

A person wearing a blue long-sleeved shirt is looking at a tablet. The tablet screen displays a data visualization with several vertical bars of different colors (red, green, blue) and some text. The background is a blurred office setting with a computer monitor.

richrelevance.

# Hyper-Personalization:

## The Pinnacle of Personalization for Marketers

**A WHITEPAPER FROM RICHERELEVANCE**

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# Executive Summary

Every business today, regardless of industry, knows its goods and services are becoming rapidly commoditized. Competing and winning require differentiation through memorable “experiences” as the next evolution in the Experience Economy. [If you’re new to the topic, or want a refresher, we recommend taking a look at our recent co-authored whitepaper entitled, [“It’s the \(Experience\) Economy, Stupid,” with Joseph Pine, Author, Speaker and Management Advisor.](#)

In that publication, we concluded by constructing a framework to deliver on the promise of experience personalization: What is it, what would it potentially look like, the constituent parts of its platform, and how it would all work and fit together. The intent of this paper is to take the next logical step and actually turn the model into a proof of concept and demonstrate its practical application in use today, through real-world examples and use cases.

Before we do that, though, we’re going to first need to explore the rationale for that new solution and how the unrelenting advance of technology has created a gap that the current commerce and marketing clouds can’t fill.

We’ll look at the explosion of digital channels and how it’s made it extremely difficult if not budgetarily prohibitive for marketers to reach all of their audiences.

We’ll examine the real problems business leaders face when attempting to use marketing and commerce stacks -- built for one-way and transactional interactions -- to turn every cold digital exchange into a warm personal and more importantly, a memorable one.

And finally, we’ll demonstrate the need for a bridge – an Personalization Cloud with Hyper-Personalization, sitting in between marketing and commerce clouds. One that not only can consume and enrich marketing segments, learn from their application in context, and then export them back for even more targeted campaigns but also add value to commerce, by exposing real-time product and behavioral data, to increase average order value, per session revenue, and loyalty and overall customer lifetime value.

The Experience Economy is here and is only going to become more entrenched as technology advances. We’re soon heading to a world where almost every human interaction will have a digital component, and you can be sure that there will be a customer expecting their preferred business to personalize for it. The only question left is, will you or your competition be the one to do it.

# Modern Digital Marketers Have A Dilemma

The explosion of digital channels and consumer behavioral changes have put marketers in a difficult position. Customers now have so many ways to interact with your brand, it's almost impossible to reach them all and carry on a consistent, seamless conversation, given the limitations of current marketing technology – and budgets. Sensing an opportunity here, there are now many contenders to try and solve the personalization puzzle, from marketing clouds to in-house solutions to point solution providers.

Let's examine the most common issues that digital marketers face today.

## CUSTOMER INTERACTION CONTROL IS AN ILLUSION

Let's face it. Marketers are control freaks, who need to pull the strings on every customer interaction. Up to now, they've been enabled by martech that allowed them to carefully plan the customer journey and define the exact path the customer ought to take, from channel to channel.

The problem? Customers no longer want to be constrained by the marketers' prescribed path nor are there marketing tools to carry the plans all the way down to execution.

In the Experience Economy, customers are free to choose many paths - bounce from channel to channel and device to device – which throws the marketers plans straight out the window. The endpoint may be the same, but with the proliferation of channels and ease with which one can move between them, and choose the context, there's no way for the marketer to know how or when the customer will actually arrive there.

## MORE IS NOT BETTER

To compensate, marketers have resorted to turning up the volume on the channels (More offers! More content! Increase email send frequency!) they can control – using segmentation to push out more in



the hope of reaching each customer with the right message at the right time. But broad-based, probabilistic segments have their limitations. You can create all the propensity scores you want, but in the end, you're just gambling that what is right for a general persona is also correct for a specific individual, at a particular point in time and context.

Bottom line: current marketing tools are channel- and segment-oriented, and do not offer an contextual approach towards the execution of experience design.

