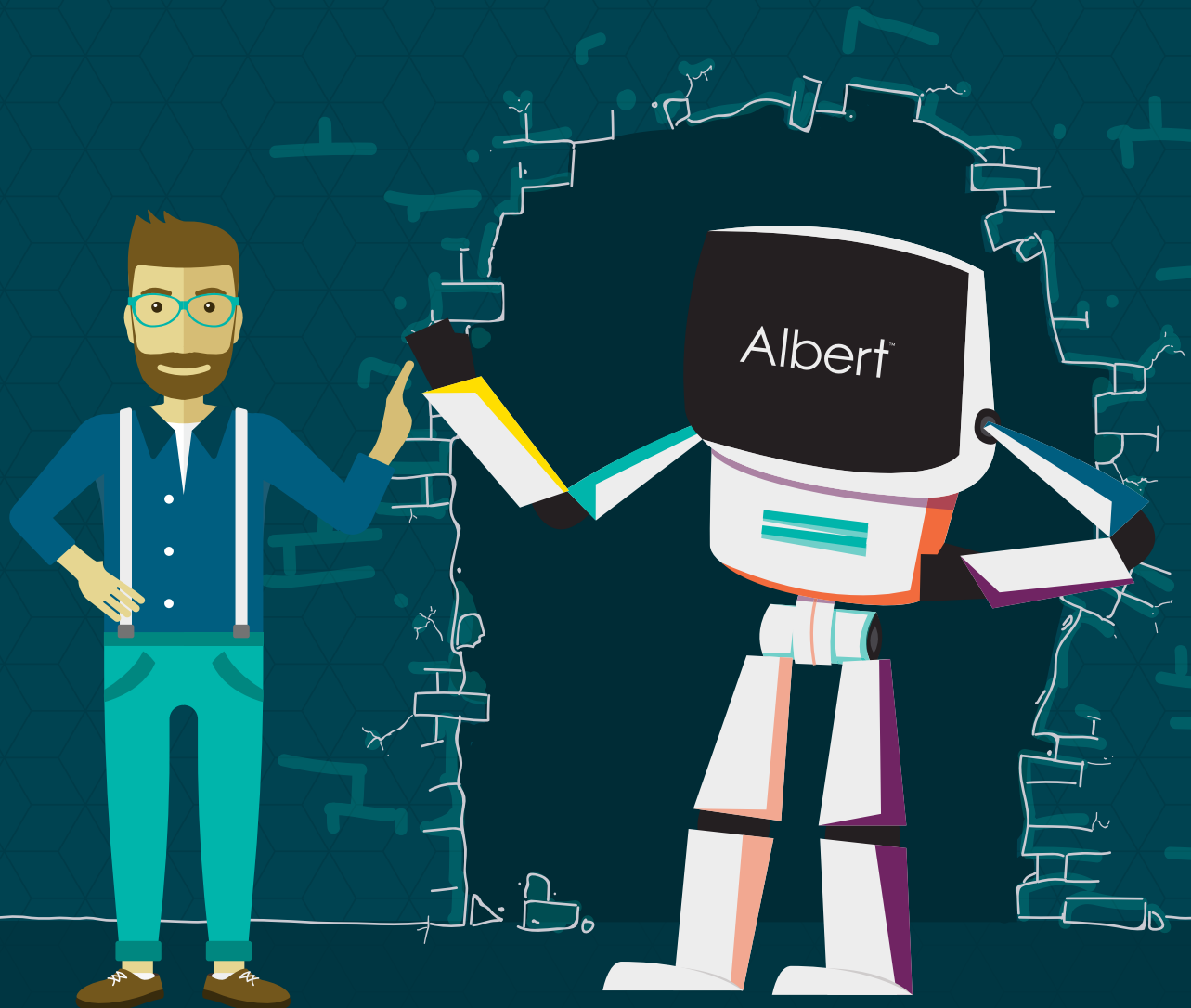


Albert™

ALBERT™ AND TRANSPARENCY: BUILDING TRUST WITH AI MARKETING





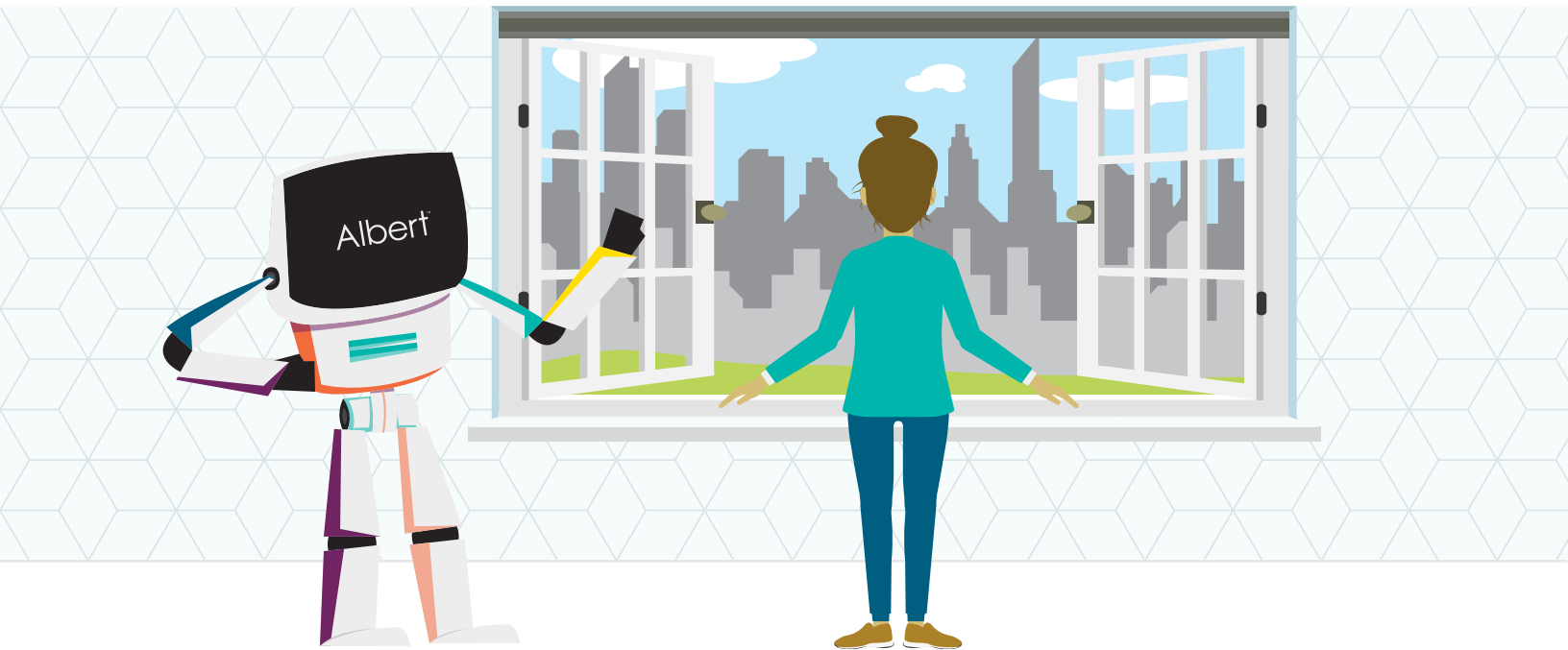
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Introduction



As artificial intelligence (AI) continues to improve, one of the most pressing issues we must address is how to locate the line that separates uniquely human tasks from those best suited to intelligent machines. We must ask not only what can machines do, but what should they do?

The struggle to answer this question is slowing the adoption of AI across a variety of sectors. In spite of its potential to transform entire industries, many businesses remain hesitant to fully embrace the technology. Even in cases where it is clear that AI can accomplish a task, there is rarely a consensus as to whether it should be allowed to do so, or at least whether it should be able to do so without constant monitoring by human managers.

