NECTAR·9

Digital Marketing
in the age of AI

Scaling customer acquisition and
growing revenues with AI-powered cross-
channel marketing automation

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Contents

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Making the Case: How IMVU uses AI to Drive 3.5X Lift on Marketing KPIs

Unlocking the Power of Data with AI-based User Journeys and Cross-Channel Optimization for IMVU

At IMVU, we recently analyzed user journeys to explore what organic behaviors resulted in the most valuable players or purchasers in our 3D social networking app. One key insight became very clear: if we can get someone to make an in-app purchase within the first seven days is a significant indicator of higher lifetime value.

In addition, users interacting with different features and exhibiting certain behaviors within IMVU proved to be good indicators of what leads to a purchase. Our goal was to increase customer lifetime value (CLV) and create incremental lift over organic purchases.

ABOUT IMVU
IMVU is the #1 avatar-based social network where real life comes to play and a top grossing social networking app.

To put the insights from this study to work, we segmented our customers into three primary groupings:

- People who installed the app, but didn't register
- People who were on a "First Seven Days" journey
- Lapsed purchasers

Taking the insights from our user journey study, the team then created a host of creatives for each segment grouped by where they appeared to be in their user journey.

Here are the "winners" for us at each stage in the sequence, displayed on the next page:

UA & MARKETING: BEAUTIFUL SCIENCE

Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8-9
Change your look, get credits	Redeem Free Credits	Explore Chat Rooms	Interact with Friends	Visit our shop and shop top creators	Explore the Feed, share self expression	Earn free credits with offers	Time is running out!	Has not made a purchase after 7 days
Change up your Look. Shop without limits. Get 4000 Credits Free, Join IMVU® Now!	Did you redeem your free 4000 IMVU Credits?	IMVU chat rooms are where the magic happens. Head to your favorite chat room to get the hang of it.	Got friends? 👫 We're here to help you break the ice. All you have to do is say hello. ⭐	Change your Avatar today 💙 Visit our Shop and choose from thousands of products by our top Creators. Try this outfit inspo by top Creator Izis	IMVU is all about self expression 🖼️ The more you share, the more you say. Time to add your IMVU moments to the Feed.	Earn FREE Credits in a pinch anytime by completing our fun and EASY partner offers. Once you reload your account, head to the Shop. Take two of what you like and selfie us in the morning. 🛍️	Not much time left: Get 1,000 Credits for only $0.99 today!	New Contests, Free Credits! Get back on IMVU so you can enter to win. Enter now for a chance to win 10,000 Credits. Join us this weekend as we dress up. #WITCHES

Adding Autonomous Marketing from Nectar9 to Boost Revenue & Drive Customer Lifetime Value

We then leveraged Nectar9's Athena Prime autonomous marketing platform to orchestrate and automate the delivery of sequenced ads on multiple channels in a synchronized way to get optimal results.

Typically, executing this type of sophisticated campaign with a complex array of audiences, channels, creatives and dynamic sequencing using manual processes is challenging to say the least. But artificial intelligence is making it possible to identify the right sequencing for different cohorts of people at different stages of their lifecycle.

The application of AI has allowed us to run full lifecycle user acquisition and revenue generating campaigns benefiting from thousands of experiments across these cohorts. The reward of taking this approach has been an incredible 3.5X improvement in new Cost per Payers and ROI:

UA: AI & MACHINE LEARNING
Started in June 2018; Significant Gains in Efficiency

3.5X IMPROVEMENT IN CPP & ROI

CPP vs. Month
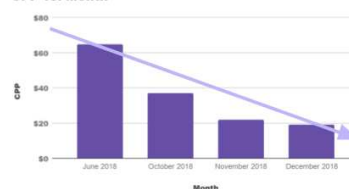
ROI vs. Month
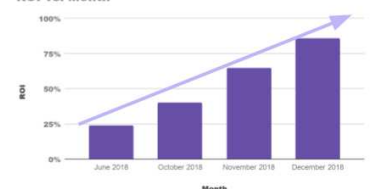
Iterative Parallel-Time Testing

The massive scale with which we can experiment, learn and optimize messaging throughout the user journey simply isn't possible (or worth the time and effort) without an autonomous marketing engine like Athena Prime from Nectar9. We can test, learn and iterate at a much faster pace to quickly identify what works and what doesn't across creatives, audiences, messaging and more. It allows us to better target people with the right ads and messages based on where they are in the IMVU lifecycle, encouraging them to take actions that naturally lead to higher lifetime value.