### **REAL TIME IS REAL IMPORTANT**

Digital marketing has come a long way in a short time and now includes tools and analytics that allow you to fine-tune your campaigns down to the second. While having this capability is no doubt important and useful, it doesn't change the fact that the messages being delivered are still just one-directional and completely blind and deaf to the individual and context at the other end.

Real-time contextual data opens a line of communication and window into the customers' behavior and intent that can't be approached with the inherent latency of the typical martech solution. It's that immediacy that provides you the exact context of every individual interaction and allows you to deliver the exact best offer at the time of open, instead of the same mass blast to everyone in the segment, and hope something sticks.

### **DATA SCIENCE REMAINS A BACK-OFFICE SILO**

Just because you can build an in-house data science capability doesn't necessarily mean you can deploy it effectively.

Personalization isn't like baseball or the Hollywood version of it. In the movie *Field of Dreams*, all the lead character, Ray Kinsella, had to do was build the field and the players appeared magically to do the rest. With personalization -- as any experienced practitioner will tell you -- the true alchemy can only happen at the point of the interaction -- which requires the real and complex work of connecting your data science, in real time, to the multitude of data systems and sources that encompass your business.

Disconnected from real-time data and events, the systems and scoring you use are already one or two times removed from the

context your outbound campaigns are designed to address. Unless you make the cost and time-intensive investments to stand up the parallel data science infrastructure required to connect real-time data and events to your data science, your decisioning will be devoid of the unique customer and contextual knowledge needed to shape and direct behavior in any meaningful way.

Bottom line: Your custom data science models need to be deployed and leveraged in real-time personalization to truly impact experience design and make informed decisions for profitability.

### **MARKETING CLOUDS CAN'T BE "ALL IN ONE"**

Look, we're not here to bash the marketing cloud, or say that an experience personalization platform should replace it. Because, it can't. Your marketing cloud is a powerful tool that performs a very important function. It plays a central role in planning how the world ought to interact with your brand, content and products. But, if your marketing cloud is telling you it can do everything, it is either lying to you or itself -- or both.

This is visibly obvious when marketers try to design experiences.

Most advanced marketing clouds come out of the box with a set of a few basic rules at a segment level to personalize your content and outbound campaigns. They simply don't have the native ability to execute on experience design, as they are disconnected from commerce clouds, which need a specialized set of skills for revenue conversion at an individual level. Since marketing clouds don't have the controls all the way to the programmatic execution of experiences, you can't apply the same rules across channels and touchpoints. And if you can't execute at an individual level in real time, it means you're not providing the customer with an interactive, personal experience.

It results in an "Experience" gap.

### **COMMERCE CLOUDS TREAT PERSONALIZATION AS A "NICE-TO-HAVE"**

But what about commerce platforms, you ask? These systems were designed to take a single order across channels, to solve the "omni-channel" problem in a high-volume manner, to solve downstream supply-chain and fulfillment problems. Personalization in commerce

clouds is usually presented as a small feature in a large set and relies heavily on simple rules that are inventory facing, ignoring customer behavior and context.

