

As consumers demand more personalized digital experiences, content is becoming more targeted and granular.

Building Digital Experiences with Atomic Content

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Questions posed by: Adobe

Answers by: Marci Maddox, Research Vice President, Digital Experience Strategies

Q. What is atomic content, and how does it address the biggest challenges marketers and developers face when building digital experiences for their customers?

A. Atomic content — which by definition is a standalone block of text or media object devoid of context or presentation — can be dynamically assembled with other atomic content elements to produce unique experiences for many different endpoints such as browsers, mobile apps, and wearable devices. Sometimes referred to as composable content or content blocks, these granular, reusable elements (e.g., news teaser, legal disclaimer, product image) are fluidly combined at the time of delivery based on a specific purpose, as opposed to static content pages that are generated en masse at inception. The reusable atomic approach allows teams to deliver more enriched experiences faster, such as rendering hundreds of permutations of a personalized web banner using only a few atomic elements.

As the design of digital experiences has become more textured (e.g., custom font types or colors) and multimodal (e.g., visual, audio, or gestural), granular design controls are finding favor with stakeholders along the content supply chain, including web designers, digital marketers, content authors, and developers. IDC survey research found that nearly 1 in 3 marketers struggles to keep up with rising content creation demands and 25% need to publish content faster. Atomic content is a powerful ally for creative teams in addressing these challenges. With atomic content, authors can focus on creating the narrative elements and leave the assembly of the personalized experience to the content management system (CMS) or digital asset management (DAM) tools.

As consumer expectations for personalized experiences grow across numerous channels and content types, there are efficiencies of scale when a web page, an app, and the like can be dynamically assembled with personalized content — purchase history, promotions, and so forth — that a static page cannot accommodate. When personalized content is extended to dynamic media delivery, any asset can be automatically changed to fit any piece of the template for complete customization and unlimited combinations.

Q. What are the biggest misconceptions and common pitfalls of atomic content?

A. Adopting an atomic content model successfully requires both a technique and a skill set not historically associated with creating documents or web pages. A few of the biggest misconceptions and common pitfalls associated with atomic content are as follows:

- » **Metadata and taxonomies** are the hub of intelligence from which applications pull to deliver enriched experiences. Without metadata to describe assets and a taxonomy to structure it, the atomic content model will fail to live up to its potential. Content management platforms that are built with a rigorous taxonomy structure are the cohesive environment for common terminology and metadata tags that make it easier to centralize the content for reuse and assembly. One misconception is that once a content management platform is in place, the system can be left to run on its own. The model works best if it is continuously tuned as digital initiatives evolve and new use cases are added. To assist, tools and integrations — for example, a native integration between a DAM tool and a CMS — can simplify the collection and automation of tagging, categorization, and ingestion of objects across the entire content supply chain from ideation to delivery.
- » **Skills and resources** for content optimization, such as content librarians who keep the metadata/taxonomy clean and updated, are necessary to maintain the system and propagate usage. IDC found that 88% of marketing leaders are expanding their investment in digital experience skills. Leaders should seek the right talent who can train others on proper content hygiene in support of agile personalization at scale. For example, automatically assembling marketing campaigns, projects, pages, emails, and so forth based on a person's interest is derived from current metadata tied to each individual atomic piece. Organizations should avoid the pitfall of underinvestment and expand the marketing technology stack to address the skills shortage/inexperience of the marketing team.
- » **Marketing and IT/development** are at odds because neither team takes the time to understand the tools and processes the other team needs to create digital experiences with atomic content. For example, marketing and creatives may not understand the technical setup of a descriptive metadata model that enables the asset to drive higher utilization. IT may not understand why certain aesthetics and design are important to impactful engagement. To promote a better working relationship and higher-value actions in their respective areas, developers should implement the technical aspects up front that make content authoring and publishing simple or eliminate repetitive tasks such as recropping an image.
- » **Content and template efficiency** is tied to misconceptions about content at the atomic level — that working with it is difficult to manage and measuring its success is harder. With atomic content elements, the asset/page template is created once and then reused across different industries, products, or geographies with continuous assembly of final assets happening in real time. This approach could come across as significantly more complex — hence the need for content management tools that are integrated across the marketing technology stack. This level of data-driven creation not only provides rapid deployment of persona- and campaign-adapted content that can conform to brand or legal guidelines but also promotes an iterative and collaborative authoring process that eliminates many manual and tedious tasks. Without integrations across the content supply chain, there is a risk of fragmented insight/silos and manual processes at each phase.

Q. How does atomic content fit into the larger story of personalization at scale?

A. According to IDC research, 79% of buyers find it useful when vendors recommend content or identify the next step that is useful to them. Additionally, 66% of the time, the level of personalization applied to the experience determines whether or not content is read or acted on. Personalization has many characteristics in its ability to deliver unique offers, specialized content, tailored pricing, and the like throughout the customer journey based on a multivariate understanding of the individual. The most positive outcome is based on how well a digital experience is built with the narrative, offer, and other elements that are most relatable to what the customer is looking for. Therefore, the easier it is to find content that aligns with customer preferences and assemble content according to those preferences, the better the outcome.

