INSIGHTS FROM
15 INDUSTRY EXPERTS

retail
TouchPoints®

Table of Contents

RETAIL TOUCHPOINTS
2018 E-COMMERCE TECHNOLOGY PREVIEW

Retail TouchPoints is proud to introduce the third annual **E-Commerce Technology Preview**, featuring insights from 15 e-Commerce industry experts.

This guide offers an exclusive and unique look at how retailers are gearing up for e-Commerce and omnichannel success in 2018 and beyond.

This comprehensive collection of e-Commerce thought leadership will help retailers determine the most effective go-forward business strategies. Key topics include:

- **Artificial Intelligence (AI);**
- **Personalization;**
- **To Beat Or Join Amazon;**
- **Data Science;** and
- **Mobile-First Strategies.**

We hope you find a significant takeaway from each contributed article that you can share with your team to help make 2018 a most successful year!

Debbie Hauss
Editor-In-Chief
Retail TouchPoints

OMER ARTUN
CEO
AGILONE

THE TRIFECTA: RETAILERS, CONSUMERS AND MACHINES

We have entered a time when technology advances have brought us to a place where computers are able to augment human understanding and behavior. While I don't think we have gotten to the point when artificial intelligence will replace human work entirely, there is a lot for retailers, in particular, to gain embracing the power of machine learning.

A MARKETER'S DREAM COME TRUE

By harnessing the power of machine learning, human neural pathways are replicated by machines. For marketing, the result can be the ability to personalize the consumer experience for a lot more people than could fit into a corner market.

The experience feels authentic to the consumer and cultivates a real brand-consumer relationship, while creating lifetime value. So, what are the human intelligence heuristics that we can mimic with machine learning to create these kinds of results? Here are some of the important ones:

- **Anchoring** — Comparison of past and future
- **Availability** — Calculation of probabilities
- **Representativeness** — Grouping things together for patterns
- **Gains and losses** — Providing opportunities to win and avoid losing (Note: People don't want to lose, they want to win. Loss aversion creates inertia to stick to your current status. People are twice as miserable for a loss than for a gain of the same item.)
- **Status quo** — Providing a desirable default state (Note: People tend to stick to what they do. Trial subscriptions exploit this. This heuristic also highlights importance of defaults in a system.)
- **Framing** — How the information is presented against an alternative

Even last year, these sophisticated advances had marketers scrambling to harness all the data that was being generated by consumers – opinions expressed on social media, having the insight into the products that consumers most recently purchased and what they were most likely to buy next.

For the first time ever, we have the computing power to scale combining the structured data from CRM databases to unstructured data from social networks and free flowing real time data from devices and the Internet of Things (IoT).

CLUSTERS & DECISIONS

Machine learning works best for marketing situations where the marketing mechanics, the automated response to customers, require human judgment and decisioning. A perfect example is clustering, where one of the key heuristics is "representativeness."

Representativeness is when humans naturally group things together to reduce complexity. When machines do this with unsupervised learning algorithms, marketers gain meaningful customer segments without the work it would take to develop those segments manually. Clustering also helps marketers recognize future customers earlier, predict whether someone likes a product or message, and so on.

Machine learning manages these variances exactly as a human would: calculating and decisioning without explicit programming. Machine learning can accommodate for a wide range of human idiosyncrasies, such as:

- **Complexity** — when tasks are non-linear, high dimensional, and go beyond the surface
- **Low SNR** (needle in the haystack) — when events are few and far between, and filled with noise in the meantime
- **Incomplete information** — when only some of the necessary information is present
- **Probabilistic events** — when events following other events are likely, or not
- **Memory** — when problems, conditions, and data change, the system learns and forgets

THE TRIFECTA: MARKETERS, HUMANS, AND MACHINES

So, how does machine learning help relationships between brands and customers? It takes the 1:1 dynamic and propels that dynamic to a massive scale. Building high quality customer relationships with high lifetime value can't be done simply from machine-human (the old "spray and pray" dynamic), and it can't be human-human (this doesn't scale). The answer instead is in the "human+machine"-human dynamic. For marketers, humans AND machines are better than humans OR machines. We've come a long way in harnessing machine learning for effective marketing. It will be exciting to see where machine learning continues to take us.

BRYAN CHAGOLY
VICE PRESIDENT OF TECHNOLOGY
BAZAARVOICE

AUTOMATION, AI AND MACHINE LEARNING WILL IMPROVE 1-TO-1 PERSONALIZATION IN E-COMMERCE

To stand out in today's noisy e-Commerce environment, retailers are working toward making the online shopping experience as convenient, relevant and enjoyable as possible for consumers. From a technology standpoint, one area where we're seeing retailers focus and innovate is improving the customer experience through personalization — recognizing individual shoppers, recommending relevant products for them, and directly marketing to them based on their past shopping activity. With the combination of new technology and customer data, retailers are getting closer to providing a "1-to-1" shopping experience for consumers — an experience where the retailer can communicate, recommend products, and provide relevant offers as if the shopper were interacting with a live customer service representative or sales associate at a physical store.