## MANY PERSONALIZATION PRETENDERS, FEW CONTENDERS

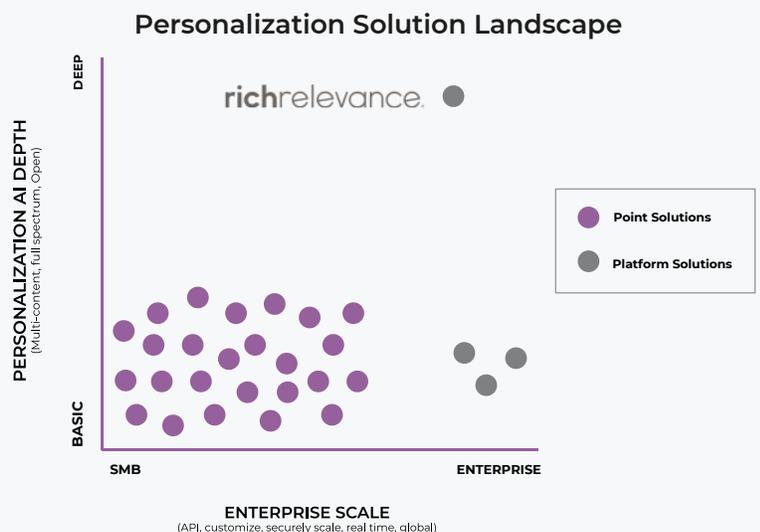
Personalization is understandably hot, and there are probably at least 100 or so recommendation vendors -- with 40 plus emerging just in the last two years -- now vying for your business. The vast majority of these have been built on top of Amazon or other AI providers and, frankly, have little understanding of the science or the specific requirements needed to make personalization work at anything but the most rudimentary level. To make matters worse, these vendors, in many cases, unwittingly expose their customers to significant risk through the use of technology in which they have little control or knowledge.

Even when these neophytes aren't doing any harm, they're rarely doing any good. At its core, experience personalization is about the relevancy, driven by the accumulation of learning. For the models to achieve any significance, they need data -- lots of data. The most accurate models are the ones that have been trained with the benefit of millions of customer interactions. To produce models that can scale and don't peak out after a short run requires the span and volume of behavioral data only possible through a global pool of enterprise customers.

Without the petabytes of customer data to properly train the models and requisite structure to support them, the results are about as valuable as the small fees the vendors charge to produce them. It's not much, in case you had any question.

### Many Personalization Pretenders, Few Contenders

Personalization is understandably hot, and there are probably at least 100 or so recommendation vendors -- with 40 plus emerging just in the last two years -- now vying for your business



# The Experience Gap and the Failure of Digital Marketing

In almost every respect, Amazon is making it harder and more expensive for business to compete. Nowhere is that truer than with the cost of customer acquisition (CAC). With Amazon and everyone else bidding up the price, keywords that were just a dollar a short time ago will now set you back \$8, or more. To get the same level of traffic and opportunities today will cost you two to three times what you spent yesterday. And the increased activity and spend has only upped the noise, making it more and more difficult to get your target to actually hear your message.

As a result, businesses are betting extensively on the marketing cloud, going all in, in the hope their martech stack will provide the personalization needed to change the odds. But, like most gamblers, marketers are walking away from the table empty-handed, with very little to show for their investment.

## DEATH BY A THOUSAND CUTS

When it comes to personalization, it's clear marketing clouds are failing the marketers that use them. But, the reasons why are not as apparent. On paper, digital marketers should have everything needed from personalization providers:

- Segmented offers and content? Check.
- “Just for you” recommendations? Check.
- Targeted email and mobile messages? Check.

But checking the boxes on an RFP is not the same as delivering in the real world, and where the marketing cloud falls down is in the thousands of details that separate marketing from personalization.

To hold the kind of bi-directional conversation that is the hallmark of personalization requires a level of two-way interaction that marketing stacks currently just can't provide. Only in real time can we understand the exact context of the customer and their journey right at the time of the interaction.

It's that real-time context that allows us to know, for example, that a purchase believed to be abandoned from a morning web session was actually picked up and completed via a mobile device later that afternoon.

When the consumer receives an abandoned cart email offering a 20% discount on the exact product that they just bought within the last 24 hours, it can be a frustrating experience for them – to say the least. Then, when the consumer contacts the customer service department in order to fix this problem, it often turns out that the offer was “online-only” and the customer service agents have no visibility into this offer. This frustrates the consumer even more. In order to keep the customer, the agent may end up offering further incentives – all of which reduce the bottom line and drive the consumer into the arms of an Amazon who can provide a far more frictionless experience.

