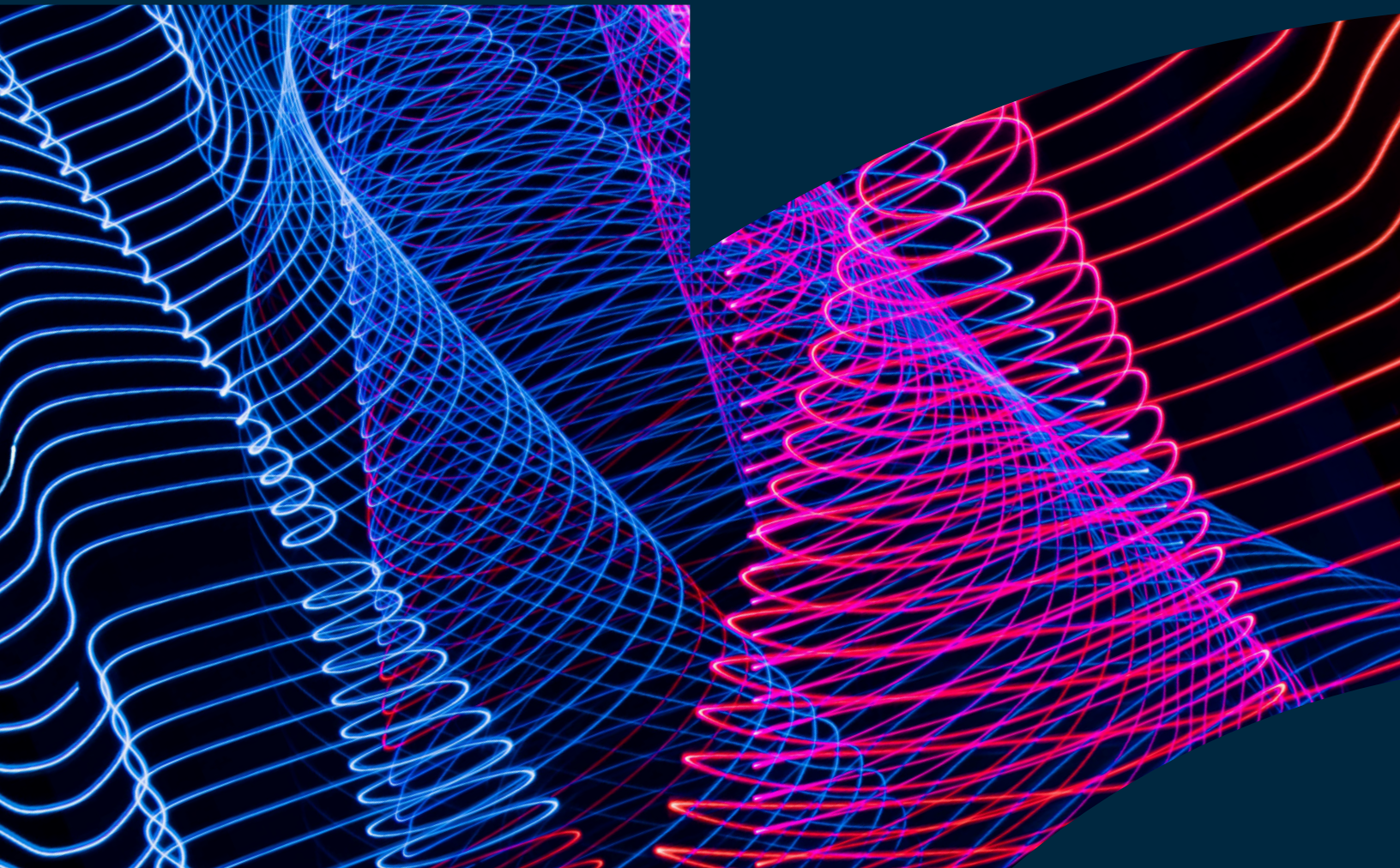


# A Guide to Digital Experience Platforms

What is a **Digital Experience Platform**?  
And more importantly, why do you need one?



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# Introduction



# Introduction

The marketplace today is in transition. Digital has become the paramount way businesses not only find customers, but also how they engage with them. The digital experiences they deliver mean the difference between developing a long-term profitable relationship with the customer or losing them to a competitor, and maybe never seeing them again. That is true in both consumer-facing business and in B2B.

The good news is many business leaders agree. In our most recent 2021 edition of [The State of Commerce Experience Report](#), **76% of digital business leaders agree that 'Digital is the future of our company -- if we do not succeed in digital, we will not have a business at some point in the future.'**

## The State of Commerce Experience 2021

An annual study on the **latest digital commerce trends** and global consumer shifts

[GET THE REPORT](#)



Those are high stakes. And yet the technology stack businesses are using today is not keeping up. **Commerce platforms lack the ability to drive personalized engaging experiences.** Content Management Systems (CMS) are too slow and siloed. Personalization solutions lack data needed to drive holistic relevance. And marketing systems are aging, lack integration, and operate in silos.