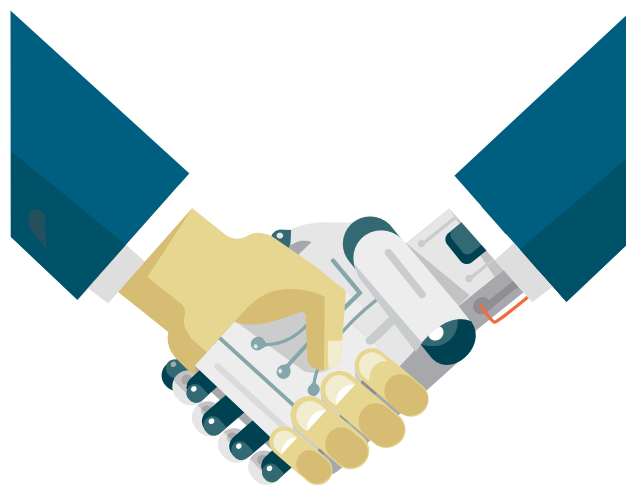
In marketing, this resistance tends to stem from a perceived lack of transparency. Many people in the digital marketing space refuse to hand over essential workplace functions to new technologies, arguing that whatever benefits are gained through the decisions of autonomous computers, are negated by marketers' inability to understand what led to those decisions. Without visibility into the details of what made certain campaigns successful so that those results can be replicated in the future, some professionals just don't feel comfortable ceding control over any operational tasks to an AI system.

Unfortunately, an arrangement like that would not only negate the value of autonomous AI altogether, but open the door to many new problems, as well.

When failures do occur through the use of AI-powered marketing technology, it typically results **not from flaws in the technology** itself, but from users' misunderstandings of how they are supposed to interact and cooperate with the technology.

Many of these errors, as well as the resistance they cause, could be resolved through a clear delineation of where the marketer's role ends and the machine's role begins.

The best applications of AI marketing technologies involve a system of checks and balances that accounts for both the skills and limitations of all parties involved, acknowledging where people and machines each excel, as well as where they each falter. We hope that after reading this paper, you'll have a new perspective of what is transparent and what isn't. Questioning AI technology on the basis of its transparency is like judging a wheel on the validity of its straight lines — it simply isn't a good metric for value.



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Data Collection and Processing



According to Samsung¹, after increasing fivefold over the preceding five years, Internet traffic likely surpassed one zettabyte — one *trillion* gigabytes — in 2016. Even more startling, Samsung predicts that by 2020 the human population will have produced 40 zettabytes of data, 80-90% of which will be unstructured. It is simply no longer humanly possible to aggregate, let alone analyze, the unfathomable quantities of data involved in running a business in the digital age.

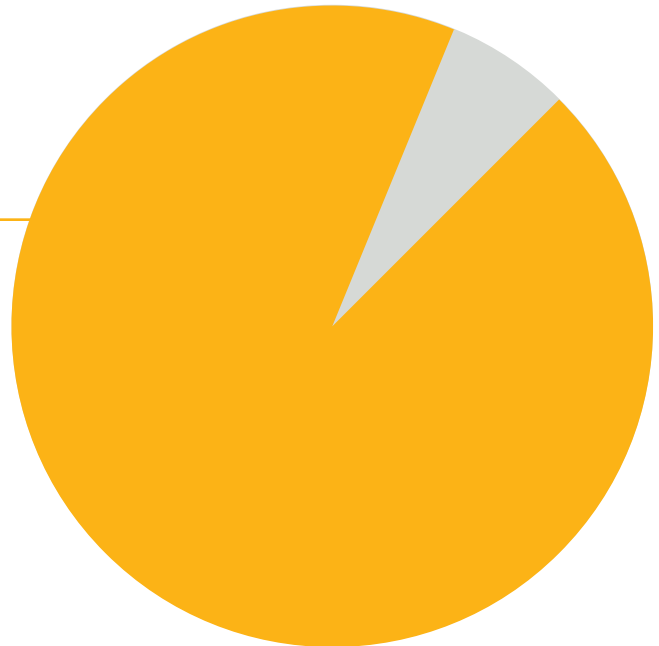
That goes double for an industry that demands as much personalization as marketing does. The modern marketer's role is to orchestrate campaigns across dozens of devices and channels, attempting to reach individual customers with messaging relevant to who they are and what they want. Achieving the near 1:1 experience that many consumers have come to expect takes not only an immense amount of data drawn from a wide range of sources, but the ability to continuously analyze it and convert it into meaningful insights about particular user groups.