Specifically, all of this orchestration and automated learning drove 46% lift compared to the control group when driving in-app purchases:

Cumulative Total purchase_credits value per unique user

⊘ Control 0.02

✓ Enable Free Credits_InMob_Webhook_2_ANDROID ▲46% (0.029) - Significant
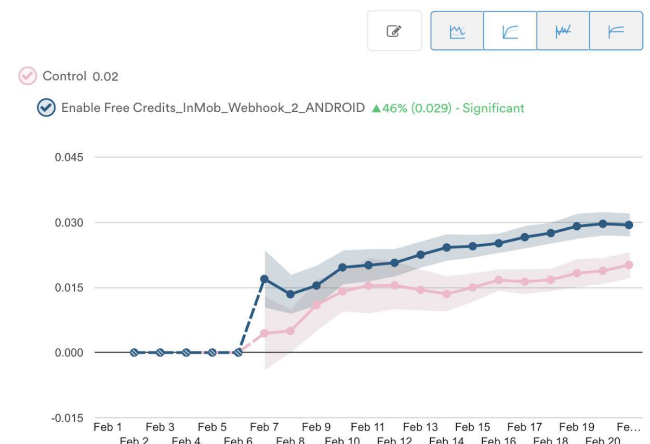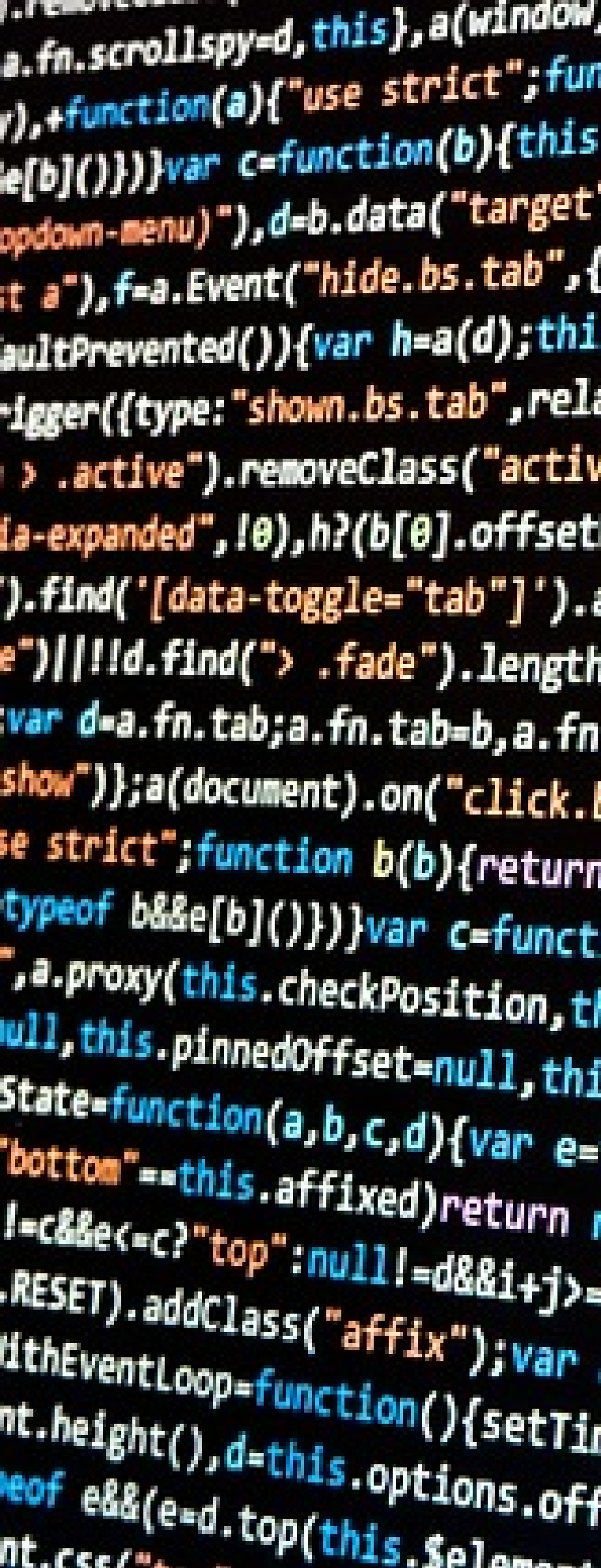
Applied AI from Nectar9 Delivers Results