A new solution is needed for today's businesses to drive the end-to-end personalized experiences that both delight their customers and provide their organizations with the efficiency and agility they must have to compete now and into the future. This is the gap the Digital Experience Platform (DXP) is here to solve.

### **Inside this e-book, you'll learn about:**

- The origins of a DXP and how it evolved
- How Bloomreach defines a DXP
- The critical components necessary for a DXP to drive value
- Why Bloomreach is the right choice to unlock further growth and future-proof your commerce experience

**Let's get started.**

**Today's digital-first businesses need a modern, API-first solution that helps both the business and developer innovate and drive their business.**



**Definition:**  
**What Exactly is a DXP?**







# Definition: What Exactly is a DXP?

Gartner defines a Digital Experience Platform (DXP) as "an integrated set of technologies, based on a common platform, that provides a broad range of audiences with consistent, secure and personalized access to information and applications across many digital touchpoints."

This is quite a mouthful! Put simply, as the bar for customers' online expectations rises higher and higher, brands need to keep up and use technology to speak to those customers in a highly relevant way.



While this definition may serve as a useful introduction, it falls short in some ways. For example, the [Gartner Magic Quadrant for DXPs](#) includes many players traditionally from the Portal, CMSs, and marketing suite spaces that have a host of solutions that require significant integration investment by their customers before they deliver real value.

At Bloomreach, we consider the legacy commerce platforms, CMSs, and martech stacks as belonging to a different era. **Today's digital-first businesses need a modern, API-first solution that helps both the business and developer innovate and drive their business.**

A Digital Experience Platform must be a solution built to drive dynamic customer experiences in a scalable way, leveraging machine learning to complement what business people are doing to accelerate their business' success.

**Bloomreach defines a DXP as a combination of different capabilities (e.g. search and merchandising, marketing automation) from different domains (e.g. product discovery, engagement, content) coming together to enable a business to drive a dynamic, personalized, and relevant customer experience through their digital channels.**

FROM OUR BLOG

Driving B2B E-Commerce Excellence:

# The Critical Role of a Digital Experience Platform (DXP)

[READ THE ARTICLE](#)



The Evolution of the Digital Experience Technology Stack:

# From Application Software to Platforms



# The Evolution of the Digital Experience Technology Stack: From Application Software to Platforms

To truly understand what a DXP is, what it does, and what it offers, it is helpful to trace the evolution of the early digital experience tech stacks to the powerful platforms that winning businesses use to drive competitive advantage.

In the past, application software was used to publish a website -- yes, a single website. Businesses selling online would use an e-commerce platform or a CMS to publish their websites. It became very challenging though to manage these effectively and keep them up-to-date as websites proliferated and the needs of the businesses required rapid innovation. These tools and systems were appropriate for the era of digital marketing when marketing teams would build a website, run campaigns primarily on Google and Facebook, and many website experiences looked and felt the same.

**"You can only touch so much of the web experiences your business is driving. You can only set so many rules. There is a clear limit. I used to think of it as the law of 8 -- you can only manage 8 versions of the web experience before it gets completely out of hand and becomes unmanageable."**



**Brian Walker,**  
Chief Strategy Officer,  
Bloomreach

Fast-forward to today, the era of digital business, where brands are creating unique experiences for each customer across a range of digital touchpoints like sites, apps, mobile sites, kiosks, and in physical stores.

This requires a completely different technology set to deliver the agility and scale needed: an API-first software-as-a-service (SaaS) platform with tools for both the merchants, marketers, and developers to work quickly, and with machine learning there to enhance and support the personalization needed to maximize business results.

Winning digital experiences are built on a DXP -- by 2025, the global DXP market size is anticipated to be valued at \$15.90 billion.

They collect cutting-edge technology such as AI on a common platform that delivers agile, personalized, scalable performance. A DXP is a new platform that harnesses these powerful technologies to transform digital experiences into engines for innovation, agility, and growth.



## How Boden Personalizes Every Visitor's Experience



## Q. What makes a DXP different from a CMS or WEM?

"It comes down to managing the experience. With web content management/CMS, it was all about building, launching, and changing a page. With DXPs, there is a paradigm shift: we're now managing objects like content blocks and products, which are dynamically generated to ensure they are most relevant to the end customer that's seeing it.

It leverages real-time personalization and segmentation to make those decisions about what's most relevant. The customer experience can be adapted in real time based on how a customer is navigating and each page experience will be different for each customer -- with the priorities and controls a marketer or merchant needs to put in place. With web content management systems, it's very prescriptive and difficult to scale."