Your personalization platform could be just as smart, or even smarter. Imagine being able to follow up each purchase instead with a real-time confirmation that includes complementary offers with the next best product or incentivize them towards enrolling in loyalty programs?

This “Death by a Thousand Cuts” includes everything from the inability to maintain consistency from channel to channel (due to brittle rules that are channel specific) and irrelevant recommendations that ignore the full context of the customer and interactions across search, content and offers to the lack of transparency of why and how decisions get made all the way to insight into the results.

### **BUT, BUT... WE TEST EVERYTHING!**

To be clear, experimentation is good and having a data-driven approach is the right way. But it's flawed thinking to assume that a marketing cloud can manually test every combination of outbound and inbound interactions (via email, mobile, websites, chatbots, ads and many more emerging screens of interaction) AND match that with business objectives to maximize conversions, which often requires a deep understanding of the product catalog, in-session customer behavior and more.

A new approach is clearly needed here.

# Hyper-Personalization: The Missing Link in Personalization

What it really represents is an “Experience Gap” between what the customer expects and the experience you’re actually giving them. To fill this gap requires a new way of thinking about the problem, the Personalization Cloud, and a whole new technology feature – Hyper-Personalization -- to solve it.

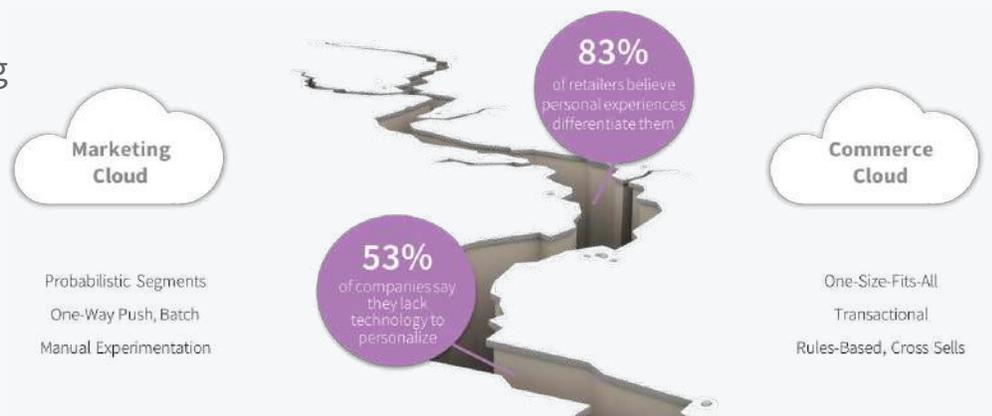
## INTRODUCING HYPER-PERSONALIZATION BY RICHRELEVANCE

RichRelevance Hyper-Personalization has three unique characteristics that make it the perfect bridge to execute marketing plans:

1. Individual, not just segments
2. Real-time context
3. AI-driven decisioning

Let’s examine each of these one by one.

### The Experience Gap and Failure of Digital Marketing



# 1. Hyper-Personalization: Individual, Not Just Segments

Unlike traditional marketing, true personalization needs to happen at an individual level, possible now due to AI-based technologies.

At the core, a user behavioral profile is created and updated in real-time in response to digital signals from every touchpoint, giving a 360° view of the customer. The User Profile Service (UPS) brings together a wealth of behavioral, historical and demographic data from a variety of inline and 3rd-party sources and makes it available to the decision engine at run-time. The UPS is continually consuming data from every available source, rebuilding the profile in real time, based on behaviors like clicks and browses, views, purchases and searches, as well as external attributes gleaned from the CMS, social interactions, marketing segments, and other 3rd-party integrations.

With the UPS, RichRelevance Hyper-Personalization ensures that the real-time context of each shopper interaction is considered with every decision, allowing you to deploy personalized strategies at every point of the customer journey.

## 2. Hyper-Personalization: Real-time Context

The ability to detect and recognize context and respond appropriately with real-time decisions, driving better relevance.