Let's review the business processes at play here and the application of AI to drive meaningful optimizations and outcomes through large scale experimentation. Starting with our overall strategy, we set our objectives (desired outcomes), creatives, and any other campaign constraints. We then get segmentation data from our data warehouse and CRM sources, along with custom audiences we've developed over time. Athena automates blending segmentation models with cross channel message placement automatically explores, observes and optimizes for the right business outcomes.

From there, we seek further potential audience or creative insights, update our approach and the cycle goes on.

UA: AI & MACHINE LEARNING
Leveraging ML capabilities' split tests of different variables across audiences

ML Machine Learning
Learns the audience demographic & uncovers new opportunities: "content that finds people."

AI Artificial Intelligence

Intelligently (& rapidly) testing content variants

What's happening behind the scenes as artificial intelligence orchestrates cross channel experimentation? You can think of it like split tests of different variables across multiple digital channels -- but on steroids.

AI-Powered Insights Delivery

Here, we've intelligently running rapidfire content and audience experimentation and learning in a way that in away that uncovers new opportunities to present the right content to the right people at the right time, and taking action in the instant. What did we take away from all this? Besides dramatically improved performance and efficiency, we gained insights into the best performing creatives and segments.

For our lapsed purchasers segment -- defined as anyone who made an In-App Purchase in the last 180 days but not in the last 30 days -- we learned that there were two kinds of content that worked best:

- Highlighting content from IMVU's most influential creators, essentially creating a showcase of products from the best of IMVU's creators.
- Weekly contests, in which users can participate to win free credits, proved very popular and did a great job of attracting lapsed users back both to participate and purchase again.

We also learned that our Day 1 Users were motivated by a simple message: reminding them that they can redeem free credits to get started. This engaged them in the app and encouraged them into the flow of becoming a high lifetime value customer.
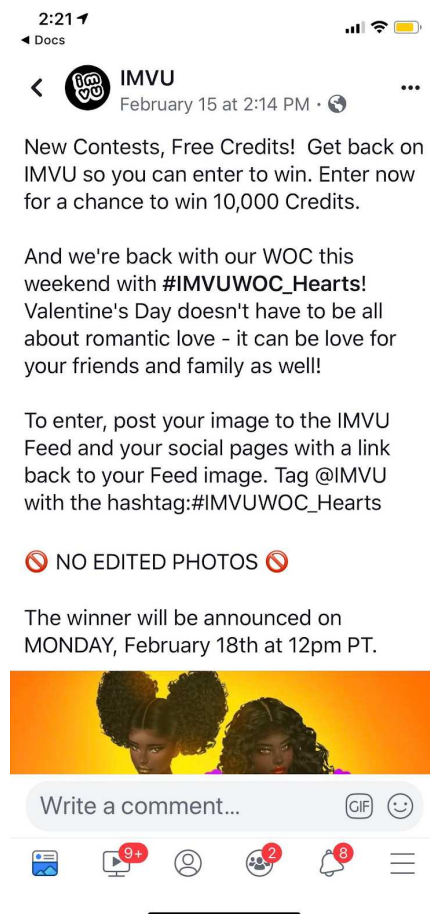
Final Thoughts: Scaling Growth & Revenue with Autonomous Marketing

Unlocking the Power of Data with AI-based User Journeys and Cross-Channel Optimization for IMVU

Scaling growth doesn't come easy and let this be your roadmap to maximize your Lifetime Value (LTV) by always running sequential tests for different cohorts at different stages throughout the entire user journey.