¹ Holland, T.M. (2016, April 22). The World Will Use a Zettabyte of Data in 2016 - Samsung. <https://insights.samsung.com/2016/04/22/the-world-will-use-a-zettabyte-of-data-in-2016-how-much-will-your-company-consume/>

This is where AI marketing platforms come into play. These platforms combine machine learning capabilities like predictive analytics, deep learning, and natural language processing with expert systems, which are then customized to the rules of the relevant marketing sector (whether it be medical diagnostics, travel booking, or industrial services) by the vendor for application. The result is a program that is not only able to detect patterns and draw conclusions, but autonomously adjust its behavior to account for those conclusions. The benefit of AI is not the analysis or automation by itself; it's a combination of analysis on the one hand, and automation at a speed that is faster than a human could conceivably perform on the other.

In the era of big data, AI doesn't render the human marketer obsolete as much as it augments his or her capabilities. By delegating data collection and analysis to an AI system optimized for such tasks, marketers gain access to an unparalleled volume of information related to two key subdivisions: first, devices and advertising channels, and second, user / consumer types.

By 2020 the human population will have produced **40 zettabytes of data**, 80-90% of which will be unstructured.



Targeting the Right Devices and Channels & Determining How to Attribute Successes



The task of attribution — determining the relative influence of particular channels on a consumer's purchase in order to develop a statistical model for the optimal path to conversion — is still a struggle for today's marketers. Most companies are performing standard attribution, looking at data from past purchases and using it to create rules for future media bids.

But while attribution isn't getting any less important, changes to the media landscape call for a different approach. As consumers produce more and more data every second, the ideal path to purchase is too complex for any human to analyze, especially at a near-real-time rate. AI promises to upend the standard attribution model by making decisions with the highest probability of the best outcome based on constant analysis of new information.

AI'S ROLE IN ATTRIBUTION

Albert™, a fully-autonomous AI marketing platform, is configured from the ground up to execute, monitor and analyze integrated campaigns across both paid (social, display, and search) and unpaid advertising channels. By seamlessly integrating with a company's CRM and other sources of data, Albert provides clarity on the role each channel plays in reaching the company's target customers and achieving marketing objectives/KPIs, basing his calculations not on pure ad performance numbers, but true influence and value.

Further, Albert™ gauges campaign effectiveness across devices, including smartphones, tablets, and laptops, thereby adding an **additional layer of analytic complexity on top of this already meticulous cross-channel attribution efforts.**