AI, MACHINE LEARNING AND AUTOMATION IN PERSONALIZATION

Machine learning and AI techniques have made it possible to build robust 1-to-1 people-based personalization, but acting on it remains difficult. Signal enrichment, automation and activation become key to building timely and inspiring interactions with consumers. For example, with machine learning, we can correlate signals from various sources, identify patterns, and infer strength of purchase intent. When observing the shopper journeys of hundreds of millions of shoppers across the retail ecosystem, patterns of intent emerge, and intelligent systems can understand which behaviors lead to conversion. AB testing, and even multi-variant testing, is no longer sufficient; instead, intelligent systems can optimize an individual's experience in real-time to provide the best content for that shopper wherever they are in their personal shopper journey. This type of personalization done well leads to a closed loop learning system that optimizes the entire purchase funnel toward maximal conversion rates and revenue.

USING SEARCH, BROWSING AND BUYING DATA TO IMPROVE PERSONALIZATION

Even with technology and automation, true 1-to-1 people-based personalization is incredibly hard to achieve. For retailers to be successful, they must focus on building comprehensive people-based models that include more robust signals than what can be seen from just one e-Commerce site.

Consumers tell us what they are in-market for every day, but retailers must pay attention. Based on the websites they read, retailers they shop at, reviews they leave, and places they go, consumers are signaling intent everywhere — it's up to retailers and their technology partners to synthesize this information to find these consumers and provide relevant content and enjoyable shopping experiences for them. Retailers should leverage systems that can combine, analyze, model and automate these data signals to get closer to true 1-to-1 customer interactions.

In addition to collecting a rich set of shopper data, retailers must also understand what qualifies as relevant shopper data because high-quality and fresh real-time signals of intent are essential for personalizing the shopping experience and providing timely recommendations. Marketers must evaluate the freshness of their first-party data to remain relevant and ensure that their digital efforts are identifying consumers with the greatest propensity to buy. Retailers must better define "relevance" and use data that point to a recent and immediate intent to buy, such as product pageviews, search terms or interactions with ratings and reviews within a reasonable time frame, which is usually days, not weeks.

JARED BLANK
SVP OF DATA ANALYSIS AND INSIGHTS
BLUECORE

2018: THE YEAR TO EMBRACE AMAZON'S DISTRIBUTION CHANNEL

Retailers desperately want to combat the force of Amazon, but they lack the strategy, the marketing dollars and the digital resources to do so. In 2018, smart retailers will stop battling the ecommerce and personalization giant and instead leverage the digital powerhouse as a very effective distribution channel.

Retailers have always had a complicated, ever-changing relationship with Amazon. In the past, retailers across industries held firm that Amazon would not encroach on their territory. They believed that consumers were looking for a more brand-specific experience. However, one by one, retailers in categories from apparel to jewelry to consumer-packaged goods found that consumers will in fact trade a branded experience for the convenience that Amazon offers.

Now, many retailers are mulling their strategies around free shipping, in-store service and low prices to mimic what Amazon does best: Provide highly personalized and convenient experiences for customers. But while better data and experiences are important, it's time to stop fighting the inevitable and embrace the opportunity to sell products through Amazon.

In 2018, brands cannot continue to treat Amazon like the enemy. With the number of Amazon Prime customers soaring and more consumers than ever beginning their product searches on Amazon, it's simply impractical for retailers to think they're going to succeed alone. Even the world's largest brands are using Amazon as a distribution channel, and their revenue and earnings reports are seeing a sizeable uptick. Just look at Nike, which reversed its long-standing policy against selling products directly on Amazon in June 2017. As Nike's experience illustrates, the key for retailers is learning to co-exist with Amazon. So how exactly can retailers think of Amazon as a distribution partner? It will depend in large part on their business as well as the approach they take to working with Amazon. For example, there are currently three different ways retailers can sell goods on Amazon:

- **Wholesale**: In this case, Amazon buys the goods from a retailer and then sets the price, selling the products to consumers directly.

- **Fulfilled by Amazon (FBA)**: With the FBA program, retailers still own the goods, but Amazon handles the product listing and fulfills the orders.

- **Amazon Marketplace**: Finally, if retailers list on the Amazon Marketplace, they handle everything themselves, including listing and shipping.

Each of these options allows for varying degrees of control over the process as well as varying degrees of competition with other products sold on Amazon. For instance, the wholesale option provides the least control, but might deliver better placement within Amazon in comparison to similar items. On the other hand, if a product is exclusive and no one else sells it, FBA or the Amazon Marketplace might be the better option because it costs less and offers more control.

As we head into 2018, retailers have a choice to make: Compete against a company that spends more than **$10 billion annually** on R&D or use Amazon as a distribution channel. Increasingly, retailers are choosing the latter. Who will be next?

> "In 2018, brands cannot continue to treat Amazon like the enemy."

ALLEN NANCE
CHIEF MARKETING OFFICER
EMARSYS

BRIDGING THE GAP BETWEEN DATA SCIENCE AND EXECUTION

As we approach October, the desire to "revamp" becomes common among individuals and often time, organizations. Perhaps it's because the New Year is only three months away. But as Chief Marketing Officer of a company that provides cloud marketing software for B2C organizations, I am seeing firsthand that many marketers are starting to sketch out — and even finalize — their marketing strategies for 2018.

Each year, marketers must keep their ears and eyes open to the latest trends, all with the common goal of meeting consumer demands for a more tailored, unified experience. Today, the average consumer has 4 connected devices at hand. So, brands must integrate the omnichannel approach in their marketing strategies to personalize the customer experience across different touchpoints and keep their target audiences engaged.