Commerce happens in real time, and shoppers experience your brand in their context. For example, if a shopper is a mobile user, their context is limited by the device form factor. This scenario is well understood by most marketing tools, with emails getting optimized appropriately. But what if the shopper is using a mobile within a store – what decisions should be optimized for that?

Hyper-Personalization should be able to help with decisions of context especially when consumer behavior is changing rapidly and is expected to become the norm. The ability to sense and detect a change in context and being able to respond appropriately with real-time decisions is a critical requirement.

There needs to be a set of business controls that can clearly give marketers the ability to craft experiences that anticipate omnichannel situations and make it seamless for the shopper.

## 3. Hyper-Personalization: AI-driven Decisioning

A full-spectrum ML/DL learning platform that is explicitly designed to eliminate rules, discover patterns and centralize the experience decisioning across overlapping contexts, algorithmically picking the winning experience on a per-session basis in real time for each individual.

Most solutions in the market today emphasize a “rules-based” approach. But as we know, rules are static and tend to get into a spaghetti form very quickly, becoming brittle over time, especially if they are copied across from other channels to some of the emerging ones. For example, rules created for mobile don’t apply very well to a chatbot.

All of that starts to chip away at the experience, resulting in customer dissatisfaction. RichRelevance Hyper-Personalization is built on a deep-learning platform called Xen AI that is explicitly designed to eliminate rules and centralize the experience decisioning across all contexts.

Critically, it ensures that you can experiment with several data science strategies and automatically pick the winner on a per session basis in real time for an individual.

### **BUILT ON A SOLID AI FOUNDATION**

Xen AI is specifically designed to optimize individualize experiences by being:

- Open & Transparent
- Extensible - Leverage your data science
- Goal Seeking

### **OPEN & TRANSPARENT**

Leveraging AI to make decisions is only one half of the puzzle; visibility into the “what” and “why” behind each strategy and decision is the other. A true Personalization Cloud should allow you to dig even

deeper, letting you inspect every placement at the granular level and see the exact strategies selected by the AI decisioning engine, as well as their performance across each KPI—views, clicks, attributable sales. From the dashboard, marketers and merchandisers should be able to monitor and get immediate insight into how their top brands, products, and categories are performing across the site.

### **DATA SCIENCE EXTENSIBILITY**

Most companies have started to make deep investments in their data science initiatives. This is to tap into your own knowledge and data about your customers and create new and unique predictive models to drive better brand engagement, anticipate co-purchase, raise conversion rates etc.

A Personalization Cloud should allow you to build new or bring in your own custom data science models and run them alongside OOTB strategies to achieve optimal results and monetize your data science investments.

### **GOAL-SEEKING OPTIMIZATION**

For many years now, marketers have been taught to experiment before rolling out any change. While this is a good discipline, there are simply too many variables to test today to do so manually. This is where Xen AI can help, with goal-seeking optimization as part of Hyper-Personalization.

Simply put, this allows you to automatically select the best strategy for each specific combination of customer interaction, context and goal. For example, you should be able to specify “choose any strategy in this set as long as the baseline conversion rate (or any other metric) is over 3.5%” and the engine should be able to continuously test and figure out which one to use.

This ability to algorithmically test every experience, commonly referred to as algorithmic testing, adds a massive lever to traditional A/B and MVT testing. That when combined with goal-seeking optimizations is where the next generation of Personalization Clouds are helping to lead and define the future of memorable experiences.

# Adding Value to Marketing Clouds...

As we saw earlier, marketing clouds, such as Salesforce Marketing Cloud, Adobe Experience Cloud etc., are typically used for planning functions – from defining segments and buyer personas to journey maps and campaigns -- and many combine outbound channel tools such as email, mobile, text/SMS for mass outreach. For online as a channel, most of the emphasis is on traditional A/B testing of content, with a statistically significant winner chosen by split testing for a given segment and persona. They focus on the top-of-the-funnel acquisitions and are used in conjunction with ad tech, with a lot of spend on targeting and re-targeting.