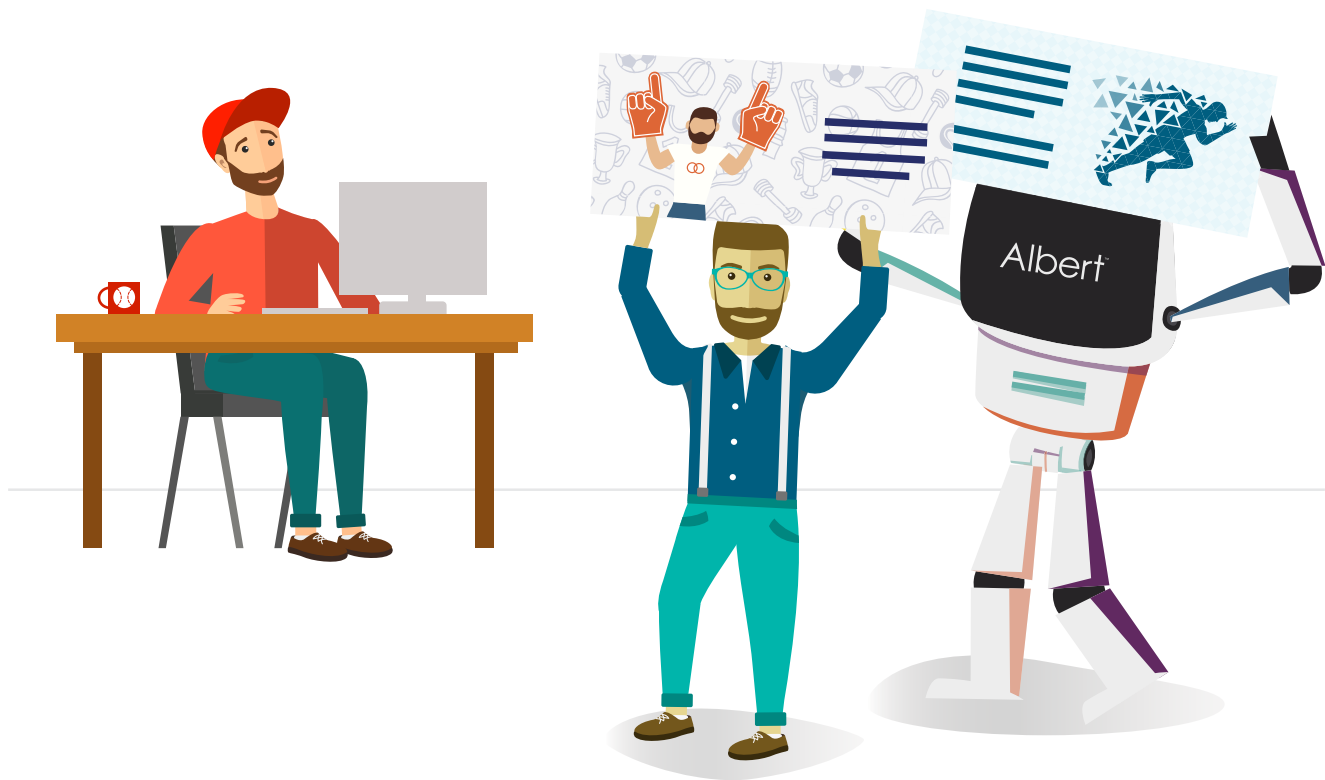
MARKETERS' ROLE IN ATTRIBUTION

By centralizing all of a company's digital cross-channel and cross-device performance data, Albert mitigates the problems caused by information siloing. This means that marketers are not only relieved of the difficult task of attributing conversions to particular channels, but share a more consistent, unified sense of what strategies and messaging are most effective in driving conversions.

Marketing teams are often assigned to individual advertising channels, and each team is left to adopt their own set of controls and metrics for whichever outreach channels they're responsible for. Even when channel-based marketers communicate well, their respective data sets remain isolated, making observation of the relative influence that each channel has on an eventual purchase or end all but impossible. This severely hampers accurate attribution, preventing ad campaign planners from allocating budgetary resources according to actual performance.

Because he analyzes all of a company's cross-channel, cross-device data simultaneously and holistically, Albert is immune to siloing and has the broad perspective necessary to understand not only which channels deserve more investment based on their influence, but also which channels are consistently underperforming or even redundant. Marketers are thus better able to understand the respective influence of each channel and can build campaigns based on this shared, unified vision of which strategies are proving most effective.

Customizing Experiences Based on User Types, Segments, and Personas



But as difficult as attribution may be, it's only one aspect of the challenges inherent in digital marketing — marketers need to grasp not only which interactions work best over which media, but which interactions work best for which potential customers.

Creating the kind of hyper-personalized, virtually 1:1 experiences desired by consumers today means targeting millions upon millions of unique potential customer profiles. That's not a task any marketing team could accomplish without some degree of automated decision-making, especially considering that real-time changes force this individualization to be performed more or less continuously.

Once again, the superhuman processing capacity

of an AI platform enables marketers to push their practice beyond its traditional limits and adapt to the prevailing big data environment.

AI'S ROLE IN CREATING USER TYPES

Unlike a team of human analysts, an AI marketing platform can aggregate both historical CRM data and up-to-the-minute campaign data.

Using geographic location, demographic factors, behaviors, and interests, Albert sorts interactions into customer segments like current clients, unconverted site visitors, lookalikes, and first-time contacts. Then, according to human marketers' preferences, an AI platform can determine which user types or "personas" within each segment represent the highest quality targets.

