altis

{white-papers}

DXP

Demystifying the Digital Experience Platform for Enterprise

From content management to
AI-based personalisation

CONTENTS

It's all about
your users

Customer experience has been at the heart of all successful business for years. Today, a Digital Experience Platform brings together learnings from across the digital and technological world to deliver personalised experiences that drive business value using advancements in machine learning. However, as is often the case when new technology enters a well-established tool stack, decision makers may be left with more questions than answers.

- **How does a DXP differ from a CMS?**

- **What value can a DXP bring to your business?**

- **Shoud you care?**

The quick answer is yes, you should, and we're going to explore why throughout this white paper.

First, in order to take you past the buzzwords, the superlatives, and the pie charts for a moment, **here is a simplified version of what a DXP can do on top of classic content management:**

1. An algorithm can **track and learn what users do** when, where, and why on your website, and other digital channels.
2. Normalise those learnings into **categorised clusters of data.**
3. Leverage the data to present individually **personalised content and UX across all digital touchpoints** in order to drive conversion and reduce churn rates.

A Digital Experience Platform is all about making your product or service even more relevant for your customers, through personalisation.

Will the DXP replace the CMS?

Not at all.

While omnichannel marketing has added a number of possible touchpoints to the digital customer journey, the content presented over those touchpoints still makes up the majority of your customer's experience.

Designing the modern customer journey requires a robust, API-first content management system at the core of your publishing tool stack. This should be flexible enough to deliver reusable units of content across the omnichannel landscape: create an FAQ item once, and your CMS must be able to deliver it to an FAQ web page, a single-page app, or a chat bot.

Not only does the CMS remain the foundation of content creation and management – it has gained even greater relevance.

|	CMS	DXP
Create/manage content	+	+
Deliver content through open APIs	+	+
Track/analyse user behaviour	-	+
Personalise content	-	+

However, the classic CMS does lack intelligence to meet the expectations of users and customers in the digital age. It may identify a returning user, or a signed-in customer with the help of a trivial cookie, but any personalisation of what they see where, and why, needs to be hand-crafted according to manually defined rules.

In order to be able to create those rules, marketing teams need to collect and analyse data from multiple, often isolated sources. Getting decent data can be a tedious process, and without the help of machine learning it usually doesn't scale for enterprise applications with thousands of customers.

This is where DXP enters the picture.

The DXP automates the process of getting to know your customers individually, helping you deliver personalised experiences in real-time.

If we compare the CMS to a restaurant kitchen, and your content managers are chefs, a DXP algorithm would be the waiter who will not only greet a patron by their name, but can also recommend a meal and beverages, based on learnings from the customers previous visits and the way they pick up the menu.
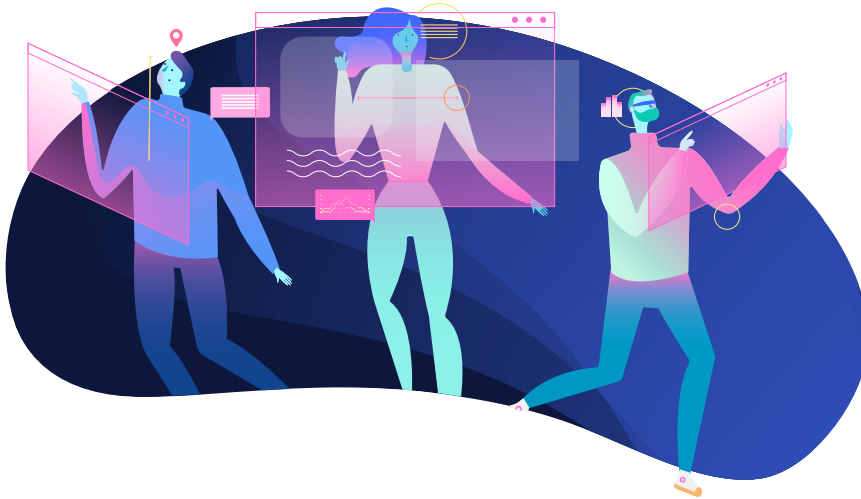
"Will we have to abandon our CMS and move to a dedicated DXP provider?"

