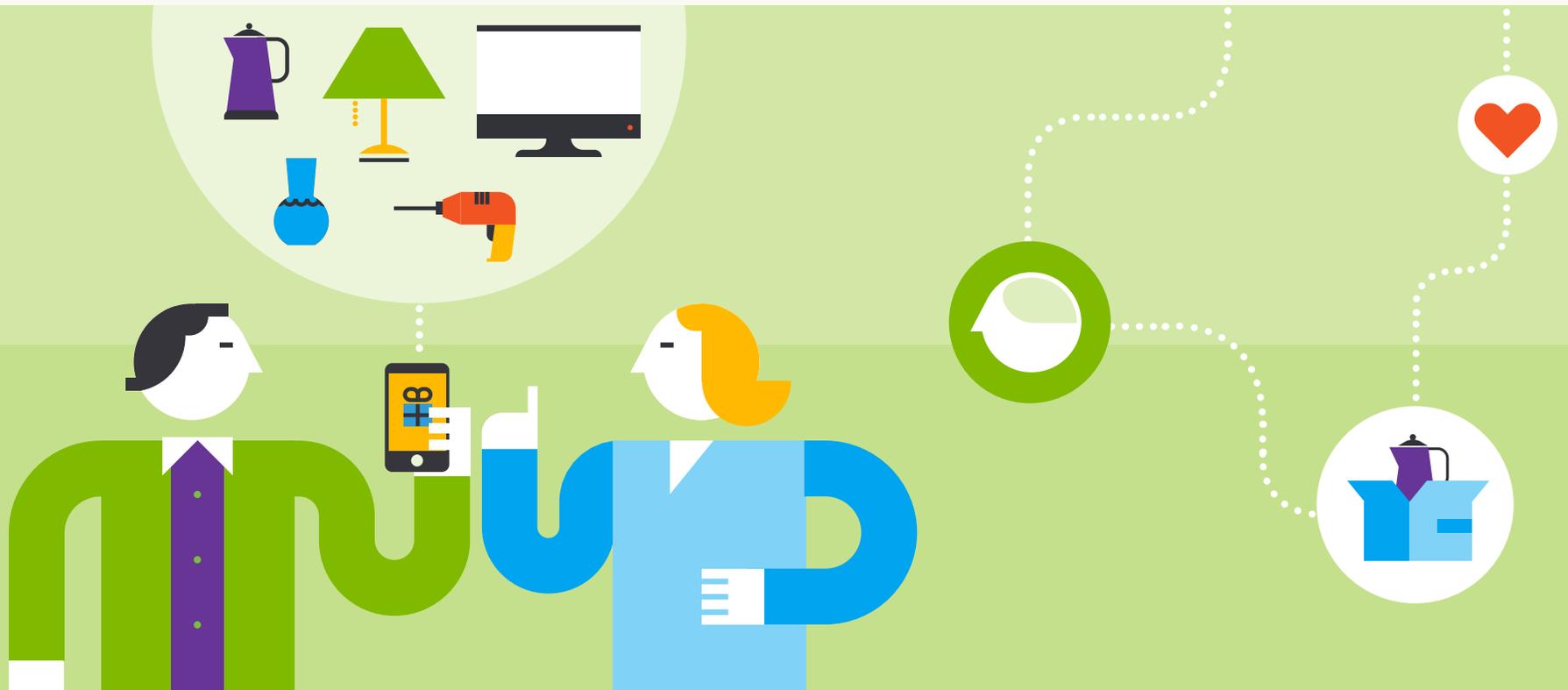


AI RETAIL PLAYBOOK



Transformation Strategies For Intelligent Retail



Introducing The New Retail Paradigm

With the rise of e-commerce titans like Amazon, today's retail landscape is built on a digital foundation—and words like AI, data, personalization, convenience and unified commerce are the new competitive advantages.

As a consequence of this digital ecosystem, consumers have an entirely new set of behaviors and expectations when it comes to shopping. With on-demand services like Amazon Prime offering next-day delivery and 24/7 gratification, shoppers have a much higher bar than their coupon-collecting and bargain-hunting predecessors. They not only consider convenience and flexibility absolute musts, but also crave personalized service and experiences.

As if these shifts weren't difficult enough to contend with, digital and physical retailers alike are

facing unprecedented pressures on growth and a need for profitability. Retailers also must navigate this amid the harsh consequences of inventory at overcapacity, new technology investments and operational costs for expanding their e-commerce channels, which typically operate at a loss.

For retailers to succeed, they have to rethink the way all of their channels work together. The next retail paradigm shift will see offline and online shopping converge into a single, seamless channel. Retailers of all sizes need to be one step ahead of their customers' needs and their competitors' next innovation, requiring agility, adaptability and a digital transformation mindset.