To turbo charge your performance, consider working with, or building, an intelligent AI machine to help you automate the key levers like blending segmentation models with cross channel creative placements, to get data-driven results far beyond manual capabilities.

In the remainder of this paper, we'll explore additional practical thoughts around applied AI in the realm of digital marketing, understanding the basics and explore build-vs-buy options.

Finally, we'll explore additional questions any enterprise should explore as it embarks on this next exciting stage in the development of marketing automation technologies.

A Brief Introduction: **the AI Handshake**

Marketing in the age of Intelligent Machines: Autonomous Marketing

Today's digital media environment is changing quickly. And with the rise of autonomous marketing - powered by intelligent machines - change is set to accelerate in 2019 and beyond.

Get Ready for the AI Handshake
As marketers, we have the ability to collect massive amounts of data on our customers and prospects, understanding their behaviors and influencing their actions.

Major marketing platforms like Facebook and Google observe our customers and prospects more broadly: these platform vendors track web sites they visit, the apps they use, the routes they travel, where they spend their time, their shopping habits and much, much more.

To stand apart from your peers in today's AI-powered marketing environment, your company will need to learn how to incorporate machine learning and artificial intelligence into the marketing mix to take advantage of all the data you're collecting as well as the AI developed by platform providers. Your smart systems will also need to learn how to communicate most effectively with the smart systems from platform providers.

In this paper, we'll explore how IMVU applied AI-powered autonomous marketing from Nectar9, Inc. to radically improve customer acquisition costs and revenue generation. We'll also explore the state of AI-driven marketing automation and other related topics of interest to marketing executives evaluating this new breed of marketing technology.

Entering the Realm of Artificial Intelligence & Machine Learning

Major media platforms like Facebook and Google provide compelling out-of-the-box user acquisition (UA) solutions. There's only one problem: if everyone has the same out-of-the-box solution, how will you ever be able to outperform the average?

That's why, in 2019, it's time to adopt a better cross channel strategy. Bear in mind that means you're signing up for something that adds a level of complexity and automation far beyond what business intelligence reporting systems can deliver.

It's time to turn on the intelligent machines.

Just like good user experiences are personalized for an individual's needs, the future of UA will be won by people who can adapt each platform's out-of-the-box solutions and capabilities to fit their needs, objectives and goals. This requires a holistic cross-channel approach, which massively increases operational complexity — from data driven targeting to creative proliferation to attribution and performance optimization. And with complexity comes exactly what you don't want: risk and uncertainty.

Sooner rather than later, your UA efforts will rely on artificial intelligence, machine learning, and automation to adapt, customize, and personalize cross channel user journeys and deliver optimal results.

"With Nectar9, we're doing cross-channel optimization today in ways that would be impossible using last generation business intelligence software or reporting dashboards."

Managing complex, cross channel campaigns with multiple targeting, creatives and sequencing requires an intelligent operational layer above the out-of-the-box solutions provided by individual platforms to deliver great results.

Most companies find a comfort zone with one or two major channels and skip the rest. But each of the big platforms have different advantages. Snap skews younger. Pinterest has a higher composition of women in their audience. LinkedIn is where people conduct business activities. Instagram's core audiences are highly engaged and tend to interact on the platform, which is great for educating consumers and building audiences. Pinterest is a place people go for discovery. Search is all about lower funnel intent. Taking this all into account is important as you develop your strategy.

