Amplience

MIND THE ECOMMERCE EXPERIENCE GAP

Why eCommerce Experience Needs to Evolve and How Headless Can Make It Happen

Contents

How is Commerce Changing?

The Impact of Mobile

Mobile shopping has revolutionized the world of commerce as we know it. Today's shoppers are using their smartphones for a broad range of tasks – everything from digital 'window shopping' to making purchases.

What's more, the future of mCommerce (mobile commerce) is very bright indeed.

$359.32 billion worth of sales were made through mobile in 2021 in the US alone, according to Business Insider.

Many retailers are struggling to adapt to this new reality.

Despite the development of mobile-optimized digital platforms, mobile sales are expected to make up roughly 43% of all eCommerce sales in 2024.

> "$359.2bn worth of sales were made through mobile in 2021 in the us alone."

At the same time, consumers have added social media platforms such as Pinterest, Instagram and TikTok into their shopping routines. 54% of people browsing social media are doing so to find inspiration and information on products they want to buy, according to GWI.

These customers break the traditional eCommerce conversion process by entering the storefront from social channels at the product-detail-page (PDP), which is traditionally the end of the shopping journey, not the beginning.

As a result, social-first shoppers who do not engage with the majority of the storefront's content, offers and promotions typically spend less and return more products, further impacting retail economics.

> "Retailers must deliver the high quality, mobile-optimized, covid-secure shopping experiences that consumers demand."

A Global Pandemic

As if the situation wasn't complex enough already, enter Covid-19.

Retailers have been confronted with a combination of shuttered stores and reluctant in-person shoppers. This has driven a huge rise in online traffic to Black Friday levels almost every day, but without the corresponding Black Friday levels of conversion.

With consumers less likely to enter stores, brands can no longer rely on store associates to help shoppers navigate high-involvement, complex categories. The eCommerce experience must now compensate for this by deploying enough content to support every stage of the customer's buying process. This increases costs even further.

To compete in this new economy, retailers must deliver the high quality, mobile-optimized, Covid-secure shopping experiences that consumers demand.

Why Does Your Commerce Experience Need to Evolve?

It's said that 'you can't improve what you can't measure'. So digital teams have turned to customer feedback to supplement their traditional web analytics. This allows them to start systematically managing their digital customer experiences.

What they find when analyzing this feedback is that storefront visitors consistently raise the same five key issues with the shopping experience:

1. Poor page load performance
2. Difficult navigation
3. Confusing categorization
4. Missing product information
5. Generic content that lacks personalization and/or relevance

When the results are filtered for mobile-first interactions, these challenges are magnified, with page load performance being the standout issue. We've long known that mobile visitors are highly sensitive to page load performance.

But how quick is quick enough?

0-2 seconds is the optimal loading time for a webpage. According to Portent, the highest ecommerce conversion rates occur on pages with load times in this range.

All of which has a dramatic impact on mobile conversion rates.

Achieving these lightning-fast page load speeds requires a completely different frontend setup, however. One that is based on a new set of web technologies optimized for mobile.

And it's not just the frontend that needs work. Addressing challenges in the shopper experience caused by the structure of the platform requires changes to the backend systems. This is where data is configured and stored, so it quickly becomes complex and costly to deliver the fixes that a truly optimized experience needs.

This is because the backend is typically a traditional all-in-one monolithic eCommerce platform. Most of these are based on technologies that were developed years ago – and it shows!

At the core, these rigid eCommerce platforms use decades-old web content management technologies to define the experience. Everything is tightly coupled, so even simple changes can require long development cycles.

And while retail technology teams have worked miracles in extending these systems to accommodate mobile and other channels, they are ultimately fighting a losing battle with complexity and cost, while shopper frustration is on the rise.

No wonder disappointed shoppers are abandoning eCommerce sites before the first screen even loads.

> "No wonder disappointed shoppers are abandoning ecommerce sites before the first screen even loads."

Headless Commerce to the Rescue?

Retailers desperately need to gain control of the way they build and manage digital experiences across every customer-facing touchpoint. This is where headless commerce comes in.

By decoupling the frontend presentation layer (the head) from the back-end eCommerce capabilities (which coordinate tasks the system performs), these headless platforms expose functionality via an API (application programming interface) in JSON (JavaScript Object Notation) format, delivered from the cloud.