AI is the backbone of digital transformation. AI-powered retail experiences will become

essential for retailers to meet their customers' needs, no matter when, where and how they choose to shop. As a blanket term, AI refers to any number of cognitive softwares that can act, sense and build upon stores of information. Although it's been used to power backend processes, AI is becoming a more sophisticated tool to power differentiated services, curate products and even facilitate a more present, human connection between retailers and their customers.



Piers Fawkes
President, Founder
PSFK

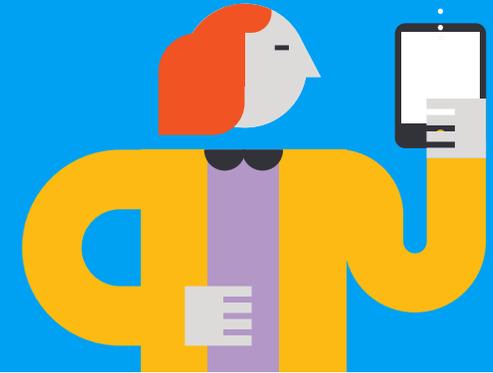
ABOUT THIS REPORT

The AI Retail Playbook outlines a new vision for digital-first, AI-powered retail that proactively and efficiently connects retail organizations to the diverse needs of their consumers. Created in partnership with leading technology provider Microsoft, PSFK's report will help retailers and brands develop an AI-innovation strategy for enhanced customer relationships across multiple channels and devices.

Download the full report here: psfk.com/report/ai-retail-playbook

Microsoft Introduction: Amplifying Human Ingenuity With Intelligent Technology

AI has the potential to empower us all to accomplish more, drive better business outcomes and achieve breakthroughs that redefine what's possible. From changing the transportation landscape to discovering new ways of protecting the planet, from reinventing healthcare to connecting with customers, the opportunities are endless.



Innovations That Extend Your Capabilities

AI is infused into products like Office 365, Cortana, Bing and Skype to help millions of people save time and increase their productivity every day.

Powerful Platform That Makes AI Accessible

Built on breakthrough advances and the power of the cloud, Microsoft delivers a flexible platform that empowers developers and organizations to accelerate innovation.

Trusted Approach That Puts You In Control

With Microsoft's enterprise-grade security practices, we protect your information and put your privacy first. Our principles lead with ethics, accountability, and inclusive design to empower people and organizations, and positively impact society.

MICROSOFT AI PLATFORM

Innovate and accelerate your digital transformation by infusing intelligence into your applications and solutions with powerful tools and services.

▪ Cognitive Services

Enable your apps to intelligently interpret the world through this collection of powerful APIs and to naturally engage your users through vision, speech, language, knowledge and search. With a few lines of code, you can build apps that will learn and adapt over time across a multitude of devices and platforms.

▪ Deep Learning

Microsoft Cognitive Toolkit is a free, easy-to-use, open-source, commercial-grade toolkit that trains deep learning models at

massive scale. Azure provides the biggest AI supercomputer to train and evaluate your model with high performance provided by GPUs and FPGAs, and virtually infinite scale on every deep learning framework, from Cognitive Toolkit to TensorFlow and Caffe.

▪ Bot Platform

Create new experiences and reach users at scale. The Microsoft Bot Framework makes it easy to build and deploy bots across many channels, including Office 365, Facebook Messenger, Cortana, Slack, Skype, Skype for Business and Bing.

MICROSOFT BUSINESS SOLUTIONS

Drive your organization's digital transformation with AI accelerators, solutions, and practices for customer support, sales and marketing support, predictive solutions and more.

Microsoft is helping to make innovation faster and more accessible for developers and organizations. By leveraging flexible tools, APIs, advanced machine learning and the power of the cloud, businesses can advance toward their digital future.

▪ **Business Platform**

Accelerate innovation and business decisions using the Microsoft Cloud. Organizations can create apps with insight, build freely, deploy anywhere and protect themselves with industry-leading security and compliance.

▪ **Data Platform**

Get value from all of your organization's data—from cloud and on-premises data sources and applications—and transform it into actions with powerful visualizations.