**Brian Walker,**  
Chief Strategy Officer,  
Bloomreach



# The Components of a Modern DXP



# The Components of a Modern DXP

A modern DXP is open, intelligent, and comes with a number of tools and capabilities to optimize and personalize digital experiences. Let's take a closer look at these components and features.

## A Strong Foundation in Data

Scaling personalized digital experiences requires a platform with a deep understanding of customers and products. At its core, a DXP must have a strong foundation in data.

The data comes in the following forms:



**Product data:** The products you offer and their attributes (for example, a lamp can be of various sizes, types, or makes).



**Content data:** Typically the articles, videos, and images that describe your offering.



**Marketing data:** The campaigns, creatives, email lists, mobile numbers, and other data you may use in your digital marketing programs.



**Interaction data:** The various clicks, swipes, email opens, views, locations, and other ambient data about your customer.



**Transactional data:** The past purchases or transactions customers may have made.

# Openness

A great DXP should offer the ability to connect to third-party systems so communication can flow between them. Openness also comes in the form of data being able to flow in and out easily.

An example of what this might look like in practice is a retailer using past purchase data from another system or store to allow customers to build out their shopping lists without having to remember what they bought previously.



Digital experiences are made of lots of different components. No single DXP can offer every single component needed. This is why component development must be open and democratized for a new era of [composable commerce](#).

**Microservices architecture** enables this. It means the back-end logic is decoupled from the front-end presentation, so developers and marketers can make changes quickly and independently of each other. This also means that improvements can be made modularly, and changes can be deployed in one area without disrupting the rest.

## The Emergence of Headless

In simple terms, headless commerce is the separation of the front end and back end of an e-commerce application. This architecture offers businesses the freedom and flexibility to build whatever and how they desire. It also enables them to enrich the customer experience. The term was originally coined by Dirk Hoerig, co-founder of commercetools, in 2013.

While headless commerce enabled getting away from sub-par CMS capabilities offered by e-commerce platforms, headless CMS is about leaving behind any manner of front end managed by business users and letting developers use the latest front-end technologies of their choosing.

In this way, headless allows developers and business users to work together to create experiences that weren't possible before because of the limits of front ends tied to CMS vendors and their capabilities. This trend has become a key part of DXPs.

**"A big industry shift was decoupling the commerce engine from the experience, which has happened over the last four or five years. All of the software vendors, which used to be focused on commerce, started to focus on the transactional elements -- making sure that all the products are delivered, pricing, the logistics -- and looked to another platform to deliver the commerce experience. That big shift created the window for Bloomreach, in which we could really focus on how you use AI to drive a better customer experience.**



**Tjeerd Brenninkmeijer,**  
Executive Vice President,  
Bloomreach EMEA



# Built-in Algorithms Backed by Artificial Intelligence

The ability to ingest and understand these varying types of data is what distinguishes a modern DXP from the tools and systems that came before.

Your experience spans across a growing number of touchpoints, you have data flowing in from multiple sources, and your business is continuing to grow in customer base and in products and services offered -- how do you continue to maintain and improve it? Even more importantly, how do you find time to innovate?

Artificial Intelligence is the key here. It can assist you all across the experience, from doing the grunt work that powers personalization to discovering hidden insights within your data.

Having AI sitting at the heart of your experience not only means it can use the connected data to give your customers what they are looking for, but it can also use that data to show you insights you didn't even know were there to look for.

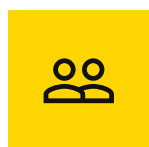
A modern DXP should have customized algorithms that learn and improve the experience over time.



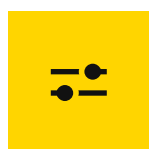
**Artificial Intelligence  
is the key here. It can  
assist you all across the  
experience, from doing  
the grunt work that  
powers personalization  
to discovering hidden  
insights within your data.**

While older DXPs have manual mechanisms allowing users to make sense of data, modern DXPs have built-in algorithms backed by artificial intelligence.

## There are four core types of algorithms:



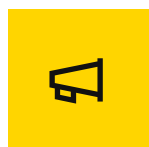
**Personalization:** These algorithms understand customers and ensure that the offerings you put in front of them represent your best understanding of their current intent. Personalization algorithms ensure that each of us gets our unique experience.



**Relevance:** Such algorithms take what the customer explicitly expresses, perhaps by entering something in a search box or by scrolling through your app, and ensure that the right offering is presented to them. Relevance algorithms ensure everyone has a baseline relevant experience.



**Business optimization:** What if you offer different types of sweaters and they are all a good match for the customer? Business optimization algorithms will rightly display the sweater that maximizes revenue, profits, or some other business goal for your digital business.



**Marketing optimization:** Digital experiences are certainly about the experience, but they are also marketing vehicles that we run our campaigns against. Marketing optimization algorithms ensure that we show up in search engines, social media feeds, email messages, and other marketing tactics.