In the past, a number of technologies have allowed human marketers to build lookalike audiences on platforms like Facebook based on simple parameters. Although this strategy is capable of delivering large audiences, its lack of precise targeting unfortunately means that its results are not always entirely reliable. Simply because a user "Likes" a particular product, retailer, or item category doesn't mean she is necessarily any more likely to be interested in a company's marginally related product or service. Thanks to its substantial cross-channel and cross-device capabilities, however, an AI platform is able to optimize lookalike strategies and, by refining their precision, make them as effective and efficient as possible.

For instance, when put to work for an activewear company, Albert would not look at all Facebook users who follow sports content publishers like ESPN or FOX Sports and a handful of professional athletes. Instead, he would investigate the sub-segment of those users who also had interacted with ads for retailers like Nike or Columbia Sportswear. Plenty of sports fans are just that: fans. But those users who engage with sportswear retailers are far more likely to be interested in purchasing activewear.

Once this winnowing takes place, Albert would continue to monitor the ad performance of both the company and its competitors within this sub-segment and develop hyper-targeted recommendations for how to best convert these consumers.

MARKETERS' ROLE IN CREATING USER TYPES

Provided with this stream of insights about their consumers, marketers are able to fill in the blanks that characterize each user group, matching needs, aspirations, and personality to the collection of data points provided by the AI program. They now also have the opportunity to strategically invest additional resources where appropriate and even see where they may need to craft new or updated creative materials to fully engage an underexploited consumer segment.

Cross-channel marketing is only as effective as a marketer's ability to understand consumer behaviors across channels and apply that understanding to all channels going forward. Albert does the heavy lifting by analyzing customer data from each channel and linking its findings to unique non-Personally Identifiable Information (PII) data IDs. Meanwhile, marketers approach each of the user types that Albert discovers with a unique set of creative material designed to get their attention. In a world with zettabytes of data, this is as close to a 1:1 experience as we can get.

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Decision Framework



While there is no question that AI platforms offer marketers previously unimaginable levels of data aggregation and analysis, what sets AI apart from other marketing technologies is not the insights it pulls from data, but its ability to act on those insights.

As users interact with your campaign and content, and produce new data, marketers must account for the insights that new data produces in real-time in order to maximize the campaign's impact. But in a marketing landscape where conditions are changing every second, it's impossible to quickly make decisions that properly account for every relevant variable.

A true AI platform like Albert makes it possible to automate this kind of rapid decision-making — at his core, Albert is an execution-based system. Other AI technologies, though powerful in their own right, are strictly analytical “minds” for hire — marketing teams feed them selected data streams, the platform analyzes the information, then spits out insights. But these tools do nothing to actually put those insights into practice.

Conversely Albert functions more as a fully functional marketing team member, handling the all the analytical while also applying his insights to active campaigns, all while remaining within the boundaries set by his human supervisors.

Autonomous Action on Insights

As soon as Albert is unleashed on a campaign, he surveys its entire history and quickly determines what has and hasn't worked in the past. In a matter of moments, he understands what makes a consumer segment tick, as if he'd been an integral part of the campaign from its inception. After aggregating and analyzing all of a campaign's cross-channel, cross-device data, Albert takes this knowledge and crafts thousands of "micro-campaigns," or distinct combinations of messaging, frequency and channels tailored to the needs and behaviors of individual personae. While following the parameters and restraints fed to him by human marketers (including things like spending limits and blacklists for media placement), Albert tests each of these micro-campaigns in the field.

By executing high-volume, multivariate testing, Albert is able to pilot thousands of micro-campaigns at once, scaling up variations that work and abandoning those that don't. Unlike even the most efficient and dedicated human marketers, Albert

can optimize customer targeting in real-time, 24/7 learning from his past decisions and incorporating these insights into future micro-campaigns. This means that a consumer may see a different ad at 1pm than she saw at noon, simply because Albert was able to further refine his understanding of her behavior over that short interval.