This not only makes them ideal for driving progressive web apps (PWAs) that support rapid mobile-optimized storefronts, but also solves the problems of monolithic back-end complexity. It's a smart move to a more agile approach that delivers greater:

- Flexibility – you can deliver consistent, seamless and optimized experiences across all delivery channels (mobile apps, web sites, voice, in-store, and other systems)
- Speed – you can deliver content as data via APIs, which can be displayed quickly and efficiently by a PWA that improves the customer experience
- Agility – you can make modifications quickly using open frontend technologies
- Scalability and Performance – you can optimize and scale the frontend independently of the backend

The headless and microservices approach breaks down the traditional eCommerce monolith into its component pieces, which can then be replaced wholesale or incrementally in a low-risk migration pattern known as 'strangulation.'

It's no wonder headless commerce is creating such a stir among retailers. For them, going headless represents an opportunity to achieve enhanced agility and significant improvements to front-end performance, all for a much lower cost.

But while technical teams are keen to push forward with headless commerce to realize these promised gains, marketers, merchandizers and operations teams seem reluctant to make the transition.

And they're right to be cautious.

It's because these headless commerce platforms do not yet offer tools for managing the storefront experience that are comparable to those contained in the legacy eCommerce monoliths they currently work with.

And that has significant implications for the productivity of business users. One that ultimately impacts the ability of the eCommerce teams to successfully make the transition to headless.

Let's take a closer look at why some headless commerce platforms are still missing vital functionality.

> "These headless commerce platforms do not yet offer tools for managing the storefront experience..."

The Consequences of Going Headless

A key feature of the traditional CMS model is that it enabled user-friendly upkeep of the storefront experience. Legacy eCommerce platforms came equipped with consoles, which included tools for page composition with drag and drop UI (user interface) features.

More advanced consoles included functionality for site/storefront management, navigation, layout management and component registries. This ensured that experience management was firmly in the hands of business users, including:

- Merchandizers - who could create custom product assortments on category pages
- Marketers - who could create sophisticated landing pages featuring promotions, editorial content, live product data, and search results

Introducing a natively headless commerce platform means losing the in-built web CMS and associated tools, however. This forces developers to manually code the experience elements into the front-end app.

It's a change that has major consequences for the eCommerce team. They lose control of the core experience management functionality that's needed daily to market and merchandize the storefront. Headless has become the problem, rather than the solution.

Between a Rock and a Hard Place: Mobile Experience Vs. Experience Management

As we've seen, the move from a legacy eCommerce platform to a headless commerce one isn't as straightforward as it first seems. That's especially true for today's sophisticated eCommerce teams, where roles and responsibilities are more blurred between different teams.

This is a big problem for retail technology teams, who find they're trying to sell the transition to a headless architecture to sceptical eCommerce business and creative users, with an incomplete set of experience management tools.

Let's explore what that means in the context of experience management.

To create diverse commerce experiences, merchandizers and marketers need to be able to combine product and non-product content with functional components into pages or views. But that becomes impossible if the front-end rendering of the view moves to the PWA itself.

This is because the PWA exists as code - written using a JavaScript framework like React, Vue or Angular – so is inaccessible to business users.

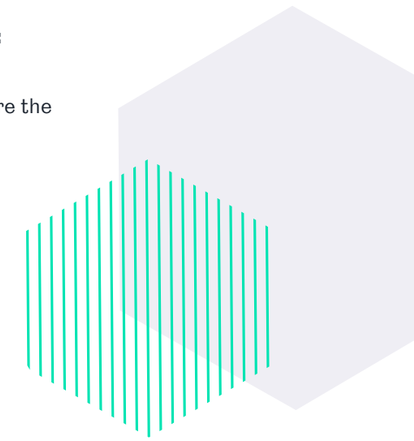
That leaves retailers between a rock and a hard place when it comes to resolving this issue. They must choose between:

- Building and managing a PWA-based front-end delivers improvements to mobile (and desktop) performance – such as less bounce and more conversions - but business users must rely on developers to make changes.
- Using a legacy web-CMS to drive the PWA results in substandard performance that negates the benefits of the PWA model.

Put simply, retail headless commerce projects are unlikely to succeed if:

- Merchandizers and marketers lose the visual tools they need to configure the experience – without the need for code change.
- Business users are stuck with an old-school web-CMS to drive the front-end experience.