No, in many enterprise use cases moving an entire publishing stack to a dedicated DXP provider is not necessary. Particularly larger publishers and e-commerce businesses that have invested in building bespoke DXP features into their existing stack, and profited from it.

1 https://www.
salesforce.com/
research/customer-
expectations/

² https://www.
evergage.com/
blog/press/new-
evergage-study-
shows-compelling-
personalization-
benefits/

³ https://www.
dynamicyield.
com/2015/08/the-
age-of-the-cx/

Does it matter? – Statistics on personalisation

One-to-one customer relationships have become imperative for business success. The following stats help us get a birds-eye view on the current situation:

84%

of consumers expect to be treated like a person, not a number.

70%

believe a business understanding *how* they use products and services is very important in order to convert them into customers.[1]

Businesses that have reacted to that trend and invested in personalisation across their digital channels have compelling results to report:

88%

out of 206 marketers surveyed by Evergage say they saw a measurable increase in business results in correspondence to their personalisation programs, **with more than 53% reporting an increase greater than 10%.**[2]

80%

of companies' revenues come from 20% of their customers, but **more than 50% of companies are unable to identify their most loyal customers.**[3]

These results gain dramatic significance when put into context with another survey conducted with **550 worldwide shoppers** on the state of personalisation in **email**.

https://www. dynamicyield. com/2018/01/50- most-important- dynamicyield- personalization- stats/

71%

of consumers believe personalised experiences would influence their decision to interact with **emails**, however...

3/4

consumers in North America felt that email content was not personalised for them.

63% rated product recommendations emailed to them by retailers as *irrelevant*.

Inside the digital journey

In order to grasp the user-centric omnichannel approach of DXP, as opposed to a single digital channel such as a website, we have to take into account the ambiguity of the term *experience* in the context of today's digital extensions of human existence.

Because at its core, experience is dramatically personal and depends on a myriad of factors no marketing framework or platform has ever been able to standardise.

I. "Where do you want to go today?" – The promise of Personal

When Microsoft launched their Windows 95 operating system in to a world that most of today's digital audience have either never set foot in, or long left behind, they did so with a daring promise wrapped into a trivial question:

"Where do you want to go today?"

Whether or not Microsoft were able to keep their promise of infinite personal freedom in the digital realms, is of little significance compared to the inconceivable reach of their message.

"Where do you want to go today?" engraved the image of the user, each of us, onto the

motherboard. In seven words Microsoft signed a mission statement for generations of engineers and designers: to serve, protect, and ever enhance our personal experience of digital.

II. "Owning the customer's journey" – The experience paradox

The promise of freedom over our personal digital experience contains a secret small print that has gained tremendous importance since the days of Windows 95.

On the one hand, human experience is subjective, intimate, utterly irrational more often than not, and personal – it belongs to the individual. The answer to *"Where do you want to go today?"* comes in first person singular.

On the other hand, human experience can be designed externally. It shapes a major portion of our concept of reality and is generally declared fair game – a game controlled, tracked, and tweaked by vendors and merchants in order to drive profits.

Brands are being told to "own the customer journey" along all touchpoints, but too easily "owning" is confused with possessing, rather than to be responsible for. **Owning the customer journey means to keep human individuals out of harm's way while they navigate from touchpoint to touchpoint, and to make sure their experience with your brand is frictionless at worst, delightful at best.**

How do you own (and protect and guide) a person's moves through digital? How do you get inside the vast entirety of human experience when your already two-dimensional access is limited by time, technological restraints, and privacy regulations?

III. The end of Average – Humanising Digital through AI

As humans, we crave to be welcomed, considered, and treated individually; yet for centuries, we have built technology based on assumptions about an artificial average. Even for the small amount of time that makes up the growth of the web in tech history, the best we had to offer to humanity as producers has been to improve data on what we considered average enough to base our decisions upon.

The result, despite tech's tendency to glorify itself, could be called a human catastrophe: platforms fostering addictive behaviour, disease-causing interface design, biased algorithms, and non-accessible websites built on bandwidth privilege. But most importantly, the ubiquitous, all too common experience of *failing against a machine* that just wouldn't behave how we need it to.