Athena AI Platform
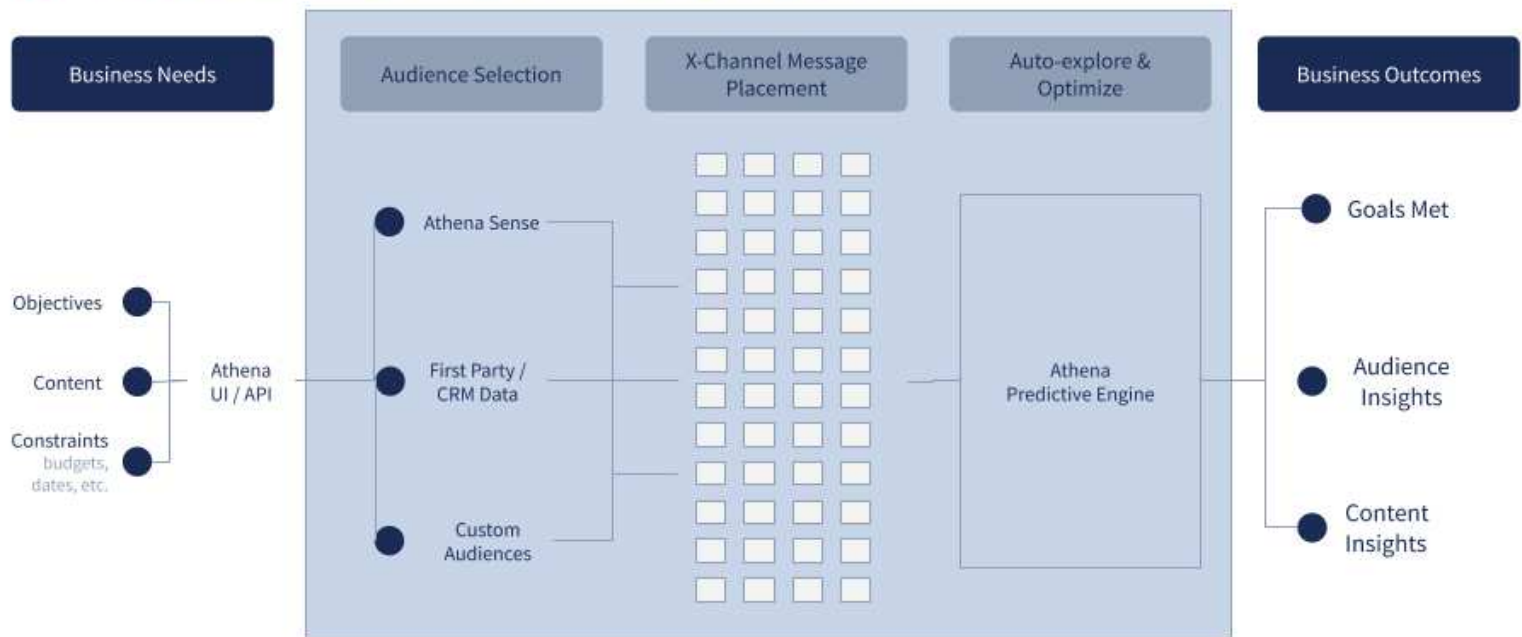
Cross-Channel Autonomous Marketing Framework

Also important to note, there will be different and shifting bid dynamics on different networks even within month-long campaigns (of course, they're all subject to seasonality). Take advantage of these shifts in bid pressures most through systems like Nectar9's Athena Prime that operate and automate budget orchestration a layer above each individual channel for truly dynamic cross channel optimization.

At IMVU, we have strict KPIs around Cost Per Payers (CPP)/Return On Ad Spend (ROAS). By leveraging AI, we were able to take advantage of cross-channel efficiencies, and improve the KPIs dramatically across the board.

Most companies have brand standards and approved messaging in place that marketers may find limiting when considering a new approach.

The future of User Acquisition 3.0 rests on the shoulder of intelligent machines, orchestrating complex campaigns across and among key marketing platforms -- dynamically allocating budgets, pruning creatives, surfacing insights and taking actions autonomously.

These machines hold the potential to drive great performance with a far more efficient, hands-off management approach powered by AI. Control your levers, focus on creative and strategy, and turn the drudgery and math over to the machines to get data-driven results far beyond manual capabilities.