And given that one seems to demand the other, it's clear that the benefits of the headless approach come with significant costs that may outweigh the advantages.



Can a Headless Platform Also Be Flawless?

The short answer is yes, it certainly can.

Here at Amplience, we've created an API-first, headless CMS, DAM (digital asset management) and Digital Experience Management platform that makes it easy to schedule, produce and deliver customer experiences on any device.

By using a headless and microservices approach, we enable better execution of headless experience management. One that puts power back into the hands of content creators, without resorting to clunky technologies that hold back performance.

It's a revolutionary approach that:

- Separates experience configuration from presentation rendering
- Removes the structure of the experience from the frontend
- Stores that configuration data as content in the headless CMS content graph.

This approach retains all the benefits of the PWA and headless architecture by moving the key experience configuration data into content, not code. This makes it manageable for merchandizers, marketers and content managers.

> "We need somewhere to store the relevant data and a way to retrieve just the content and data needed at the time."

Introducing Headless Experience Management

Before we take a deep dive into how we do it, let's first define what's required for true headless experience management from a PWA perspective.

To build an experience, the PWA needs to ask the content delivery APIs for:

- The structure of the experience – in other words, navigation-as-a-service
- The type of page/view layout it will display – i.e. layouts-as a-service
- The configuration, content, data and components of a specific screen – a definition of all the content types used in the experience, including content that's not native to the CMS (like product and customer data)

All this must be achieved in a way that does not create too many fixed dependencies between the PWA and the underlying systems, enables maximum content reuse, and allows for development of the PWA without constant reference to the system delivering the experience.

To ensure the PWA can respond to user interaction, we need somewhere to store the relevant data and a way to retrieve just the content and data needed at the time.

Enter the content graph, a key innovation that underpins most, but not all, natively headless commerce platforms.

How to Structure the Experience

The content graph, as implemented in Amplience, is extremely flexible. It can contain structures like navigation, content slots, pages and views, as well as the content of the experience.

With smart graph version control, we can create a snapshot of the graph, enabling versions of the experience to be created and visualized using intuitive tools.

To deliver a full PWA experience that performs tasks like legacy web storefronts, the graph needs to hold many types of related objects:

- Hierarchical (navigation and taxonomy)
- Sets of related entities (layouts and views)
- Those that point to external data sources (ratings and reviews, customer segmentation or product data).

The good news is that because the graph stores content as data, it's able to deal with the problems of experience in ways that transcend the old web CMS model.

For example, a set of linked graphs are used to define the totality of the storefront experience – one defines navigation, while others contain details about products, customer segments and campaign content.

All this complex graph data is unwieldy to use in the PWA, however. Ideally we need to find a way to query various linked graphs and retrieve only the data we need. And for that we need taxonomies.

Categorize to Optimize

One of the key benefits of a headless CMS is that content can be reused in many different places. This requires a classification structure – known as taxonomies – so that content can be categorized for later retrieval. For example, a product might live in:

- /mens/jeans/slimfit
- /sales/January/jeans
- /styleedits/menscollection/jeans

By applying several different taxonomies to the same piece of content, the experience can be moulded by a variety of useful criteria: looking for end of sale bargains or finding the right pair of jeans in the right fit, for example.

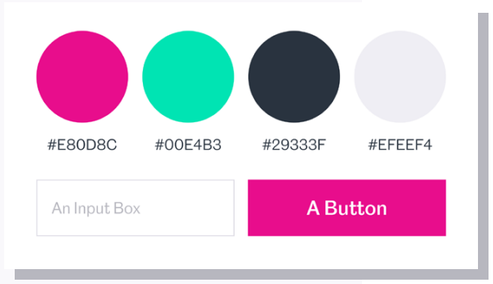
In this way, taxonomies allow for a range of uses. They can also help content managers to avoid duplication and enable automation of the experience.

A structured content graph together with taxonomies enables the back-end to control the front-end experience. This graph can be mapped directly to frontend JavaScript-powered components by using a design system. One such system is 'atomic design'.