The DXP, sitting at the connected heart of the experience, should be the place where this intelligence is housed and can talk to your entire solutions toolkit to keep learning about your visitors and continuously, automatically, improve their experience. It's only then that true personalization can be achieved.





# Tools and Capabilities

To help businesses personalize and optimize experiences, a DXP should come with the following tools and capabilities:

- ✓ **Channel management:** The ability to manage multiple channels -- various websites, mobile applications, voice interfaces, or other customer-facing channels.
- ✓ **Digital merchandising:** The ability to take products and services and display them in the way that most effectively drives outcomes.
- ✓ **Content management:** The ability to edit, manage, preview, version, and otherwise manage the content elements of an experience.
- ✓ **Recommendations:** The ability to build unique personalized recommendations so that various cohorts of customers can benefit from the wisdom of similar users or buyers.
- ✓ **Search management:** The ability to manage the search capabilities to assure that the most relevant content or products match what the user is looking for.





**Insights:** The ability to deeply understand customers, products, and content elements to continuously recommend how experiences might improve.



**Testing and targeting:** The ability to select specific groups of customers, offer uniquely targeted content or products to them, and then test against the target key performance indicators and iterate toward better results.



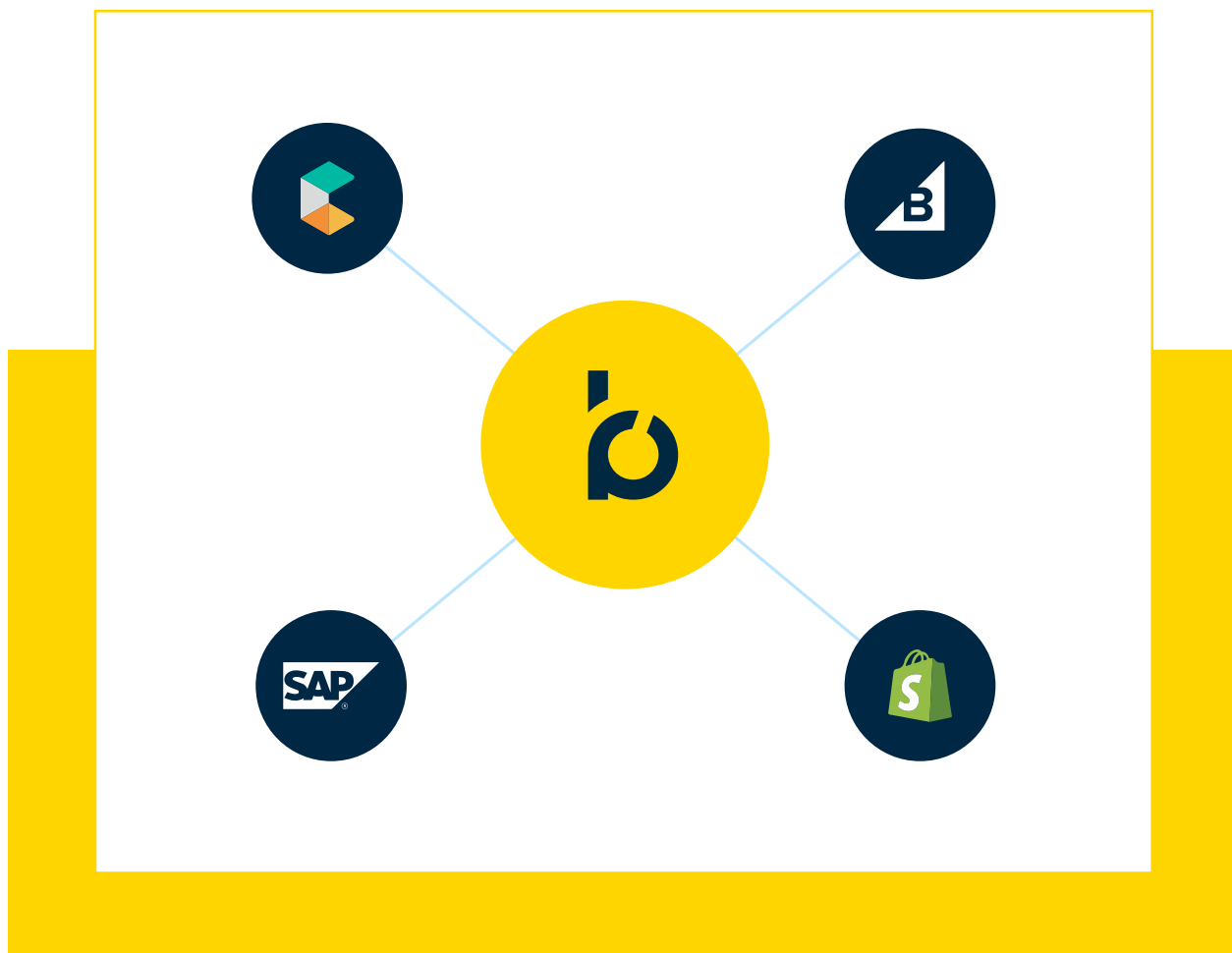
# API-First Architecture

No one single suite or vendor can allow a company to manage its entire digital experience. In the fast-growing martech space, businesses should have the freedom and flexibility to innovate by being able to add or replace solutions with minimal disruption to the experience as a whole.