While buyer personas are a useful abstraction, personas don't make a purchase – individuals do. Individuals go through their unique journey and experience the brand in their own way.

RichRelevance integrates with marketing clouds to provide a deeper contextual understanding of the individual customer affinities, preferences and behaviors.

## EXAMPLE USE CASES FOR ENHANCING MARKETING CLOUD INVESTMENTS

### a. Improving Ad Efficiency with Landing Page Optimization

A PPC marketing campaign can be made much more efficient if the landing page can be personalized to the shopper with content that aligns to their context, reducing bounce rates and improving engagement.

### b. Improve Email Campaigns

Infuse personalized content with enhanced context to email campaigns, improving relevancy, open and click-thru rates.

### c. Bring Revenue-optimized Content and Commerce Together

With features such as Smart Cart, you can promote content offers to encourage reaching a threshold (“\$10 more to get free shipping!”), target loyalty customers and more.

## INTEGRATION WITH MARKETING CLOUD



### Consume and Enhance Segments

RichRelevance is easily able to consume “definitional” segments and audiences defined in marketing clouds via segment imports. They are then able to enhance these segments with behavioral data to create microsegments; these microsegments can be then further leveraged for improved real-time decisioning with offers, content and more.



### Reference Externally Defined Content

RichRelevance is also able to ingest externally defined content as references, without a need to replicate. This ensures that the current content workflow and lifecycle not only remain in place but now can also work in conjunction with optimization techniques that are AI-driven. Optimization techniques can be both based on revenue-maximization and/or brand engagement.



### Test and Optimize Content at an Individual Level, Not Segments

Instead of the traditional split test, RichRelevance is able to test multiple options at an individual session level via algorithms that compete for the best results. This unique approach ensures that the cost of experimentation is lowered, and relevancy is increased at an individual level.



### Export Enhanced Segments to Marketing Clouds

Marketing clouds, especially the ones with outbound email tools, are far more effective when they are aware of the omnichannel nature of shopper behavior. RichRelevance can help trigger the right emails, whether they are event-driven such as cart abandonment, transactional (such as a post-purchase survey), or promotional (new arrivals).

# ...And to Commerce Clouds

Commerce clouds such as SAP Hybris, Adobe Magento, and Salesforce Demandware are focused on transactions and orders at scale. They are optimized to solve bottom-of-funnel issues and to ensure that the customer experience post purchase is optimal.

## EXAMPLE USE CASES FOR ENHANCING COMMERCE CLOUD INVESTMENTS

### a. Drive Revenue Lift with Your Existing Website, Mobile or Call Center Application

Traditional measures of attributable revenues only tell a partial picture, but a true Personalization Cloud like RichRelevance can help lift revenues per visitor, ensuring that AI investments are impacting at an individual level with metrics such as RPS and RPV.

### b. Improve Basket Size, Items Per Order with an Omnichannel Context

Ingest omnichannel orders and purchase history to ensure a full context and drive relevant recommendations; improve AOV with a seamless omnichannel experience.

### c. Monetize Your Data Science Investments

Deploy and test your data science models and hypotheses alongside our OOTB strategies; extend your data science and predictive models to new touchpoints.

## INTEGRATION WITH COMMERCE CLOUD



### Integrate with Product Catalog

Customer centricity demands a level of individualization that is finally achievable and is different from the traditional approaches of data warehousing, which focused on more offline transactions rather than real-time interactions.



### Product Availability

A critical feature is to ensure that product availability is well known, to avoid recommending out-of-stock products that lead to customer dissatisfaction.



### Test And Optimize for Each Individual

Instead of the traditional split test, RichRelevance is able to test multiple product offers at an individual session level via algorithms that compete for the best results. This unique approach ensures that the cost of experimentation is lowered, and relevancy is increased at an individual level.