There are five distinct levels in atomic design:

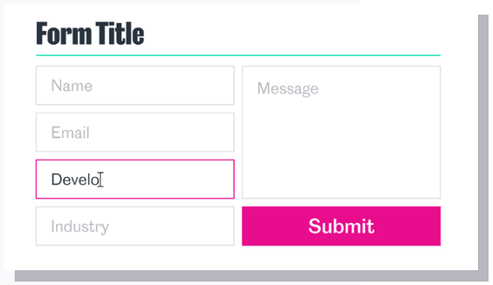
ATOMS

These are the basic building blocks of all matter. In a web interface an atom is a HTML (HyperText Markup Language) tag, such as a form label, an input or a button. Atoms can also include abstract visual elements and rules such as color palettes, fonts and animations. Like atoms in nature, these are abstract and not very useful on their own. They are useful as part of a library, as you can see all global styles at a quick glance.



MOLECULES

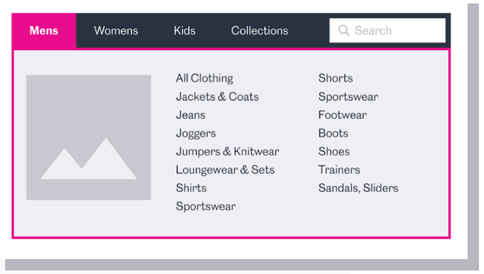
Molecules are created by combining multiple atoms together to create slightly more complex components. These molecules take on their own properties and serve as the core of the design system. A single label, input or button is not very useful on its own but combining them together into a form allows them to do something useful.



Creating molecules from atoms encourages a "do one thing well" approach; while molecules can be complex, they are typically quite simple combinations that are built to be reused.

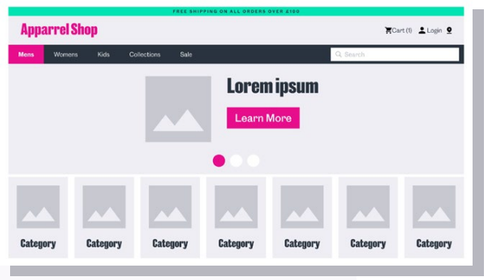
ORGANISMS

These are composed of multiple molecules to create more complex and useful components, such as distinct sections of an interface like a navigation menu.



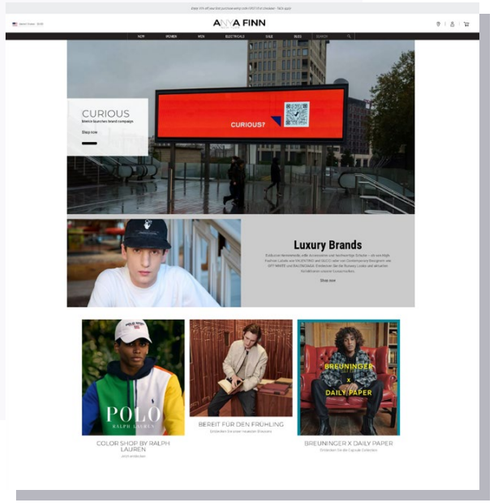
TEMPLATES

Let's break away from the chemistry analogy into a language that makes more sense for marketers. Templates are comprised of multiple organisms that are stitched together to form pages. Here we begin to see the layout of a digital platform.



PAGES

Pages are specific instances of templates which are accurate depictions of the final user experience. At this stage we can begin to test the effectiveness of our design system and loop back to modify other molecules, organisms and templates to address any issues. Variations can also be created to demonstrate how the experience will behave depending on the content inputs, such as a short title vs. a longer title.



Approaching headless backend and front-end development in the right way enables development teams to empower businesses users. Cross-functional teams can hold conversations on crafting digital experiences and quickly turn ideas into reality. Customer experiences designed in such a way maintain the flexibility of headless with highly reusable and consistent components.

The Need For Speed

Rendering a specific view in the PWA requires multiple parallel content and data requests. So it's vital to service these requests as fast as possible, with minimal latency. And it's the issue of latency that's one of the key reasons why legacy web-CMS and eCommerce platforms are unsuited to driving a modern PWA storefront.

What's needed is a queryable content delivery API that enables the PWA to return the right content or data (to render the experience) without having to load the whole graph.

It's an elegant solution that means PWA developers don't need to know what the structure of the experience is. Instead, they rely on a rules-based naming convention to construct the query.

To deliver the rapid load speeds that today's customers demand, Amplience's queryable content delivery APIs are engineered to return data in less than 35ms globally.

The Consequences of Going Headless

We've seen how moving to a headless commerce platform eliminates the web-CMS that provides critical experience management tools that business users depend on.

