

The IT Expert's Guide to AI and Content Management



by [Adobe Enterprise Content Team](#)

POSTED ON 01-13-2020

Adobe Products Featured



More than 60 percent of CIOs say artificial intelligence (AI) and machine learning will be critical to their business in five years, notes a [Forbes report](#). And organizations are getting ready. According to [Gartner](#), “the number of enterprises implementing [artificial intelligence](#) grew 270 percent in the past four years and tripled in the past year.”

“If you are a CIO and your organization doesn’t use AI, chances are high that your competitors do and this should be a concern.”

Chris Howard

Distinguished Research Vice President, [Gartner](#)

As brands continue to look for ways to stand out among competitors, more and more are turning to AI. But they need some guidance around where to start and how to be successful.

One of the most exciting areas in which AI has already made a strong impact is content management. From [personalized content](#) and asset tagging to content production and [A/B testing](#), here are some of the biggest opportunities for IT teams when it comes to AI and content management.

Three critical ways AI can transform your content

1. Create content faster with automation

Consumers are spending more time on more devices than ever before. Which means their demand for fresh, relevant content is only going up. The problem is, organizations don’t have the resources to match that demand.

“Every organization we speak with tells us they need more content today to market effectively. None say their content creation budgets are keeping pace.”

Melissa Webster

[IDC](#)

AI and machine learning can help you get content out the door faster, starting with the assets that make up those digital experiences. Rather than spending hours tagging, cropping, and searching for photos and videos, those tasks can be automated, giving people more time to do what they do best.

“Automatic tagging through Adobe Experience Manager saves a lot of time for creative teams as they upload files,” [says Ben Snyder](#), IT product owner for Under Armour. “And it surfaces many assets that might have gotten lost previously.”

Because AI makes it easy to reuse content, such as automatically adapting text length to fit various screens, authors can develop content once to be used in various channels and screens and then move on to creating new experiences. For developers, AI could help bridge the gap between design and implementation by reducing the time needed to code templates — a task that's particularly challenging if your templates include interactive elements that have logic tied to them.



Here's how this might work:

- Train neural networks to recognize template components (images, text, etc.).
- Take a screenshot of an existing template.
- Let AI recognize components and create a new template based on the original.

This process would be especially useful if you're migrating content to a new system and don't want to waste time recoding all your existing templates.

2. Build personalized experiences with data

Serving up the most relevant experiences to your customers is hit or miss if you don't know how your content is performing. Today, organizations are using personalization platforms powered by AI to automatically test and deliver the most relevant experiences to even their largest audiences.

"It makes a lot of sense to connect data about how visitors interact with experiences on your site, and then try to evolve those experiences," says Jonas Dahl, product manager for machine learning in Adobe Experience Manager. "But in reality, this doesn't happen often."

The biggest reason teams don't tie data to experiences, says Dahl, is the lack of structured feedback available. "Everyone does analytics," he explains. "Usually it's a program you have and there's no system behind it to identify what content works well, and what doesn't work well for different audiences. It's a huge opportunity."

And it's one you can jump on with the help of AI and machine learning. Using the data it captures over time, machine learning can understand how audiences interact with content on your site. It can then use that information to automatically serve up [personalized experiences](#) at scale to future visitors based on what it believes that person wants to see.



① Select the blocks of content you'd like to test.



② Identify the KPIs and audiences you'd like to reach.



③ Capture and analyze data with an analytics platform.



④ Let algorithms automatically create experiences for different audiences.



⑤ Deliver and measure experiences through your personalization platform.

3. Optimize content with less effort

If you want to deliver the most relevant experiences every time, you'll need to find out what works and what doesn't. That means making changes to your content, navigation, design, and colors, and then conducting A/B testing to understand how those changes perform.

But creating multiple variations of the same content and conducting those tests requires resources and time that most organizations can't spare. As a result, content isn't tested as it should be, performance suffers, and customers go elsewhere.

"My experience is that everyone talks about testing. But you really have to enforce it for it to happen. It's difficult to do on a large scale."

Jonas Dahl

Product Manager, Machine Learning, Adobe Experience Manager

Dahl uses the example of a content writer to explain the challenge. "If I asked a writer after she completed an article, 'Why don't you write four more so we can A/B test those?' she wouldn't be totally happy about that. She'd think it's a lot of extra work and just too hard."

In much the same way, there's an opportunity for AI to help developers create different testing variations of navigations, interactions, design elements, or layouts. Imagine if a developer could create a master experience and AI steps in to suggest a few other ways to present it.