While DXPs come with pre-built capabilities, they should be able to easily integrate with a variety of data sources and systems. This is where API-first design comes into play.

While AI is one baseline technology that forms the core of a DXP, another key component of a DXP are **application program interfaces (APIs)** in the cloud, which ensure the right experience can be delivered to a user at the right time, no matter how they choose to interact with a business.

A great DXP offers a robust collection of APIs that developers can connect to their front end application. The APIs enable a DXP to be consumed modularly, giving businesses flexibility and the ability to iterate as market demands and consumer behaviors and expectations evolve.



With so many customer interactions on multiple channels, touchpoint control is top priority for many modern businesses.

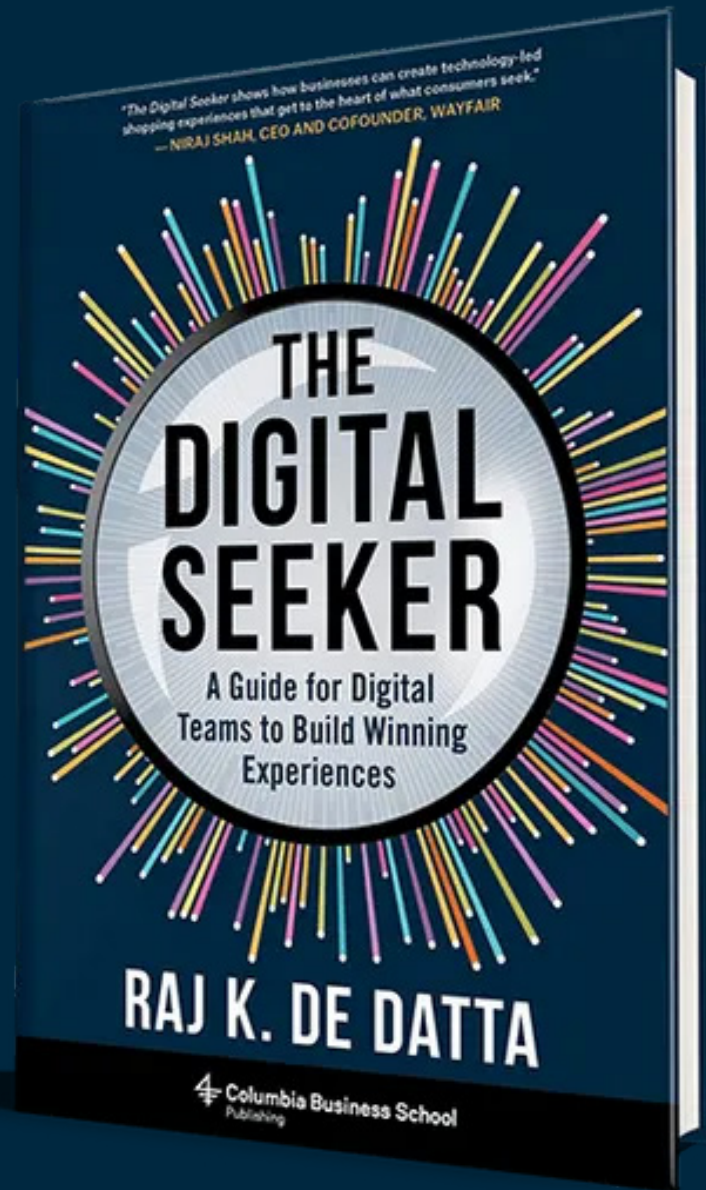
With APIs, raw information is shared in a pre-defined way so that each touchpoint can present that raw information in a structured way.

Put simply, if you update documentation on one digital channel, APIs ensure that documentation is updated on all other touchpoints.

Or if a retailer wanted to update its pricing logic once and share it wherever else that information needs to be available (buy buttons on social, third-party retailers etc.), this is made possible with API-first design.

### **Designed for Disaster**

A DXP should offer protections against biases and faults. Key factors to consider are: data privacy, security, reliability and performance of systems, and the principles of diversity and ethics in pre-built services powered by AI.