Applying personalization at scale requires the process to be agile and the atomic content elements to be accessible to everyone involved at each stage of the content supply chain. High-quality content fragments should be repurposed to assist in faster creation of related assets and leverage artificial intelligence/machine learning (AI/ML) to automatically create an experience for the stage the customer is in at that moment. The following types of personalization may be in play at any point in time:

- » **Persona driven:** Delivered at the right time, in the right place, and to the right person
- » **Channel specific:** Formatted for a preferred channel
- » **Context aware:** Data-driven journey stage or activity
- » **Recommendations:** Data insight for individual offers
- » **Episodic:** Continuous build of relationships and loyalty

The content supply chain at many organizations is broken or, at a minimum, does not account for how the content will be used to accelerate the customer's journey to achieve their goals. Choosing the right elements to connect depends on customer data — the preferences in how customers want to be communicated with and the level of engagement they want to have with a brand. With atomic content, the digital experience is crafted according to customer preferences. Personalization extends beyond what content is delivered; it emphasizes which parts of the content are delivered as a tailored and individualized experience.

Q. What steps can organizations take to tackle personalization from the bottom up?

A. Handling atomic content is an important task for an agile data-driven organization. Strategic elements of planning, process design, and education are needed to be successful. Today's personalization has moved beyond integrating basic customer data, such as someone's name, into a title or a subject line. Sophisticated digital conversations now require a more advanced analysis of the customer's behavior, engagement, product affinity, attitude, or loyalty to craft the message or experience that makes the customer feel like the brand understands them and their needs at that particular moment. To facilitate a radical digital transformation where it becomes natural to create unique personalized experiences that

can dynamically and automatically scale fast with each visit or interaction, organizations should consider the following key tactics:

- » Create an atomic content strategy to capture, tag, and expose the content fragments to a wide variety of authors and subject matter experts across the organization
- » Invest in integrated or unified content management tools that are architected to handle atomic content at scale for content creation and delivery
- » Define a unified taxonomy that is contributed to by and accessible to everyone
- » Establish templates and workflows that utilize atomic content in both design and context
- » Develop and promote an organizational culture that encourages continual updating and sharing of atomic content
- » Use AI/ML to assist in the auto-categorization and auto-tagging of elements into the shared repository; auto-identify nonatomic content that needs to be deconstructed; and automate repetitive tasks for various channel renditions or privacy preferences
- » Use analytics to instrument best-performing combinations of atomic content, personalization, and actions across the content supply chain

Q. What is the right amount of atomization and personalization to not be invasive for customers and overwhelming for practitioners?

A. It is possible to overwhelm practitioners if too many elements are created at a depth that is not valuable to the customer or content supply chain process. While organizations are becoming comfortable with creating/setting metadata, an atomic content strategy demands more rigor around the process to ensure efficiency in the creation, management, and publication of many types of content. Overuse of technology-generated communications, even if those communications contain the right content and story, will come across as robotic and drive people away.

Companies need to balance technology with the human element to make the engagement feel authentic. For example, organizations can adjust the journey in real time to bring the conversation from a digital channel to a voice or in-person discussion — the secret is to maintain continuity by bringing along a history of the digital engagement to the new channel/person. Add zero-party or first-party data to the equation, and the value of the engagement goes up. IDC research found that 41% of organizations will prioritize greater use of data to personalize and improve the customer experience. This is important when 72% of IT buyers are more likely to consider a vendor that educates them through each stage of the process and 90% find it challenging to obtain high-quality content.

Organizations should begin with atomic content that facilitates business automation, such as breaking down rigid web pages or assets into more nimble and reusable fragments. For example, a retail site can curate past purchases and then analyze them to tag and store product preferences separate from the promotions and product recommendations. As a promotion discount rate changes based on a new product release, only the promotion element needs to be updated. Commerce marketing teams benefit from not having to lock the entire advertisement just to update the discount code.

This allows other authors to independently edit other sections of the advertisement, such as the product descriptions, in parallel. Practitioners can then assemble high-quality experiences from a set of independent elements tailored to the customer's exact needs.

About the Analyst



Marci Maddox, Research Vice President, Digital Experience Strategies

Leveraging 20 years of working with content and experience applications, Marci is responsible for research related to content and media assets that drive relevant, personalized, and engaging digital experiences research. Marci's core research coverage includes creative tools, web content management systems, customer communications, digital asset management, and video platform solutions.

MESSAGE FROM THE SPONSOR

We live in a digital economy that's filled with new channels and driven by more audiences who demand next-level experiences. That means brands need to feel empowered to act and connect with people faster than ever. As a marketing and technology leader, if you want to fuel personalized experiences easily across every touchpoint, you'll need scalable, integrated solutions that give you the power to speed up content creation. Because speed matters — and when you can build and deliver personalized experiences to customers when and where they want, engagement soars.

When the only constant in content is knowing that customers expect more everywhere, speed and agility are essential for success. Having the right tools in place is critical to get ahead of today's content challenges and create epic experiences your customers will never forget.

Learn more about building custom experiences faster in [4 Ways to Step Up Your Content Creation Game](#).



IDC Research, Inc.
140 Kendrick Street
Building B
Needham, MA 02494
T 508.872.8200
F 508.935.4015
Twitter @IDC
idc-insights-community.com
www.idc.com

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