

Adobe Target features powered by Adobe Sensei

Leverage the power of Adobe Sensei to transform your brand with testing, personalization, and automation tools in Adobe Target.

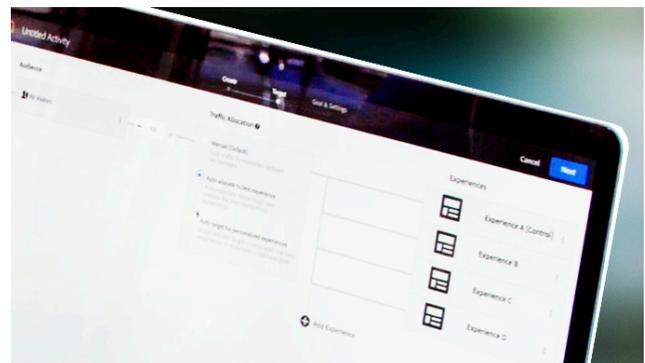
Adobe Target, part of Adobe Marketing Cloud, is Adobe's solution for personalizing and experimenting with content and experiences to maximize conversions, revenue, and engagement across critical digital touchpoints including web sites, mobile apps, email, voice, and the IoT.

With Adobe Target, you can create and manage A/B and multivariate tests to experiment with content, offers, and experiences and understand what changes drive what results for your business. Based on a rich and dynamic profile, you can then deliver personalized experiences to individual users based on their unique characteristics and current context. Several of Adobe Target's most innovative features are powered by Adobe Sensei, Adobe's artificial intelligence and machine learning technology. Features powered by Adobe Sensei include:

- **Auto-Allocate**
- **Auto-Target**
- **Automated Personalization**
- **Personalization Insights Reports**
- **Personalized Recommendations**

Auto-Allocate

A/B/N testing is one of the most common ways of optimizing your user experience. Marketers or site managers define two or more variants for a given experience and the testing tool serves up one of those variants to each user who visits the site, distributing the different experiences to different users and then measuring performance according to the desire goal: click-through rate, conversion, time on site, revenue per visit, etc.



But standard A/B/N testing comes with a cost: you have to spend traffic to measure performance of each variant and then, through analysis, determine the winning experience. While you're determining a winner, traffic distribution remains fixed, so less effective variants are still being served to just as many users. And you've got to wait until the testing cycle is complete before you do anything with the results. Finally, your "winning" variant may not, in fact, be the best, because in standard testing, each variant is compared only to the control, not to each other.

Auto-Allocate, powered by Adobe Sensei, offers you a leg up on making good use of your testing. When you set up a testing activity, activating Auto-Allocate enables Adobe Target to begin preferentially showing the high-performing experience variants to users over the low-performing variants while the test is still running. This begins improving your lift long before the activity is complete. Auto-Allocate continually compares the performance of

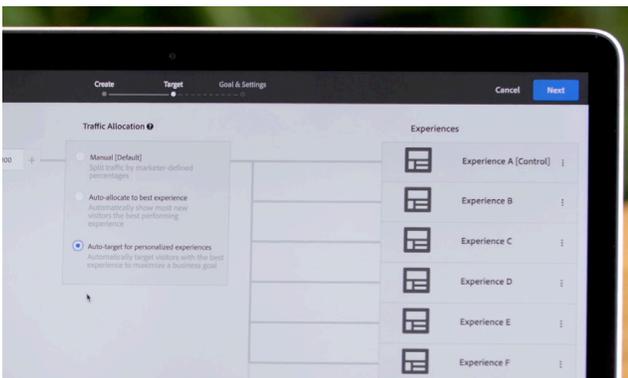
each variant in the test against all others, so there's no single control, and it finds the truly best-performing variant among them all.

With Auto-Allocate, you get to the best experience more quickly than you would with a standard A/B/N test, and you can check the results at any time during the course of the testing activity. Auto-Allocate continues to show all variants to your users often enough to ensure the test is valid, but allocates more and more users to the best-performing variant over time, making your testing activity more productive.

Find out more about [Auto-Allocate in the Adobe Target documentation](#).

Auto-Target

With most A/B/N testing tools, your options are limited when it comes to determining which variant experience to deliver to which user. Some tools simply allocate the experiences randomly. More sophisticated tools allow you to select target audiences to serve each variant. How much more effective would this be, however, if you could make an optimal choice of which variant to deliver for every single user who visits your site?



That's exactly what Auto-Target does. Powered by Adobe Sensei, Auto-Target appears as an option in the Adobe Target UI when preparing an A/B/N test. When activated, Auto-Target's machine learning algorithms get to work: By digging through past performance data, first for the user in question and then for other users having the same profile characteristics, Auto-Target builds a [random forest](#) of algorithmic decision trees to determine the best experience to serve to that user. Auto-Target then measures the outcome of that experience for that user and feeds it back into the algorithm to refine its own model.

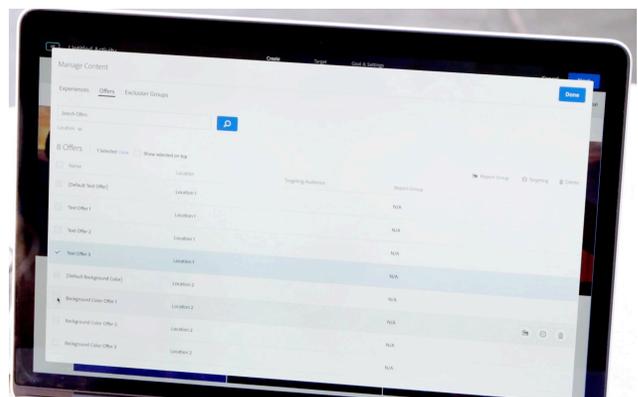
The model is refreshed every day, so Auto-Target can adjust to changing user behavior. Auto-Target can be used in two ways: to make an initial evaluation of the effectiveness of a given

personalization algorithm, or to provide continuous optimization of the user experience. In continuous mode, Auto-Target provides "always-on" optimization that generates ongoing lift for your campaign.