### Analytics with Seamless Integration with Order Funnel

Personalization Cloud integration at all points of the funnel ensures full traceability of revenue leaks, the greatest impact of personalization offers, and more.

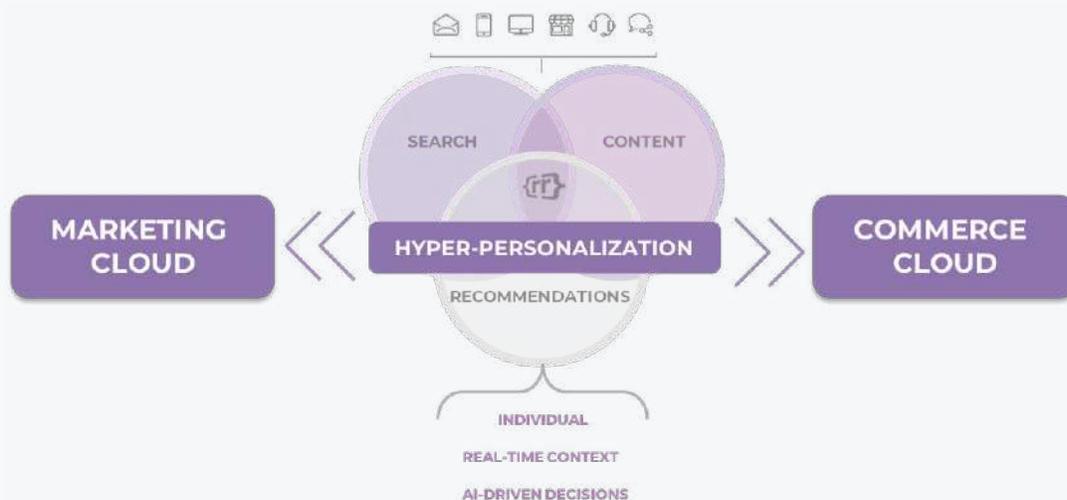
# Why Choose RichRelevance

Competing on memorable experiences is the only remaining differentiator today, against a juggernaut called Amazon. Frictionless is only one axis in this battle... which means understanding the new marketing stack – marketing clouds, commerce clouds and now, Personalization Clouds with Hyper-Personalization.

RichRelevance is the industry’s first Hyper-Personalization provider, and here are three reasons how we can help your business:

## 1. A complete Solution Across the Commerce Lifecycle

Only RichRelevance provides a complete set of personalization solutions - from search, browse and navigation to content and product recommendations - following the entire lifecycle of a customer. This is critical because today, context is king. By centralizing all of personalization in a single platform, RichRelevance customers can leverage the unified context to create advanced treatments based on user behavior in real time; this makes every interaction more relevant and timelier, resulting in increases in RPV/RPS, basket size and not to mention, long-term customer satisfaction and value.



## **2. Eliminate Rules, Increase Automation and Reduce Costs with AI-driven Personalization**

Most solutions in the market today emphasize a “rules-based” approach. But as we know, rules are brittle. And static. And they get into a spaghetti form very quickly, especially if they are copied across from other channels to some of the emerging ones. All of that starts to chip away at the experience, resulting in customer dissatisfaction. RichRelevance has built Xen AI, our machine- and deep-learning platform that is explicitly designed to eliminate rules and centralize the experience decisioning across all contexts. RichRelevance also provides algorithmic testing with Experience Optimizer (XO) that ensures that you can experiment with different strategies and automatically pick the winner on a per session basis in real time.

## **3. Trusted by the Largest Retailers and Brands**

For over 10 years, 200+ of the world’s most innovative and leading retailers and brands have trusted RichRelevance to personalize the digital transactions for billions of individual customers. Our globally distributed wholly-owned data network and infrastructure allow us to scale to meet any demand, without the reliance on 3rd-party providers, such as AWS. That plus a world-class customer success and professional services organization give us the ability to meet the demands of any enterprise-level organization, regardless of size, complexity, and mission.