"Developers can learn where they should fine-tune those layouts, modes of interaction, and templates," says Dahl. "For example, based on feedback, you might determine that you need to add drag-and-drop functionality to a page instead of a dialog box, or change the navigation from the left to the top of your site."

With the ability to automatically A/B test those variations, developers could save loads of time, work more efficiently, and take on more innovative, interesting projects.

Six tools of the AI trade

[A recent IDC study](#) found that 25 percent of companies using AI report that half of their AI projects are failures. Lack of skills, technology costs, and data bias were the top three reasons why. To prevent yours from suffering the same fate, here are some major things to consider before you launch.

1. Know where to start

With so many possibilities, one of the biggest challenges in successfully implementing an AI project is choosing the right use case.

“Look at how you are using technology today during critical interactions with customers — business moments — and consider how the value of those moments could be increased,” recommends [Whit Andrews](#), distinguished vice president analyst at Gartner. “Then apply AI to those points for additional business value.”

2. Temper your expectations

[According to Gartner](#), “Most organizations start an AI project with a plan to launch the project within two years. However, organizations past the initial planning process estimate it will take four years.” An implementation plan with clearly defined stages, change management parameters, and executive support will increase your chances for success.

“Most IT projects take longer and cost more than they should,” says Dahl. “That risk is much higher with AI projects because you have the data on top, and you don’t really know what’s going to happen until you start looking into it.”

3. Keep it agile

Because AI and data hold so many unknowns, starting out with a big project is a recipe for disaster. Instead, Dahl recommends that teams start small, celebrate success, get to know their data better, and then decide how to move forward.

“For normal software projects, you should have an agile approach,” says Dahl. “For AI, it’s totally necessary to be successful.”

4. Organize your data

AI is only as good as the data that feeds it. If you have bad data, you’ll get bad recommendations from your AI software. For the best results, unify your data sources, and be sure you have the right data for the job at hand.

“Make sure your data is clean and accurate,” advises Shelby Britton, group product marketing manager of strategy and product marketing for Adobe Experience Manager. “Have confidence in your data first, then you can have more confidence in your AI solution.”

5. Unify your systems

If you adopt multiple technologies for multiple business problems, your customer experiences will be anything but smooth. From content management and audience profiles to analytics and personalization, a unified platform can keep everything in sync.

“IDC believes that a modern digital experience platform helps the organization become more agile,” says Melissa Webster in [an IDC report](#). “IDC also believes that modern digital experience management platforms are distinguished by their incorporation of AI and machine learning to streamline user tasks and achieve a great result with less effort.”

6. Stay ready for the future

In order to keep up with changing customer expectations, you'll need a secure digital foundation that grows with you. Cloud-native solutions that protect company and customer data, help you maintain regulatory compliance, and push out updates easily can ensure you'll be ready for any changes that come your way.

“You could be waiting forever because there's always a next best thing,” says Britton. “The competition is using whatever is available. Dive in before your competitors leave you behind.”

Great experiences can't wait

Trying to meet customer expectations for more relevant content using slow, manual processes is the quickest way to lose business. Instead, you need a more agile approach. One that helps you deliver memorable experiences based on customer preferences and behaviors. And do it at scale.

Look no further than AI. With the power to transform content management by delivering the right experiences to the right audience every time, it's one approach you should get started on right away. Because exceptional experiences — and more importantly, exceptional customers — can't wait.

Adobe can help

Adobe Experience Manager Sites is a hybrid, cloud-based [CMS](#) that gives IT teams the power to create and reuse content to quickly adapt to market demands and emerging channels. We've been named a Leader in Gartner's *Magic Quadrant for Web Content Management* for several years running. We've also been recognized as a Leader in *The Forrester Wave™: Web Content Management Systems, Q4 2018*, as well as several prior editions of the Forrester report. With the ability to integrate behavioral and [customer profile](#) data from Adobe Analytics and Adobe Target, you can create personalized experiences at scale with less effort.

Adobe Sensei is the technology that powers intelligent features across all Adobe products to dramatically improve the design and delivery of digital experiences. It uses artificial intelligence, machine learning, and deep learning to harness Adobe's massive volume of content and data assets along with Adobe's deep domain expertise in creativity, marketing, and digital documents.

[Learn more](#)

[Discover](#) why Adobe has been named a Leader in Gartner's *Magic Quadrant for Web Content Management* for nine years straight.

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

• • •

Copyright © 2018 Adobe. All rights reserved.