So how is this done? How can retail marketers bridge the gap between data science and execution, allowing brands to better map their customer's journeys?

In 2018, we'll see the accelerated adoption (amongst brands) of AI-powered marketing strategies. By integrating AI, retail marketers can easily target segments of customers to better address their individual needs. Studies show that some brands have already started to jump on the AI bandwagon, or plan to, in the near future. A recent survey conducted by Forrester on behalf of Emarsys, sheds light on how major organizations have started investing in AI, and what companies in the e-Commerce space can start doing to better harness these data crunching platforms. The figures uncovered that 78% of executives

planned to spend at least **5%** more on AI marketing technologies in the next 12 months to better personalize the customer experience across different channels. According to a 2017 study, **48%** of U.S. marketers reported that personalization on their websites or apps lifted revenues in excess of **10%**.

The list of potential uses for AI in retail marketing is almost limitless, and the technology continues to mature. Instead of giving marketers another report, AI can help brands execute a campaign that resonates with its consumers. E-Commerce retailers such as LuisaViaRoma and Cosabella have already dipped their toes in integrating AI across their marketing strategies and have seen satisfying results, including customer retention and win-back rates.

As we move into 2018, retailers will look to cutting edge, machine learning technologies to receive an abundance of actionable insight into consumer trends, improved marketing metrics and campaign success. The intersection of machine processing and human brainpower is empowering markers all over the globe to better connect with their customers. In a world where drones can deliver packages and vehicles can drive themselves, AI is here to stay. Now it's time for marketers to harness its potential and get ready to embrace success.

> "By integrating AI, retail marketers can easily target segments of customers to better address their individual needs."

JENNIFER SHERMAN
SVP PRODUCT & STRATEGY
KIBO

2018: THE YEAR OF PERSONALIZED OMNICHANNEL EXPERIENCES

In this increasingly crowded space, what everyone is fighting for is differentiation, discoverability and shopper loyalty. We all want to stake out our little piece of our target consumer's attention and, once we do, deliver the best possible experience. Now as I look at what we see successful retailers doing in their quest to deliver that great experience, I see a few trends:

1. Moving from Personalization to Individualization. Old school approaches that segment customers into categories and serve up recommendations and content accordingly will only get you so far. Consumers don't always fit cleanly into segments and these approaches are a waste of the wealth of data we've been collecting on shoppers for years. Forward thinking sellers are looking at how to individualize the experience for every shopper.

2. Site-wide personalization. Product recommendation widgets are a commodity now. Sites that will drive higher conversion rates and, in turn, higher AOV are those where the entire user experience is personalized (actually individualized). When these are powered by Machine Learning (an application of AI), these systems can do an amazing job of predicting what will interest a user based on all their past history and their current intent. Using these technologies to personalize everything from recommendations, to category sort to search allow a merchant to move from being demand sensing to demand shaping. When you shape demand, you build a better experience for the consumer and a more fruitful transaction for the seller.

3. Omnichannel. I think all too often we hear the term omnichannel and we think BOPIS. But omnichannel is so much more. It starts by recognizing that shoppers don't think about channels as silos. The store, the website, the mobile app are all part of their experience of the brand. Those experiences need to be consistent, personalized and engaging. And yes, that means I should be able to order everywhere and receive my product anywhere but more than that, it means all those experiences should be individualized and offer consistent product assortments, pricing and service.

Every great shopping experience we have as a consumer forever changes our expectations for all other shopping experiences going forward. That means every seller can raise the bar for the entire industry with every client interaction. That puts sellers on a flat-out sprint to keep up and shoppers do not care if you don't have the right technology, team size or skill set to get there.

In the journey to deliver great individualized experiences, I suggest that each merchant look at the shopping experience across all channels and identify where it is disjointed, not personalized or delivering subpar results. Use those challenge areas to drive your personalization strategy. Challenge your technology partners to explain to you why their solution is different from the others, how they use predictive learning technologies and make sure their technology allows you to treat your customers like people, not segments. Make sure the solution can be used online, in store, and in your call center. Look for solutions that can pull data from stores, loyalty programs, legacy orders etc. to ensure that you have a 360-degree view into every client. Look for solutions that think beyond product recommendations. Look for solutions that you can use to shape demand.

As for omnichannel transformations, find a partner who has experience integrating your online and store channels and who will guide you through the process, understanding both your business and industry best practices. Find a partner, not a vendor. This is going to be a hard-enough journey and you don't need to do it alone.

PETER SHELDON
VP STRATEGY
MAGENTO

PERSONALIZATION AT SCALE: HOW AI IS RESHAPING THE RETAIL CUSTOMER EXPERIENCE

Elon Musk created a stir when he claimed that artificial intelligence is a "fundamental existential risk" for human civilization. But whether we like it or not, AI has made exponential strides in the last couple of years and is poised to make significant progress in the next five. The retail industry will look entirely different as a result.

By 2020, more than **60%** of organizations will use AI for digital commerce, and AI will account for 30% of digital commerce revenue growth, according to Gartner. As customer touch points and data explode alongside customer demands for relevance and personalization, retail innovation has moved beyond human capacity. To deliver on sky-high expectations, retailers must rely on a world of data science, machine learning and AI to round out their strategies. Here are three ways AI will fundamentally reshape the retail customer experience, finally bringing true personalization at scale.