If feelings of failure have clouded a significant portion of the experience of digital for humans, with the rise of the Digital Experience Platform, personalisation seems to renew the promise from its early days of *"Where do you want to go today?"*.

What if a **person's experience of digital wasn't defined by the tiring labour of extracting bits of meaning from behind a two-dimensional wall of pixels**, but meaning was to present itself graciously and with empathy on their individual quest?

What if people returned to your website, because for once in their digitally enhanced existence **an application was considerate enough to serve *their* needs and preferences, dance to *their* rhythm** instead of forcing them, the human, into the I/O staccato of machine consequentialism?

What if the user interface surrendered and truly learned to serve its one and only purpose of existence: the human individual?

The Era of Average where a one-to-many approach, based on a common denominator, seemed good enough to drive business has come to an end. AI-based personalisation has shifted the perspective in content curation and online publishing, and a new type of platform has emerged to unify and humanise the customer journey across all channels, making one-to-one customer relationships at scale a reality.

Personalisation examples

Building long term relationships: How MittMedia personalise the daily news

Swedish publisher MittMedia is killing the news feed. Instead of editorial staff publishing pieces of content, their newsrooms produce a pipeline of ready-to-go items, picked up by algorithms and delivered as personalised article lists to paying customers. There isn't one news feed anymore; there are dozens, or even hundreds.

The company whose history roots back to 1895 relies on a subscription model for sustainable monetisation; in other words, they need to get people to pay for headlines—a treacherous cornerstone to build a fortress upon in the realm of digital news ruled by social media.

MittMedia have been around long enough to not be fooling themselves. They mined for wisdom, and in the tunnels of their data this is what they found:

- The conversion rate of returning users, and the churn rate of paying customer is directly linked to the content people are able to find on the platform.

- The more relevant that content is to the individual, the more likely they are to sign up for, or renew a subscription.

To combat the digital publisher's challenge of how to make people pay and stay, MittMedia have discovered their counter-spell: Personalisation.

"[A] user being exposed to a personalized list of article recommendations [...] will read more articles than a user being exposed to a list with articles selected through a generalized selection [...]. The user will then be more inclined to convert to a paying customer. The same approach is also true for already converted users, where a more relevant content mix would lower churn rates [...]."

Giving paying readers "what they want, when and where they want it" could pose an insurmountable challenge for a less experienced publisher.

For MittMedia, with over 20 titles in their portfolio, and over 120 years in the printed news business, personalisation is the key that unlocked the untapped potential of their content inventory.

By employing machine learning to deliver personalised article lists on a cluster-individualised level across their digital ecosystem, the company is re-defining traditional newsroom workflows. Not only will algorithms publish the news, they are also designed to provide feedback to editorial staff members.

"The role of the machine [...] interface will be to represent the end user [...] towards the editorial staff."

As a consequence, an editor's "gut feeling" ceases to be a metric for when the news get published. Human resources, according to MittMedia, are to be reserved solely for the lean production of unique editorial content – content the distribution of which is optimised and executed by a personalisation service based on machine learning.

Quotes from:
*https://
medium.com/
mittmedia/soldr-
personalization-
service-mittmedia-
innovation-
for-survival-
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5 http://www.
niemanlab.
org/2018/02/
not-all-news-
site-visitors-are-
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ones-who-will-pay-
up/

Knowing who will pay up: Schibsted's prediction model

If you happen to be among the 1.2 million readers of Norway's largest newspaper *Aftenposten*, and you have signed up for a free reader account online, the site knows if you are willing to pay for a subscription before you do.

The technology that is able to read a reader's mind ahead of time runs on an algorithm that has been trained to identify the browsing behaviours of registered site users who will go on to subscribe. So far it has been able to **identify groups of readers three to five times more likely than average to buy a subscription.**

Once identified and clustered into groups, these user accounts can be targeted with personalised content; they are 22% more likely to subscribe, and required 35% less spending on advertising.

"What we didn't really know before this project was how user behaviour on the site relates to purchasing subscriptions. [...] What [...] are the characteristics and patterns of those users who end up wanting to buy a subscription? [...] Trying to crack that, and predict behaviour, was the main business problem we had wanted to solve for." [5]

Online isn't the only space where the algorithm has hit home. The omnichannel dimension of their prediction model became clear when Schibsted's marketers started to target user groups identified by the algorithm by calling them up at home; subscriptions sold over the phone increased from 1% to 6%.