## Read About Designing for Disaster in The Digital Seeker Book

[LEARN MORE](#)



# Not all DXPs are Created Equal

(The Solution Landscape)





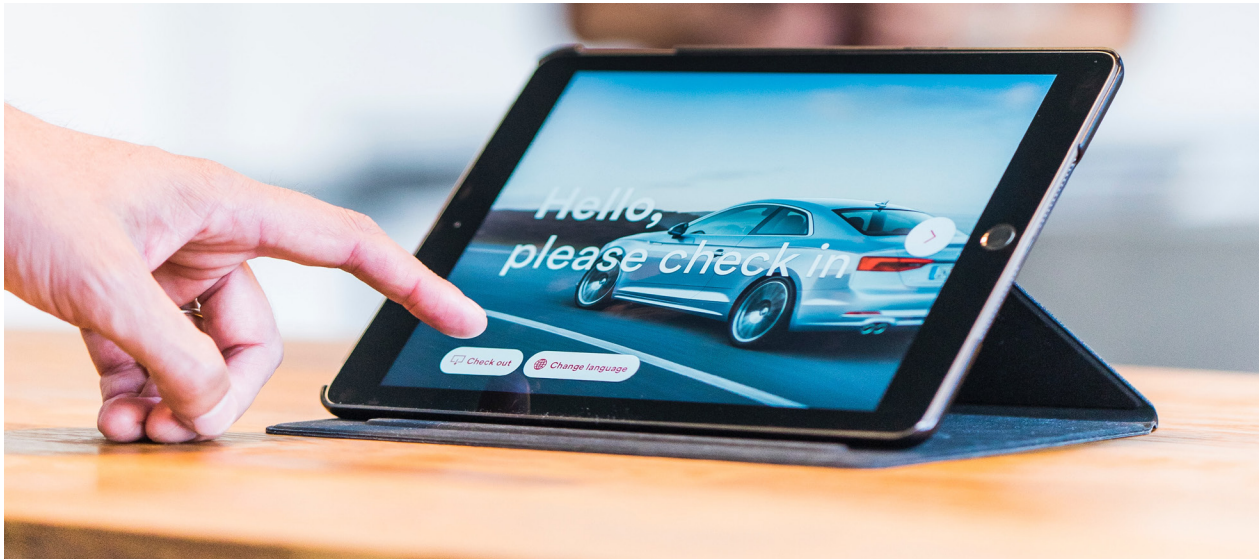
# Not all DXPs are Created Equal (The Solution Landscape)

By now we know that most DXPs in the market today are solutions that grew out of the web content management systems market (CMS and WEM), and are suites of many different applications assembled and cobbled together. These are costly to integrate, manage, and maintain. Companies have been too long held back in terms of innovation and the ability to launch digital experiences and properties quickly.

**"Your average enterprise has seventeen different content management systems and an equally fragmented environment for customer data, for marketing systems, and for everything else. Often the technology was selected by predecessors. Sometimes it comes in through acquisition. Either way, dealing with heterogeneity is the norm, not the exception."**



**Raj De Datta,**  
CEO and co-founder,  
Bloomreach



A modern DXP is a platform that leverages data and AI to augment what the business is trying to do to deliver a personalized experience that's consistent and contextual across all their digital touchpoints, including marketing.

A DXP leverages customer and product data to drive automation, streamline the merchant and marketer's experience, and ultimately drive personalization at scale. By contrast, web content management systems and the assemblage of application suites can't achieve this because they lack the underpinning of the data platform with AI and machine learning to drive that.

Bloomreach is a DXP with a difference. It is a unified DXP purpose-built for digital commerce, based on modern technology and with highly effective business user tools that give businesses the flexibility to adapt to new touchpoints and innovate quickly.



## **N Brown's Digital Transformation with Bloomreach**

**Fashion e-tailer N Brown has already implemented Bloomreach technology across its strategic brands. This uses machine learning and artificial intelligence to offer advanced merchandising tools and includes the ability to personalize its approach.**

**Bloomreach has already driven a 19% increase in click-through rates from search to the relevant product page and a 55% reduction in 'zero results' across its strategic brands' websites.**