AI MAKES CUSTOMER ENGAGEMENT INTUITIVE AND HYPER-RELEVANT

Channels are getting murkier. As mobile, wearables, and hands-free devices evolve and become more advanced, channels for customer engagement will continue to explode. As a result, shopping will become less about channels and more about environmental experience.

Machine learning and AI will be critical in mining information and providing intellectual recommendations on how, when, and where retailers should engage customers. Retailers who take advantage of data-driven analysis will not only increase conversion rates and average order value, but also refine the overall customer experience so it is more intuitive and relevant.

AI RETHINKS MOBILE SHOPPING

Mobile-only apps have created a frictionless user experience that customers now expect. Data-oriented functionality will continue to enrich mobile customer experiences by detecting customer location and behaviors. For example, take Uber, which understands where passengers are standing and proactively suggests the ideal spot to wait for the driver, ultimately removing all friction associated with getting to a destination from hailing a cab to paying for the ride.

Where AI truly revolutionizes the mobile experience is from a product discovery perspective. The task of sifting through 4,000 SKUs is daunting for any consumer. But the experience is immediately more efficient and enjoyable if the retailer can automatically suggest 15 products tailored to the customer's preferences and past browsing activity, optimizing the mobile experience for quick purchase.

AI ADDS ANOTHER WEAPON TO THE MARKETER'S ARSENAL

The resource side of retail is not growing with the pace of technology. AI will never fully replace marketers because it lacks the empathy and emotional intelligence of real humans. However, under-resourced teams stand to benefit from AI by automating everyday merchandising functions, such as discount offers, loyalty incentives and A/B testing. Ultimately, the merchandiser could assume the role of moderator and leave the heavy lifting to AI.

Through social channels, AI can help identify conversations about products and preferences that brands previously never knew existed. With AI, marketers can identify how and where people are talking about their brands and cultivate those conversations for marketing purposes. Marketers will be able to curate authentic content and, over time, gain feedback on how content moves purchasing forward.

AI is not in itself the ultimate solution for retail's untapped opportunities. In fact, AI's success will hinge on its ability to fade into the background. At best, AI will be invisible. It is the next secret weapon of retail, driving powerful experiences that are truly personalized at the core.

JAMES GREEN
CEO
MAGNETIC

AI WILL SIFT THROUGH THE NOISE TO MAKE BETTER PRODUCT RECOMMENDATIONS

AI and machine learning will have a profound impact on e-Commerce as we move into 2018. From consumer segments to virtual retail agents, AI is already moving objects, providing information, reasoning, planning, and communicating on a daily basis — and reshaping how marketers reach and retain consumers.

As the vast number of connected consumers and devices expands, the amount of data increases exponentially. Because human marketers have limited availability to turn consumer data into actionable intelligence and a finite ability to process information and build strategies, AI is (and will be) needed to sift through the noise. By using machine learning algorithms, AI can learn and build upon consumer behavior, interests, and preferences to make product recommendations.

AI will also become increasingly helpful in optimizing retargeting campaigns. One example of this comes from one of our clients — a popular mattress company. Using our (Magnetic) data, our (human) analysts discovered that the #1 thing people were searching for when they visited this mattress manufacturers website was...mattresses. More interestingly, the #2 item was...diabetes. WHY? It took the team running the campaign over a week to figure it out. It turns out people with diabetes are sometimes overweight, they sometimes have trouble sleeping, and quite often need a comfortable mattress. After building

"diabetes" terms into the campaign, the results were outstanding. In short, AI wouldn't care why it was true and would have optimized to targeting these people within seconds.

As AI becomes more widely adopted across all sectors of e-Commerce, marketers will realize they can reach the highest-quality prospects at the lowest possible cost, and identify new revenue generating opportunities they haven't yet explored. Artificial intelligence will alleviate marketers from laborious and time-invasive tasks, empowering them to refocus energy on critical business drivers like client service and business development.

Bottom line: AI will help marketers achieve faster, smarter marketing — a win for both man and machine. The AI revolution is real, and companies in the e-Commerce space must embrace the transformation in order to stay ahead in the new year.

> **"AI will become increasingly helpful in optimizing retargeting campaigns."**

MARIBETH ROSS
SVP MARKETING
MONETATE

HOW AI IS PAVING THE WAY FOR MARKETERS TO CREATE 1-TO-1 CUSTOMER EXPERIENCES

Personalization and Artificial Intelligence (AI) have been the hottest buzzwords in marketing for some time, but marketers are just beginning to realize their potential. And — when implemented correctly — their potential is shaping up to look a lot like customer loyalty and increased profit.

But implementing new technologies and creating a dedicated personalization strategy can feel like a big undertaking. A recent study by Persado reflects marketers' frustration, revealing that — on a scale of 0 to 4 — respondents felt they were only around a 2.1 in effectively personalizing content. This lack of confidence has fueled marketers' increased spending on AI and machine learning technologies. According to the study, a whopping 86% of marketers plan to invest in AI and machine learning technologies in 2017.

As retailers begin leveraging AI and machine learning to make sense of data and create more personalized experiences, marketers need to consider what actually defines a great customer experience today. Customers are used to having their needs understood by retailers — what used to feel intrusive or even creepy is now familiar and expected. By leveraging personalization alongside existing testing, optimization and segmentation strategies, brands can exceed customer expectations and remain relevant in an increasingly competitive e-Commerce landscape.