As one of Europe's largest media groups, Schibsted have been in the print publishing business for more than 150 years. Like many other larger publishers, the company began innovating around paid subscriptions in the wake of social media siphoning off significant traffic for the daily news.

Today, Schibsted are aiming to move their total count of digital news sites subscriptions in Norway from 160,000 to 200,000 in 2018: a number that is equivalent to 3.85% of the country's entire population. The success of their prediction model has drawn noticeable attention from other media groups who have asked about licensing the tool, demonstrating a clear indicator of the value publishers currently ascribe to the power of a personalised digital experience.

MorphL: Interview with Ciprian Borodescu, co-founder and CEO

Caspar Hübinger: How should enterprise decision makers think about MorphL? A "plug and play" component in their tool stack? A library to build bespoke applications from? Something else?

Ciprian Borodescu: We position MorphL as a strategic solution for enterprise companies wanting to AI-enhance their digital products. At a very high level, MorphL is the type of solution that harmonizes the marketing and technical departments.

MorphL is an open-source framework that uses machine learning to predict user behaviors in mobile and web

applications. It's "plug and play" in the sense that it facilitates the connection to third-party analytics platforms such as Google Analytics, Amplitude, HotJar (and many more) and various other data sources (Mailchimp, HubSpot, Intercom, etc.). Then, on top of these data sets, certain built-in predictive models can be trained and used to improve product user experience and increase conversion.

Caspar Hübinger: From your perspective, what have been the most compelling use cases and/or case studies involving MorphL so far?

Ciprian Borodescu: One of the very first use cases we've build at MorphL is churn prediction for ad-based digital publishers; in other words, users simply access the information via a web or mobile application, without subscribing to a paywall/paygate (like in a traditional paid content strategy).

This is an interesting case because there are no contractual customers or subscribers, so the question becomes: *how do we define a churned user for an ad-based digital publisher?* And once we understand that, *how can we prevent churn from happening? How can we increase the lifetime of a loyal reader?*

By predicting user churn rate, our goal is to empower digital publishers to be proactive instead of being reactive. Various incentives can be prompted to the users that have a high probability to churn, they can be pooled to better understand why they're leaving or they can be re-engaged via push notifications.

Our initial results are encouraging, with 87% prediction accuracy. This gives us a chance to further tune our algorithms and aim for even better results.

Caspar Hübinger: What do you believe are the most significant challenges (if any) larger publishers or enterprise websites could have in adopting MorphL?

Ciprian Borodescu: I believe that what larger publishers or enterprise business in general need to realize is that machine learning is not the holy grail to their problems and it comes with a deep understanding of their data and the use-cases that it can be best applied to.

AI-enhancing their product might not even be possible (or required) for some of them, today. AI-enhancing their product doesn't make the marketing department optional. In fact, it's the opposite. But AI-enhancing digital products is the future, in fact... as we've seen it, it's already in the present. As product owners, managers or developers, the smart thing about it is to understand it and embrace it... not fear it or fight it.

———

Real, or spiel? – Challenges around marketing

While there are examples of Digital Experience Platforms being marketed almost like Software as a Service, case studies clearly show the DXP for enterprise is anything but "plug and play".

There is little doubt that over time a certain amount of use cases can and will be commoditised based on AI libraries, with open source spearheading adoption. When it comes to solving brand-specific challenges for enterprise, however, "plug and play" personalisation remains an unlikely future.

A DXP cannot be used, it demands to be owned. If the purpose of Digital Experience Platforms is to truly personalise the customer experience, there are no shortcuts: commitment and resources to research,

"I think regardless of what segment you're in, purpose is becoming the number one driver of brand value in today's environment. People today differentiate brands based on those that stand for something and are doing good in the world, versus those that are not."

— Alicia Tillman,
Chief Marketing Officer at SAP

reflect, reconsider, redesign, and iterate are imperative to set teams up for long-term success.