We've also explored how it's possible to model the missing configuration data (layouts, views, taxonomies and navigations) that define the structure of the experience in a headless CMS like Amplience and stored as data in the content graph.

With the right design system and content delivery APIs, content and data can now be quickly retrieved from the graph and used to drive PWAs that create rich, high performance digital storefront experiences.

But creating a solution that satisfies the needs of merchandizers, marketers and business managers depends on implementing three things:

- Suitable tools for defining storefront structure, including navigation menus
- Tools that enable the visual configuration of a PWA screen or view
- Workflows that transcend the CMS and join-up experience management and content production tasks.

The good news? Amplience has the answer to all these challenges.

At first glance this seems impossible. Because many headless CMS platforms lack the content visualization and preview capabilities that eCommerce teams need.

At Amplience we've created a rich choice of tools that simplify things for users and make it possible to easily deliver unique and exciting commerce experiences.

Want to see how we do it? Let's dive in.

LIMITLESS VISUALIZATION

At Amplience we use the PWA itself to render the experience side by side in the authoring interface, so content authors can see what happens the moment they make a change. Atomic, molecular and organism content types can be previewed in isolation or together with others at the template and page levels.

CONTROL YOUR SCHEDULE

Marketing teams typically work within calendar-driven campaigns with set dates and deadlines to drive business. Rather than just providing a simple form interface to manage content and deploy, we've engineered a calendar-driven view to enable planning and scheduling of content to match how marketing teams operate day to day.

We've paired this with our superior preview capabilities so you can preview your customer experiences at any given time in the future, not just the present.

EMPOWER YOUR AUTHORS

We also deliver more intuitive authoring controls via user interface (UI) extensions. These give content authors the exact content entry tools they need. For example, we have a UI extension that makes it simple to create a nested navigation menu.

Similarly, we offer merchandizing UI extensions that pull in product information (pricing, product descriptions and inventory) from external APIs (such as commercetools) to quickly assemble visual product grids and lists.

> "We offer merchandizing UI extensions that pull in product information from external apis to quickly assemble visual product grids and lists."

A TAILORED EXPERIENCE

Creating experiences that are contextually relevant, targeted and personalized is the key to unlocking customer engagement and achieving high conversions. But generating bespoke customer journeys requires a lot of content and a huge amount of curation.

These experience management tasks are time consuming and costly, and so cannot scale. Taxonomies, the ability to assign content to a category and Search APIs that enable granular content retrieval all allow for the automation of these tasks.

Amplience features strong taxonomy management tools that facilitate the set-up of sophisticated classifications that can then be applied to content. The Search APIs then enable the retrieval of these contents via the intersection of the required taxonomical terms.

The outcome is a truly dynamic digital experience solution that automates the production of millions of compelling customer journeys.

EVENT-BASED WORKFLOWS

As for workflows, Amplience features powerful event-based ‘webhooks’ that can be wired together with events from other systems to create powerful systems that incorporate both management tasks and processes.

These systems can integrate product workflows with marketing campaigns to enable the content planner that drives customer experiences.

> “Creating experiences that are contextually relevant, targeted and personalized is the key to unlocking customer engagement and achieving high conversions.”

Next Steps

Ready to Close the Experience Management Gap?

Want to know more about how a headless platform can take the heavy lifting out of digital content, improve your eCommerce experience and give you the freedom to focus on the things that matter?

Get in touch with our expert team by emailing contact@amplience.com or visiting amplience.com

Amplience powers digital-first brands and retailers with the freedom to do more. Our low-code CMS, DAM and Digital Experience Management platform allows more than 350 of the world's leading brand teams to manage content, not code. The result is a rapid ROI for our clients who are delivering data and insight-driven customer experiences that drive deeper, more valuable customer relationships. Amplience supports the industry's transition to Microservice, API-first, Cloud and Headless (MACH) technologies, is MACH certified and an executive member of the MACH Alliance.

Named a Strong Performer, Amplience was recognized by Forrester in The Forrester Wave™: Agile Content Management Systems (CMSes), Q1 2021 report with the highest possible scores attained in the criteria of decoupled delivery, deployment and system performance, components, and marketplaces.

Powering customer experiences for the world's most innovative brands, Amplience's customers include Ulta Beauty, Coach, GAP, Crate & Barrel, Harry Rosen and Missguided.

Experience
FREEDOM

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