While they should coexist with optimization and segmentation, true 1-to-1 experiences ensure each customer is served the most relevant experience in real time. When a 1-to-1 experience is launched, each customer gets the best possible experience and brands see improved results that map back to specific business goals. For example, one brand may want to increase the number of newsletter subscribers whereas another may be looking to increase average order value. Honing in on improving those specific experiences using AI — and often leveraging assets a brand already has — allows marketers to scale beyond capabilities of other approaches. This is the pinnacle to which many brands aspire.

The ability to interact with customers at scale and provide truly individualized experiences provides substantial — and lucrative — opportunity for brands. According to Boston Consulting Group, over the next five years in three sectors alone — retail being one of them — personalization will push a revenue shift of some **$800 billion** to the **15%** of companies that get it right. All the more reason to be one of them.

> " "86% of marketers plan to invest in AI and machine learning technologies in 2017, according to a recent Persado study."

OSCAR SACHS
CEO
SALESFLOOR

MOBILE-FIRST OR CONTEXT-FIRST?

The mobile-first approach to marketing was a great idea...at first.

At the turning point of the smartphone era, a new UX strategy needed to be developed to suit what appeared to be the only preferred platform of the customer on-the-go. Working outward from a mobile to desktop interface ensured an identical experience that carried over without sacrificing all the bells and whistles that a desktop platform would boast, and while the platform shift has been celebrated, it certainly hasn't been the best or last development in improving the shopper's journey.

As uniquely form-fitting as mobile development is for improving users' access to products that they would otherwise have via desktop, it recreates some of the same problems of desktop-only sites. Mobile first fails to ask why online shoppers are using one device or another, and what they're looking for in choosing that option. Do they need efficiency, experience and/or incentives? And how can a platform assist in each of those? Omnichannel retail platforms with mobile, desktop, and brick-and-mortar façades have the potential to adapt their interfaces. In this way, the myriad of reasons for why a customer might opt for a mobile over desktop interface or interchange between the devices over the course of their shopping journey, are addressed and accounted for in its features.

The case against mobile-first is a matter of meeting the potential that the platform truly offers. It's no longer enough for retailers to adapt their sites and retail apps to the parameters of a smartphone or tablet screen — they need to contextualize their usage as well. The use of a mobile device is in and of itself situated within the context of a user's immediate needs and trend-proven preferences, and catering to these whims goes beyond simply distinguishing between them to actively striving for an interface that suits each experience. That's why the next logical step for ease-of-access marketing is a leap from a mobile-first to a context-first approach, which considers the circumstances in which the platform is being used, then adapts it to suit that need.

If a Millennial is researching product reviews on their smartphone before making a purchase in-store, as over 80% of them reportedly do, their user experience could be improved significantly based on the context of their location.

Should the retailer's context-first-built mobile app recognize that the buyer is presently at the store, a feature could allow it to forgo all the animations and filler content that usually characterize the app and instead prioritize product reviews in its preview icons and native search engine. Other possible extensions of using context to optimize the online experience have even included suggestions to program retail applications to analyze a device's battery power and data usage to estimate what context the user is presently in and adapt itself to suit that contextual need best.

While these examples may seem idealistic, they're not far-fetched technology-wise, and they serve to illustrate just how much a web interface can be optimized by using the context of the customer's location to streamline their interactions and make their journey from the aisle to check-out counter as breezy as possible.

One of the other many strengths of the context-first approach is that it operates aside from live, time-and-space data monitoring. Context-first also offers all the benefits of the classic marketing technique of demographic targeting, only instead of using dated census-based guidelines such as age or gender, it operates off a concrete set of consumer personas uniquely identified through user interaction and shopping habits.

> " "Mobile first fails to ask why online shoppers are using one device or another, and what they're looking for in choosing that option."

ROB GARF
VP OF INDUSTRY STRATEGY AND INSIGHTS
SALESFORCE COMMERCE CLOUD

CONNECTING SHOPPERS WITH THE PRODUCTS THEY LOVE

Today's reality of modern commerce is that shoppers no longer take a linear path to purchase, but rather meander across digital, stores and mobile, all the while demanding a highly personalized and human experience.

Additionally, shoppers are no longer merely visiting a retailer's site — they're making online purchases more frequently and spending more per purchase. According to Commerce Cloud's Shopping Index, 20% of website visitors are either buying or showing clear signs of buying behavior, like searching, adding products to a cart, and starting checkouts.

Simply put, then, a retailer's number one priority is now to connect shoppers to the products they love as seamlessly as possible.

The continued surge of digital commerce — in both the virtual and physical worlds — means retailers must find a way to break down the barriers that stand between browsing and buying. To do this, retailers must focus on the three key tactics:

- **Frictionless mobile experience**: According to the latest Shopping Index, mobile traffic to retail sites has continued to grow among online shoppers, jumping **23%** year over year to **57%**. Additionally, according to a recent report by Commerce Cloud and SapientRazorfish, **59%** of consumers reported using their phones while shopping in a physical store within the last three months. As mobile increasingly becomes the consumers' shopping companion of choice, retailers must eliminate barriers on the way to the buy button. That means, among other things, leveraging one-click checkout options like Apple Pay and Android Pay.