Through this autonomous decision-making and evaluation cycle, Albert can effectively assign budget to various channels in order to maximize the efficiency of a department's marketing spend. That frees human marketers to dedicate their time to big-picture strategy, creative, and design tasks — things that require the emotional, intuitive, and subjective skills that artificial intelligence doesn't bring to the table.

Traceable and Transparent Decision-Making



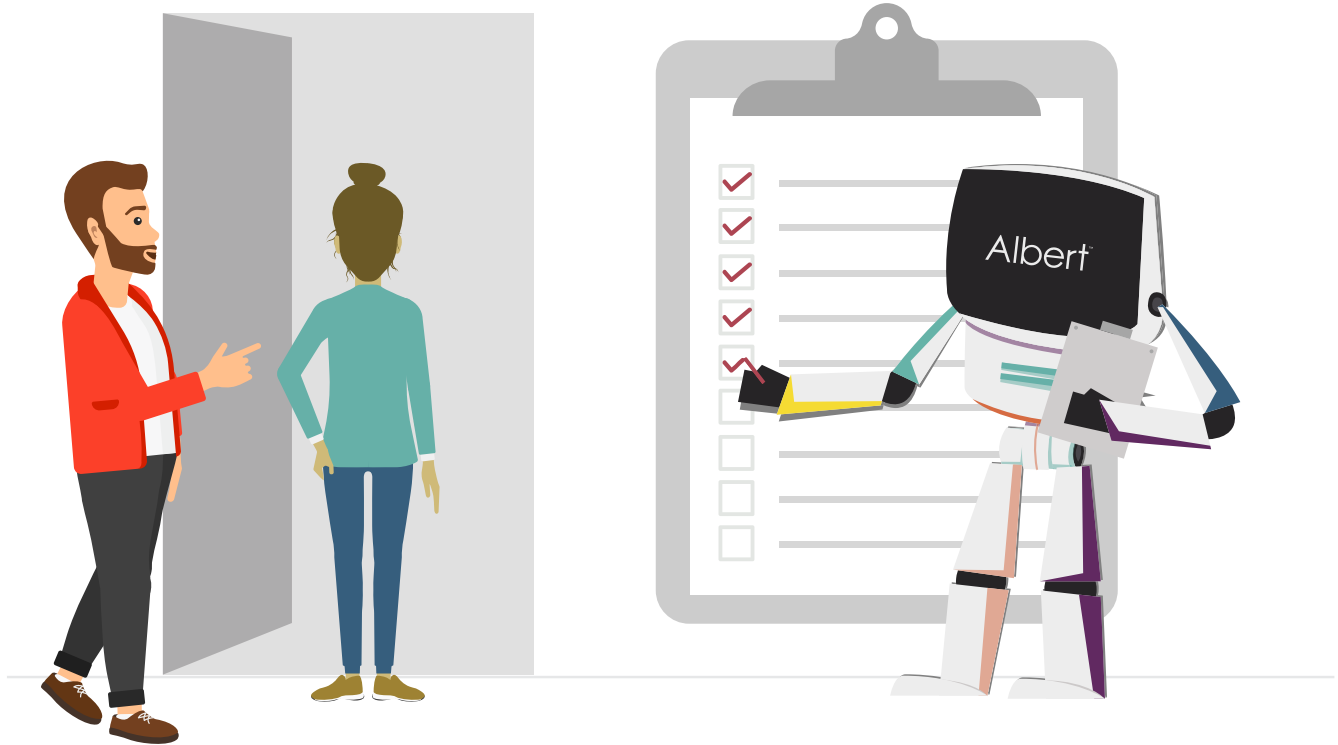
But while Albert is capable of autonomously making thousands of decisions that affect the success of campaigns every day, that doesn't mean that marketers are ceding all control over how those campaigns are run. Albert is fully autonomous, but he is also both fully obedient and transparent.

At the outset of a campaign, human administrators set strict guidelines and codes of conduct that serve as constraints on Albert's decisions. If a marketer is concerned with or confused by a decision that he has made, he can show the marketer the micro-campaign testing that led him to that action, the relevant historical outcomes, and any number of other revealing data points in order to offer the marketer a window into his decision-making process.