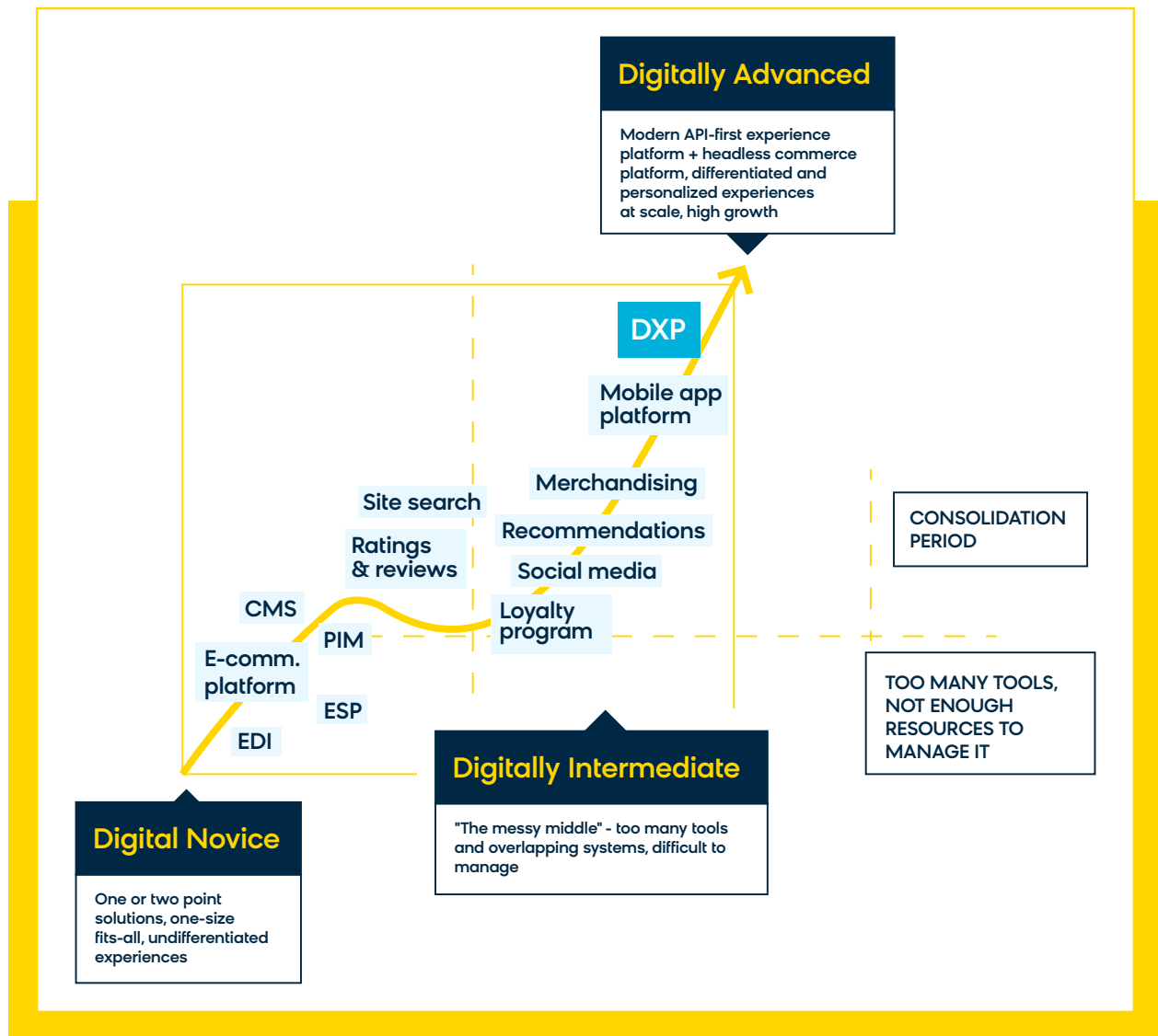
## E-commerce Technology Stack and The Digital Maturity Curve: A Paradigm Shift

In the graph below (see next page), digital novices are seen to rely on one-size-fits-all e-commerce platforms or a small number of point solutions. As companies grow, they begin to have too many overlapping systems from the point solutions they've outgrown.

This is the “messy middle” where businesses often have too many tools and solutions, and not enough resources to manage them or optimize digital experiences.

At this point, businesses hit a lull period. It is only when they begin to consolidate their tools and solutions, investing in a core platform aligned to their strategy plus best-in-class solutions, that they begin to see high growth.

Digitally mature businesses that want to differentiate themselves and innovate at scale choose a DXP like Bloomreach.





# The Advantages of a Modern DXP



# The Advantages of a Modern DXP

E-commerce experiences that were once supported by old commerce clouds or monolithic DXPs are now shifting towards a more modern technology stack: a combination of headless commerce platforms and composable DXPs. Let's take a look at the fundamental differences and what advantages you can expect from a headless and DXP-led commerce strategy.

Modern technology stack / headless platforms and composable DXPs		Legacy technology stack / monolithic platforms
Full experiential control	↔	Inconsistent experiences
Ability to stand up a storefront rapidly	↔	Years to implement a storefront
More cost-effective (hundreds of thousands of dollars)	↔	Costly (millions of dollars)
Unlocking revenue growth		Yield less revenue growth
Faster time to market		Slow to implement and integrate
Innovate, design, and build experiences for the future	↔	Less flexibility to iterate and build new experiences
Unique and differentiated experiences	↔	Experiences look and feel the same
The experience keeps getting better with AI that learns and can predict what should happen next	↔	Experiences fail to adapt to customer expectations and market demands



An AI-powered, API-first DXP purpose-built for commerce gives digitally mature organizations the agility, flexibility, and speed to optimize unique experiences that are set apart from their competitors. This ultimately benefits the customer or “digital seeker” and unlocks future growth for businesses.