- **Findability**: Digital heavyweights like Amazon and Google have conditioned consumers to search, making retailers' site search an absolutely crucial utility for shoppers. In fact, site search accounts for **10%** of site visits and **23%** of all revenue. As the number of shopper searches and product catalogs continue to increase, so does retailers' burden to provide the best search results to shoppers. Retailers can alleviate some of this burden by embedding artificial intelligence into search to provide each shopper with results that are most relevant to them, and personalized based on their shopping history and preferences.

- **Storytelling**: Shoppers continue to swoon for brands like American Giant, ModCloth, Everlane and Life Is Good. Why? Because these brands stand for something, allowing the shopper to connect on a more personal level. Retailers should take a page from these brands' playbooks, and weave the human experience into the shopper's journey. Give shoppers more of a reason to love your products by telling your brand's story throughout their shopping experience.

By now it's clear that a 'one-size fits all' approach to retailing just doesn't cut it in our mobile, intelligent and connected era. Simply driving hordes of consumers to your site alone will no longer yield success. To break through the noise, retailers must prioritize connecting customers with products, in a way that makes in-store, mobile, and web experiences more personalized. Why? Because at the end of the day, despite the digital domination of our daily lives, commerce and consumerism boils down to an individualized, personalized, human activity.

> "The continued surge of digital commerce — in both the virtual and physical worlds — means retailers must find a way to break down the barriers that stand between browsing and buying."

JULIANA PEREIRA
HEAD OF MARKETING
SMARTLING

THE INTEGRATION OF THE CLOUD AND MACHINE LEARNING

In 2018 there will be more e-Commerce brands adopting cloud-based technologies merging big data with machine learning. The combination of these technologies will help online businesses derive greater business value from their customer and content data.

One of the most compelling aspects of the e-Commerce space is the drive for constant disruption and innovation in order to excite new customers and delight current ones. And no matter the channel in which a brand originates, e-Commerce today is a must for most brands, particularly ones with global aspirations.

With digital powering its core, e-Commerce is a channel that has lent itself most readily to the gathering and storage of massive amounts of information on site visitors and online customers. We've come to call this 'big data', a concept that has sparked a revolution around data and analytics in recent years. A challenge of big data is extrapolating meaning and formulating insights from data points that quickly become retroactive experiments resulting in reactive business decisions and activities, even when the data is captured in real-time. Smart brands are now layering a new technology on top of big data to uncover forward-looking insights and predictive analytics: machine learning.

We should consider machine learning a natural extension of the big data phenomenon of recent years. If big data can bring all the inputs together, then machine learning can teach the data to learn from itself in order to solve data problems at scale.

This fusion of big data and machine learning has incredible implications for customer-centric e-Commerce businesses. Most e-Commerce marketers and professionals frequently find it difficult to consolidate data from thousands of buyers and hundreds of customer segments across a highly fragmented martech stack. Because many e-Commerce brands focus on tying together data points across the buyer journey

and all customer touch points, there is a need for powerful technologies that can centralize that data across customer management systems. But aggregating information isn't enough. In order to achieve a truly predictive, data-first approach to decision-making, e-Commerce organizations need to be able to pull in the data continuously, and let it iteratively narrate the broader customer story.

And data exists for more than just customers. Centralization and deep analysis is also necessary for content data. Content creation and storage is also a highly fragmented component of any e-Commerce operation, with information distributed across product catalogues, content management systems, product reviews, support systems, and ad servers, to name a few. Collecting and analyzing content data and combining it with customer data can lead to better predictions of how to create a best-in-class buyer experience.

Global e-Commerce brands have the added complexity of having customers in multiple global markets and content localized in several languages. The only way to manage all these data sources is to store that information in a cloud-based system that can enable the level of access, collaboration, and continuous analysis required by these customer-centric enterprises.

Big data paired with machine learning encourages the discovery of new insights through iteration, creating an agile process of data analysis that continually learns. For e-Commerce, the adoption of cloud-based AI technologies for data can help digital businesses move fast, learn fast, and win fast.

> "This fusion of big data and machine learning has incredible implications for customer-centric e-Commerce businesses."

JIM DAVIDSON
DIRECTOR OF RESEARCH
TURNTO

UGC IS THE KEY TO MARKETING SUCCESS IN **2018**

As we look into the new year, there are so many tools and technologies that can make your marketing smarter, streamlined and successful. However, this ever-increasing array of bright-and-shiny tools can be overwhelming and potentially distracting.

In evaluating your current strategies and building your 2018 plan, consider how you will connect shoppers in a way that helps them buy with confidence, build a foundation for long-term loyalty and give them a reason to return to your site (not your competitor's) when it's time to buy again. User-generated content (UGC) might be the key to your 2018 success.

It's no secret that UGC is one of the most powerful marketing tools. Consumers gain a level of trust and authenticity when other shoppers and customers share their experiences and reviews. The dynamic of asking a store rep, friend or family member for their thoughts on a product before making a purchase seems archaic. Consumers now tap, click, search and sort through numerous ratings, reviews, Q&As, photos, etc. to get the information they need about products they are thinking about buying.

So, how will this content actually lead to conversions in the new year? Let's look at some data from two perspectives: marketers and consumers. Most consumers (**81%**) say they will pay more for, and wait longer to receive, products that are paired with UGC, according to TurnTo's "Hearing the Voice of the Consumer." The majority say that UGC increases purchase confidence (**72%**) and encourages them to engage with the brand (**67%**).