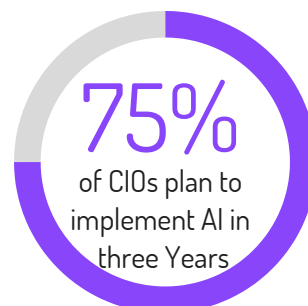# The Rise of **Intelligent Marketing Machines**

Say goodbye to legacy business intelligence systems

Building an "intelligent machine" means looking for solutions that get beyond business intelligence services, which help you track results and spend and create dashboards. Business intelligence is fast becoming legacy software; you or someone on your team needs to make decisions, shift budgets, and so on. Software that follows an "intelligent machine" or autonomous marketing model makes complex calculations 24/7/365 weighing cross-channel probabilities, bid pressure, and thousands of other factors to make decisions and take action for you -- without human intervention.

Companies like Nectar9 offer a new, emerging class of software that will come into its own over the next decade, but savvy marketers can find autonomous marketing solutions that can work with their channels and attribution systems.

The adoption of cognitive systems and AI will drive worldwide revenues to more than $47 billion in 2020 (IDC)

75%
of CIOs plan to implement AI in three Years

What are the pitfalls and risks of intelligent machines?

The biggest risk of intelligent machines in the marketing context is the failure of humans to trust machines to work in their best interest around the clock -- even if short term results don't look as good as what you've maybe achieved manually in some cases.

Going in and thrashing about manually will kill ROI and quickly end your experiment, keeping you from experiencing the potential to scale your UA efforts immensely across platforms in ways that would be too complex to manage manually. You're then stuck in the dark ages of BI.

What are key dependencies to fully automate intelligent machines and would they need human oversight in the future?

Key dependencies include strategy, creative production and iteration, and a reliable cross-channel attribution solution in place. Good, clean data practices that abide by relevant regulations are also a must.

A Closer Look:
Build vs Buy

The Pros & Cons of Build vs. Buy

As with any software, building and maintaining a codebase is an expensive proposition.

It's best to prototype different approaches if you're attracted to that model, but you'll experience far lower cost of ownership to rent sophisticated solutions from leading vendors on a SaaS basis.

The days of playing around with open source or packaged ML solutions from cloud providers is in the rear view mirror for leading marketers.

Today's intelligent machines can use complex, multivariate math to run calculations and probabilities around the clock -- calculations no human team would take the trouble to run because the payoff wouldn't be worth it if you're doing manual allocations and optimizations. Machines can also "learn" and remember situations and improve over time with experience, similar to humans. The advantage of the machine is that it never tires, works around the clock, and has an advanced PhD in theoretical mathematics.

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What key factors to consider for creating an intelligent machine for scaling cross-channel campaigns?

Your organization's level of maturity is a big indicator of future success. Twitchy environments that don't have the patience to test and learn using automation often end up working against themselves in tragic ways by reacting to everything in the short-term even when long term trends show positive results and promise. Organizations focused on the long term and scaling their efforts through automation and AI demonstrate the patience, humility and intellectual honesty necessary for success.

What does the future user acquisition and growth team look like and what skills do they need to leverage the best out of an intelligent machine?

Strategic thinkers, analytical thinkers, and creative problem solvers will make up the crux of tomorrow's user acquisition and growth teams. These teams will constantly review results, observe creative and audience anomalies that can inform future creative approaches, and focus on frameworks for long term success.

Could intelligent machines work effectively for all types of advertisers or just ones with a certain goals or budgets?

All types of digital marketing can benefit from an intelligent machine approach, far beyond UA or growth. But a certain level of sophistication and spend will be required to make the investment make sense, once you get beyond the out-of-the-box tools provided by each platform and embrace a cross channel growth approach.

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About
Nectar9, Inc.

Nectar9 develops, sells and licenses SaaS software that combines advanced machine intelligence, automation and human creativity to drive meaningful marketing outcomes in today's social media environment. As an AI first company, we're building a world in which marketing automation is truly left to the machines. Visit us at **https://www.nectar9.com** for more information or to contact us for consultation.

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