Ultimately, Albert is designed first and foremost to be a transparent tool. Unlike blackbox technologies that simply give marketers an output without supporting it, Albert is a glassbox tool, meaning he's able to provide context for his decisions. The key to success with any glassbox marketing technology is to strike the proper balance between transparency and autonomy, working to determine a few key parameters essential to success and leaving the rest to the algorithm.

Initially, it may be difficult for marketers to cede control over the execution and optimization of digital campaigns. But by fostering an atmosphere of transparent human-machine collaboration, objectives that were once unattainable can be put well within the reach of your marketing department.

Onboarding AI Technology



It's clear that the success of any AI-driven marketing campaign depends on a spirit of trust in, and understanding, of the tools capabilities and limitations. Building that sufficient trust depends in large part upon an effective and patient process of familiarization and training, one that highlights how vital the input of trainees are to the success of the AI platform that they will be supervising.

For precisely this reason, we host a kickoff meeting before beginning work with any client, helping us to get a feel for who they are, who their customers are, how their business works, and what their marketing profile or "personality" is. From day one, we actively advise companies navigating the transition process and provide a day-to-day support structure to help work through whatever changes the companies need to make before they're able to take full advantage of Albert's capabilities.

Many clients quickly accept that Albert uses deeply complex heuristics to make decisions, while others want deeper visibility into everything he thinks and does. For these more inquisitive marketers, Albert includes an Insights Module that features a running dialogue of key observations and insights, which can take any number of forms.

For example, Albert might notice that one campaign is performing exceptionally well with a certain audience demographic and suggest a strategy to deliver ads to that consumer segment. He might alternatively alert marketers that a piece of creative is a bit outdated, noticing that it is underperforming regardless of its contextual relevance. In short, the Insights Module programmed into Albert explains to human marketers not simply that a campaign is successful, but why it's successful and how he got to that conclusion.

Taken collectively, these features and resources make it far easier to for marketing teams to develop a strong partnership with Albert, but companies should take care not to become too concerned with total control. Albert can provide any information that his supervisors request, but the volume of data being processed on a daily basis means even those who constantly monitor Albert's activity will only scratch the surface of his workload. It's perfectly reasonable to allow some time for marketers to adjust, but at a certain point, they should be able to loosen the leash and let the AI do its work. Only then will Albert's full potential be realized.

It's critically important that marketers understand that they will remain in control of all major decisions involving big-picture strategy, creative vision, design, and of course, budget. Albert will take over many of the decisions that digital marketers are used to making, but he's not going to invest in channels that his supervisors haven't authorized. He's not going to exceed the budgetary limits for given campaigns or channels set by administrators. And, most certainly of all, he's not going to be taking any marketer's job.

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Conclusion



According to¹ wayve Founder and CEO Jamie Evans-Parker, "The AI ad revolution is in its infancy but it won't be long before its potential to improve production, expand programming, refine targeting, and clarify performance sees it become more essential to those in the advertising industry than the trusty smartphone." That being said, technology has yet to change the fundamentals of advertising, as an effective marketing campaign still boils down to placing the right ad in front of the right customer at the right time.

AI marketing platforms have changed the way that campaigns are launched and optimized, making decisions at an unprecedented pace and scale. What cognitive technologies cannot do, however, is craft "the right ad." Marketing is, at its heart, about storytelling, and that's a skill that artificial intelligence simply isn't capable of mastering. If marketers commit to forging open, transparent, and collaborative relationships with their AI platforms, they will not only improve campaign outcomes, but also find themselves with more time to focus on the distinctly human aspects of their job — strategizing, creating, and designing.

¹ Evans-Park, J. (2016, October 7). The AI ad tech revolution is on the way - The Drum. <http://www.thedrum.com/opinion/2016/10/07/the-ai-ad-tech-revolution-the-way>

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About Albert™

Albert is the first-ever artificial intelligence marketing platform for the enterprise, driving fully autonomous digital marketing campaigns for some of the world's leading brands. Created by Adgorithms 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, Cosabella, 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.