Marketers are also equally enthusiastic. At **50%**, UGC is the top marketing strategy for distinguishing a brand from a competitor, according to a marketer survey in "Aligning Customer Content with Retail Success." UGC outranked Promotions (**38%**), i.e. "Free Shipping" and "20% Off" discounts, and Data Strategies (**19%**), i.e. Demographic and/or Purchaser Segmentation.

The challenge for marketers in 2018 will be to not rely solely on promotional and shipping strategies, and instead to use UGC to connect consumers. UGC that only exists on the product page will not be enough. A single review request email will not be enough.

Marketers must find ways to include UGC in each step of the customer journey. Ratings in search results. Review quotes in cart reminder emails. Customer submitted photos integrated into product image galleries.

UGC collection must also be frequent and frictionless. Quick capture comments on the order confirmation page. Mobile-friendly photo sharing. In-email review forms. Syndicated UGC between brands and retailers.

Promotional and shipping strategies are still essential elements for a successful marketing plan; but in 2018, it's crucial to do something more to distinguish yourself. You can expect your competition to match everything you are throwing at your customers. UGC gives you a way to boost your discounts and shipping strategies while offering a unique shopping experience, and extends your brand voice throughout each step of the purchase path.
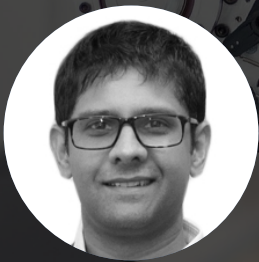
A FUTURE FOR THE HISTORICALLY GLORIFIED, ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is in the "gold rush" mode, with no signs of slowing down.

The invention of AI can be traced back to the 1950's. There was a shortage of Russian translators and machine-driven translation had some early success. Since then, it has survived several cycles of success and some eventful failures. In the current cycle, we seem to be entering an interesting phase with several successful AI deployments. Driverless cars, drones and robotics have resurrected the fantasies of AI.

The recent success, however, is real. It's founded on data accessibility, cloud storage, significant compute power and open source algorithms. Retail is evolving with some successful experiments and likely deployments of Applied AI will make a positive impact in the next 12 to 24 months.

Some of these include:

• **Personalization**: Retailers will save hours of shopping time for a customer, not by offering a complimenting product to the last purchase, but, instead, by segmenting customers based on social signals, physical & professional attributes and purchase histories. By applying AI, product attributes are matched to customer attributes, offering intuitive personalized customer experiences. Some retailers have taken it a step further by delivering a personalized experience through human intervention.

• **Pricing**: Retailers will be making faster and more accurate pricing decisions at scale. While the aviation industry has mastered this capability, retail is in its infancy. Amazon will force retailers to rethink their strategies. The combination of machine learning and human intelligence will allow retailers to formulate dynamic prices based on demand and product price elasticity.

• **Product-line**: Algorithms blended with open data will support several use case decisions like improving private label performance. Data is gathered from transactions, reviews, ratings, consumer and supplier surveys. Insights like improvement in product design or better representation of the product could be applied. Not only AI, but complimenting domain expertise with AI can contribute to delivery of results at an unmatched speed, accuracy and scale.

• **Procurement**: Automation is key to success in procurement. The ability to predict the quantity, type and time of inventory will provide retailers a competitive advantage. By analyzing historical data of shopping cycles, customer demand and time required for procurement, nudges could be programmed for timely action. The intervention of human intelligence will supplement machine learning algorithms in unforeseen situations.

While there is the promise of AI, many retailers have not taken steps to determine whether they need to experiment or commit to AI. They are unclear on what problems to solve, where to begin and how to begin. To add to this, there is a lack of skilled resources, the right infrastructure and data is not in ready-to-use formats.

AI might be a glorified way of "curve fitting" (the process of creating a curve that fits a specified series of data points). In certain cases, it works extremely well, but when it works, one does not know why. I fear that improper understanding and deployment of AI can cause a situation similar to the financial meltdown of 2007-2008. Bad loans were stuffed with good ones into derivatives and no one knew the true value of the derivative. Similarly, open source AI codes packaged together might work in some situations and be disastrous in others. No one would know "why" it failed. Beckoning the beginning of the AI-pocalypse.

Businesses will need to tread with care. They will need to calibrate their expectations, work with the right partners and deploy a **Human Expertise + AI** approach to stay wiser in the promised land of Artificial Intelligence.

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BIG DATA TRANSFORM RETAIL — AND THE TAX FUNCTION

Big data analytics have become essential, even elemental, to e-Commerce and mobile commerce success in all industries, especially retail. However, the tax management challenges related to managing the growing volume of transactional and customer data are anything but elementary.

To thrive, retailers should recognize and address major tax-related data management challenges.

A recent Deloitte report[1] describes big data as "the air we breathe" for good reason. Big data analytics help retailers reduce churn, increase customer loyalty, optimize pricing, sharpen demand forecasts, predict future purchasing trends, increase supply chain visibility and much more. Achieving these benefits requires a customer-focused data management capability — which in turn requires a robust tax technology solution. As retailers leverage more data, three tax-related challenges loom large:

1. Data Quality: Tax professionals must verify that all the data they use is accurate, precise and consistent. A customer's $800 receipt from a purchase at a warehouse club, for example, may include new tires that are subject to an environmental fee (which may be taxable), in addition to numerous other state, county, city and local taxes. Ensuring consistent tax data is difficult because most companies' primary data repository is fed by dozens, or hundreds, of different systems supporting numerous sales channels. As data moves through mobile applications, ecommerce systems, point-of-sale (POS) systems and more, it needs to be unified and/or enriched to enable apples-to-apples comparisons.