If businesses ask their customers to trust them more, earning that trust inevitably becomes a matter of character and brand personality.

Through the monocrystalline core structures of digital, a human is trying to make out another human. Mastering personalisation on a Digital Experience Platform is all about letting the human shine through.

Brands of the future: Surviving the digital currents

Websites started out as conglomerates of documents in hypertext, and the CMS was introduced as a reflection of the static, solid landscape of content. A page was a page, and it appeared where it appeared.

Today, the molecular structures of online interactions, from web pages to apps to email, still form around nuclei of semantic markup, but their environment has become fluid. In the stream of daily digital interactions, how do you make a difference? How can a brand stand out for a single person, and remain relevant, and worthy of a customers money and time?

The answer undoubtedly lies in a shift of focus, driven by the will to risk personal encounters with the person who we so conveniently tend to degrade to the role of a "user".

With the rise of AI-powered personalisation and the evolution of the CMS into a Digital Experience Platform, new opportunities have opened up for enterprises to build mutually valuable, individual, possibly life-long relationships with the person they most care about: their customer.

Unimpressed by the way it may currently be carried to the market, the Digital Experience Platform will continue to evolve and eventually dominate content management; with its single purpose and measure being to reliably and responsibly present meaning to a human individual on their digital journey.

Human Made

WordPress is an open source content management system used to power millions of sites, blogs, and applications. It's extensibility, speed of innovation, and mature development community are just some of the things that make it the most popular CMS in the world, **powering over 33% of the most popular domains on the web.**[6]

WordPress

The WordPress software is a highly-flexible and customisable open codebase, allowing you to build sites with modern technologies such as React or Node. It has evolved dramatically from a simple blogging platform, and has continued to expand its presence in the enterprise space, competing with technologies such as Drupal

and Sitecore. With the merge of the REST API in core, WordPress experienced an explosion in the number and complexity of integrations possible, significantly expanding its capacity as a robust, scalable, and extraordinarily flexible platform.

Not only does it remain the most popular CMS in the world, it's flexibility means it's used by **over 14% of the most visited sites in the world**[7] and has been instrumental in the development of online platforms for huge brands such as News UK, TechCrunch, and USA Today. WordPress has broad appeal and has continuously demonstrated its capacity to modernise and evolve.

Human Made is an award-winning, global WordPress agency and leading providers of digital experience platforms for enterprise.

[Altis](#) is the **next-generation digital experience platform**: backed by 10+ years of globally recognised engineering excellence building solutions for enterprises and leading brands. With deep roots in open source, Altis is a proven end-to-end enterprise-augmented WordPress platform.

7 https://www. whoishostingthis. com/compare/ wordpress/stats/

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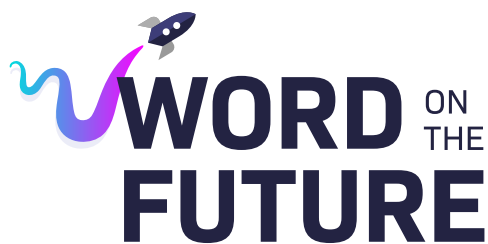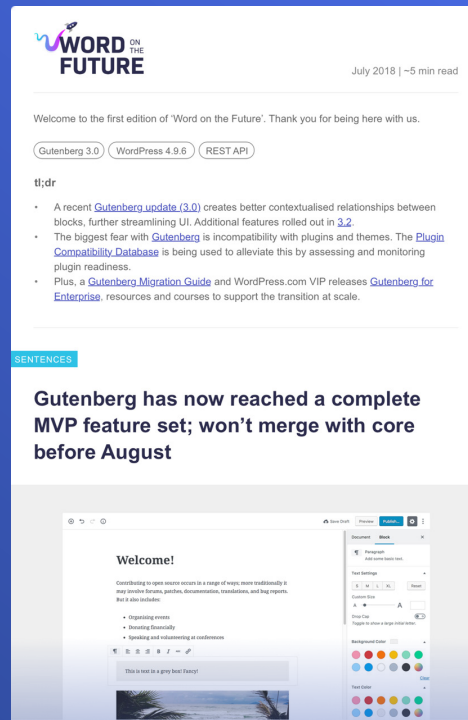
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