Webinar Video

## What advantages does a DXP have for B2B businesses?

[WATCH ON DEMAND](#)

# Choosing a DXP for your Business

Some companies believe that the best way to create better digital experiences is to build the software entirely themselves. With this approach, millions of dollars are invested into building technology only to find that much better capabilities and services existed and were offered by other firms that specialized in them.

Building software is complex. Our advice? Don't build it. Instead, invest and buy a platform built by a specialized team of people.

## On Build vs. Buy

**"Some businesses choose a bunch of point solutions and custom development, but this is very expensive, difficult to manage, and doesn't have the same benefits."**



**Brian Walker,**  
Chief Strategy Officer,  
Bloomreach

# 5 Reasons you Need a DXP

- ✓ You have **multiple touchpoints** and a diverse audience
- ✓ You have a **significant business stake** in digital
- ✓ **Multiple back-end systems and front-end tools** are currently in silos along the experience
- ✓ You're **wasting tonnes of resources, time, and money on integrating solutions that don't work** effectively together
- ✓ Marketers and developers in your business are hungry to **innovate with highly differentiated customer experiences**

Deciding if you need a DXP requires a critical look at where your digital experience is today and, even more importantly, at what level you want it to perform in the future.

Ultimately, the right platform is the one that efficiently supports your needs at the right level.



**Why Bloomreach Experience™  
is the Right Choice**



# Why Bloomreach Experience™ is the Right Choice

Bloomreach is a digital experience platform purpose-built for commerce. It is the only platform that combines deep customer data with deep product data, along with commerce-specific AI models that optimize for revenue growth.

It is an API-first platform built on modern architecture. Customers have the flexibility to use the platform in a modular fashion to complement a headless, microservices strategy.

Bloomreach has 12+ years of practical AI and ML experience with tools to drive proven business outcomes in commerce and powers over 25% of all U.S. and U.K. commerce experiences, with a deep understanding of products and people in order to deliver personalized experiences for customers.

**"Our thesis at Bloomreach is that our commerce experience platform is different because it's a DXP where it all actually works together in a headless fashion and leverages data to drive personalized relevant experiences that compliment the marketer and merchant."**



**Brian Walker,**  
Chief Strategy Officer,  
Bloomreach

The platform connects easily to a commerce platform of choice, which manages transactions. An IT team can choose a front end of choice: React, Vue, or any storefront. With those in place, customers get to spend the majority of their time and effort actually optimizing the experience and differentiating their business.

**Bloomreach  
has 12+ years of  
practical AI and  
ML experience  
with tools to drive  
proven business  
outcomes in  
commerce**





# Bloomreach has the following solutions to help you do that:

## Discovery

Product and content search, merchandising, SEO, and recommendations in one place, backed by an AI engine built with more than a decade of data.

## Content

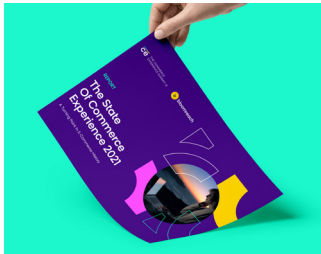
A headless CMS with the APIs and flexibility to power any front end while retaining powerful personalization and authoring capabilities.

## Engagement

World-class CDP capabilities seamlessly integrated with omnichannel marketing automation delivers experiences so personalized, they feel like magic.

It's time to modernize your digital experience technology stack with composable architecture and a modular approach.

# Related Resources



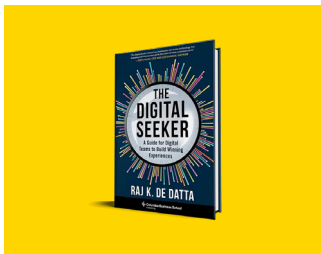
The State of Commerce  
Experience Study 2021

[Access Report](#)



Closing the Experience Gap  
Between B2C and B2B Commerce

[Watch on Demand](#)



The Digital Seeker: A Guide for Digital  
Teams to Build Winning Experiences

[Learn More](#)



Bloomreach is the leader in Commerce Experience™ — empowering brands to deliver customer journeys so personalized, they feel like magic. Bloomreach Experience, the digital experience platform built for commerce, includes three pillars: Discovery, offering AI-driven search and merchandising; Content, offering a headless CMS; and Engagement, offering a leading CDP and marketing automation solutions.

Together, these pillars form the only platform that combines the power of unified customer and product data with the speed and scale of AI-optimization, enabling measurable digital commerce experiences that drive real results.

Bloomreach serves over 700 global brands including Albertsons, Bosch, Puma, FC Bayern München, and Marks & Spencer, and powers over \$250 billion in commerce annually.



**BOSCH**



**M&S**

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**GET STARTED**