2. Tax Complexity: Retail executives responding to a recent PwC Global CEO Survey[2] placed tax burdens atop a list of business challenges that concern them the most. On the domestic front, retailers must manage the taxability of multichannel transactions, exposure to frequent audits, coverage for unique compliance requirements associated with special jurisdictional tax rates and rules, and other changing compliance requirements.

3. Tax Transparency: On the international front, the Organization for Economic Cooperation and Development's (OECD) Action Plan on Base Erosion and Profit Sharing (BEPS) represents one of the most sweeping global tax changes in recent history. BEPS also epitomizes a widespread move toward greater tax transparency in which more jurisdictions in many countries want companies to furnish more, and more detailed, tax and transactional data.

Tax technology can help address these challenges. Sophisticated sales and marketing automation applications automate the collection, unification, validation, enrichment and analysis of customer data. Similar tools are available to tax functions of all sizes. Although these solutions vary in reach and quality, the most effective tax technology tools share important enabling components, including:

- **Unification**: This process harmonizes data from disparate sources for tax purposes. All relevant data are brought together in one place, at an appropriately granular level of detail.
- **Validation**: Once all the data has been gathered, it needs to be evaluated to determine how it fits into tax processes and whether any data needs to be reconciled in light of recent business changes before subsequent tax processing.
- **Enrichment**: This process converts financial data into tax-ready formats, enriched by global tax content and consolidated by the prevailing accounting standards and currency. This process of readying the financial data for tax processing is typically automated, although it may in some cases require expert input.
- **Access**: Once tax has been calculated, all data is retained to satisfy all data-retention requirements (and to provide an audit trail). This process reduces audit exposure and related risks, while keeping the enriched data accessible for a wide range of analyses.

When deploying tax automation with these fundamental capabilities, tax functions can more effectively and efficiently manage the growing amount of data required to satisfy tax compliance requirements and to fuel higher value planning activities.

1. **Deloitte report:** Analytic Trends 2016: The Next Evolution. Deloitte ©2016
2. **PwC CEO Survey:** 2016 Retail and Consumer Products Trends, PwC © 2016

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BRANDS THAT REACT QUICKLY TO CULTURAL TRENDS WILL GAIN RELEVANCE IN 2018

News, entertainment, and social are monopolizing a majority of shoppers' digital eyes 24/7. For retailers to get even a minute of that attention, they must make themselves part of those cultural stories. Retailers who quickly adapt their digital content in response to the latest pop culture events will elevate their brand before the consumer's eyes. To do this, however, they'll need to combine creativity and nimbleness.

Unlike the seasonal changes retail marketers brace for each year, they can't anticipate or prepare for a pop culture phenomenon. But, brands need to act quickly to take advantage of digital or real-world events. The first brands to take advantage of these events are the ones who reap the benefits, and make a statement in the digital sphere. The fresher the content, the greater the reward.

Think back to when Beyoncé's "Lemonade" took the world by storm. Within days, New York & Company seized the opportunity to craft a customer experience on their site relating to the pop hit, and quickly sold out of their lemon print dresses. There was no way for any brand to prepare for such a highly secretive music premiere, so only the truly flexible and agile retail marketers could take advantage of it.

Or, think about New York Fashion Week Fall 2016. New York & Company wanted to get ahead of the "See Now, Buy Now" trend. By sharing imagery, videos, and content within minutes of their runway show closing, they gave shoppers a front row seat to an event usually reserved for the elite. Better yet, they made that content shoppable by incorporating quickviews so customers could be inspired and immediately place that item in their shopping carts. Not only was this a unique experience, but it allowed New York & Company to engage with their audience in a new way. Brands like Burberry and Tommy Hilfiger have done this quite successfully in the past, too.

So, how do brands seize these micro moments in pop culture? They must listen, monitor and plan how to "use" them — and respond when the opportunity presents.

This can be challenging because retailers are used to a formulaic, grid-like approach to content creation and management. This need not be the case, however. Retailers need to think in terms of creating a customer experience and not just creating content. An experience is visual, dynamic, and aligns with and reinforces the brand story. And, when in the context of a news or popular culture event, it is instantly relevant to the consumer. Ideas may include gift guides, lookbooks, quizzes, tutorials, videos, and more. Additionally, marketers could make all this rich media shoppable to further engage audiences.

Retail marketers must take control of the CMS, too. They can ask their ecommerce platform providers about tools that will allow them to add rich customer experiences at a moment's notice, without coding or technical support. Creating rich content might seem overwhelming, but there are user-friendly tools that work with ecommerce and CMS platforms and empower marketers to make these updates on their own — in minutes or hours, not weeks.

We live in an instant gratification, entertain-me society. Seasonal content changes that used to feel revolutionary to marketers and consumers alike now quickly become stale. Brands that are part of the latest pop culture conversations, and those that jump into trending news and events, will stand out in the crowd and attain relevancy in the convoluted retail space.

> **"Brands need to act quickly to take advantage of digital or real-world events."**

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