Find out more about [Auto-Target in the Adobe Target documentation](#).

Automated Personalization

Automated Personalization, powered by Adobe Sensei, takes the kind of deep-dive analysis and random forest evaluation of Auto-Target and applies it at the individual offer and message level. With Automated Personalization, marketers can point and click on any content on their site and then create and select different variations on the content using the integrated Visual Experience Composer (VEC). The machine learning algorithms of Automated Personalization then automatically determine which variant to show which user, based on all the behavioral data the system has about that user and about users who most closely match the characteristics of their profile. Like Auto-Target, Automated Personalization also refreshes its analysis to adapt to changing user behavior, so it can be set to run perpetually, providing ongoing lift. Over time, the algorithm learns to predict the most effective content and displays the content most likely to achieve your goals.



Automated Personalization also takes advantage of the Personalization Insights Reports. These reports detailed above provide you with automated segments and important attributes that contribute to the performance of your content, enabling you to refine your offers and introduce new ones that better suit your audience.

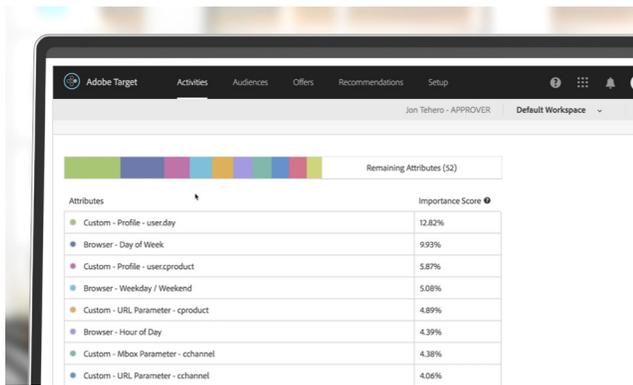
Automated Personalization helps a marketer determine which element among several on a page works best to serve a particular offer; it also helps determine which of several offers works best in a particular location, or across multiple pages on the site. This

makes Automated Personalization very valuable in the discovery phase of testing, since you can use it to fine-tune your offers before going with the most effective ones.

Find out more about [Automated Personalization in the Adobe Target documentation](#).

Personalization Insights Reports

Adobe Sensei answers the question; how does the machine learning model know which options to serve to which users? And what are the important attributes of those users that determine what they'll respond to? This next step in Adobe Sensei's analysis results is the Personalization Insights reports. These reports, called Important Attributes and Automated Segments, show you the factors that most influenced the optimization model's decisions of what content to show to what user, and give you automated segments you can immediately use to target valuable users. They are powered by an Adobe proprietary genetic algorithm that reads all the attributes of your users' profiles and tests them against the optimization model to determine which ones affected the model's decision-making. Moreover, they compare the results of these tests against every user to build automated segments of users that respond in similar ways, as well as segments of important attributes that didn't actually generate a solid response, so you can discover unaddressed potential audiences.



Attributes	Importance Score
Custom - Profile - user:day	12.82%
Browser - Day of Week	9.93%
Custom - Profile - user:product	5.87%
Browser - Weekday / Weekend	5.08%
Custom - URL Parameter - c:product	4.89%
Browser - Hour of Day	4.39%
Custom - Mbox Parameter - c:channel	4.38%
Custom - URL Parameter - c:channel	4.06%

Find out more about [Personalization Insights Reports in the Adobe Target documentation](#).

Personalized Recommendations

Recommendations are a long-standing, common feature on the web. Techniques such as preconfigured related products or content have long been used to suggest to users similar things they might be interested in, given that they're looking at a particular item. Personalized Recommendations, powered by Adobe Sensei, brings machine-learning firepower to this process to provide not generic recommendations based merely on the content or product being viewed, but context-specific recommendations based on the user's past behavior and the behavior of other users with similar characteristics.



Personalized Recommendations uses a combination of sophisticated algorithms to develop recommendations for individual users. Among these are Item-Item Collaborative Filtering, which uses a novel similarity metric that corrects for popularity bias and allows for the exploration of long-tail items in recommendations. We also use content-based similarity algorithms that produce recommendations purely based on the descriptions of items in your product catalogs, with precise controls allowing you to tune the relative importance of different words to produce exactly the recommendations you want. Finally, we use popularity-based algorithms that recommend items based on top viewed, top purchased, and top viewed items among users who share a profile attribute, and others.

The result is truly effective recommendations: Not only are you serving your users content and/or products they're really interested in, which improves their experience, your recommendations will perform better, leading to higher conversions and more revenue.

Find out more about [Personalized Recommendations in the Adobe Target documentation](#).

Conclusion

The features of Adobe Target powered by Adobe Sensei give you unparalleled power to deliver optimum user experiences to targeted individuals. Whether you're simply conducting an A/B/N test and want to drive results while you're testing, or want to deliver an optimal user experience to each individual, Auto-Allocate and Auto-Target provide the capability to deliver what you want. With Automated Personalization, you can go down to the level of individual offers to optimize the experience for each user. Then Personalization Insights reports enable you to understand which attributes are driving optimization for your users. With Personalized Recommendations, you can provide recommended content and/or products to each user with the same precision. These Adobe Sensei-driven features give you the power to tailor the user experience to each person, delivering for each just what they want—and giving you the best possible performance from your digital marketing campaigns.