▪ **Microsoft Graph**

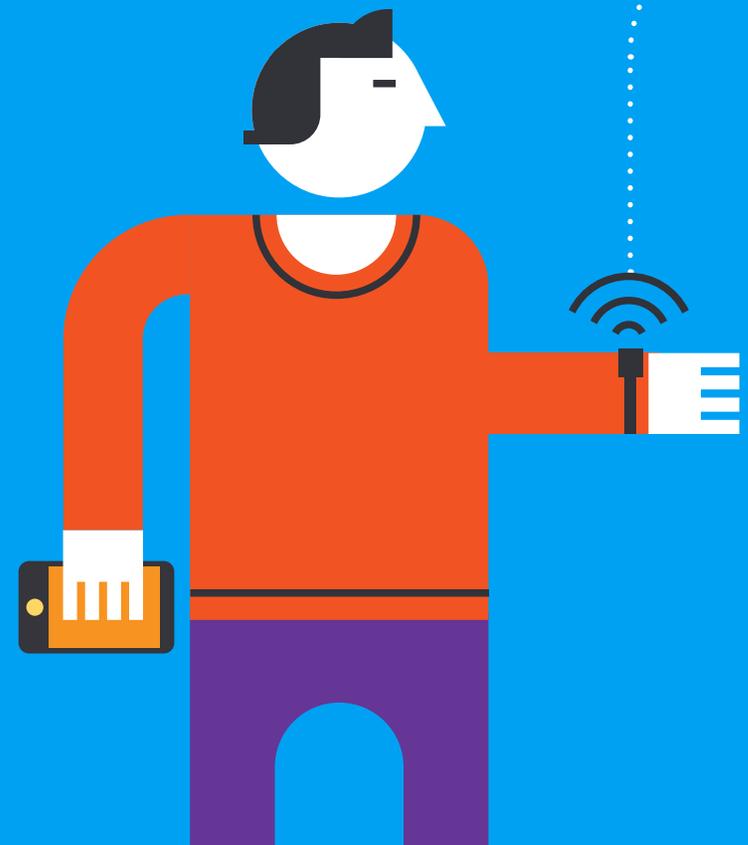
Connect to the data that drives productivity within your organization, including mail, calendar, contacts, documents, directory and devices.

▪ **Solution Templates**

Quickly build solutions from preconfigured templates, machine learning models, reference architecture and design patterns.

▪ **Advanced Analytics and Machine Learning**

Create and execute advanced analytics and machine learning wherever your data lives to deliver deeper insights and predictive results for smarter, more confident decision making.



The Path To Cognitive Retail: New Industry Challenges & Consumer Standards

Steeped in the language of digital commerce, today's shoppers have developed a new standard of behaviors, preferences and expectations for all of their retail experiences. Responsible with meeting these elevated needs, retailers need to overcome the hurdles of legacy technology and captivate each of their customers on a 1:1 basis.



NEW CUSTOMER DEMANDS

In the past, consumer value expectations were centered on three variables: cost, choice and convenience. With instant gratification available at the push of the button, customers are looking to have more control of their purchase journey and are seeking out personalized shopping experiences.

REAL-TIME ENGAGEMENT

Accustomed to the instant access of e-commerce, customers are looking for opportunities to skip the line and have direct communication channels to ask, troubleshoot and, of course, shop.

DIFFERENTIATED PERSONALIZATION

Always on the move and constantly tethered, today's consumers shop where, when and how they please. They expect retailers to keep pace with their mobility and provide consistent personalization no matter where they're shopping.

RELEVANT RECOMMENDATIONS

Customers are exchanging their personal data, like location, purchase history and day-to-day use, for the promise of progressively relevant experiences. Shoppers anticipate that retailers will offer them services and products that are needed in the moment, and change depending on why and how they're shopping.

LONG-TERM BRAND RELATIONSHIPS

Frustrated with the hassle of re-engaging a retailer or resubmitting preferences, customers expect brands to compile personal shopper profiles that can recognize them across channels and build relationships that learn and progress over time.

VALUE-ORIENTED SHOPPING

With convenience already a baseline shopping expectation, consumers are looking for retailers to improve their purchase confidence or empower their decision-making—which will reduce the amount of time spent later returning or exchanging products.



RETAILER IMPERATIVES

For retailers to drive value to a new set of shopper expectations, they need to reinvent the retail experience. Accomplishing this will require a better understanding of customer behaviors and needs, a unified approach to retail operations and the ability to quickly act on key insights.

CAPTIVATE CONSUMERS

With a plethora of innovative competitors providing shoppers with immersive shopping experiences, traditional retailers need to engage customers in a personalized and relevant manner that is unique and inspiring across all touchpoints.

CREATE EXCITING PRODUCTS

To drive continued interest, retailers need to differentiate their products and offer consumers compelling service and experiences. By integrating predictive analytics to gather more market insight, retailers can lead with innovation rather than react to change.

CREATE INSIGHTS FROM DISPARATE DATA

Faced with an onslaught of information from all aspects of their business from supply chain to stores to consumers, retailers need to filter through the noise to transform these disparate data sources into consumer-first strategies.

SYNCHRONIZE OFFLINE & ONLINE RETAIL

Digital and physical shopping channels typically operate under a different set of initiatives and approaches, but treating these channels as distinct business units adds friction to customers seeking a seamless shopping experience and leads to operational inefficiencies.

EMPOWER FLEXIBLE LOGISTICS NETWORKS

In order to service a wider range of customer demands that are moving from mainstream to niche, retailers need to rethink their traditional supply chain in favor of adaptive and flexible ecosystems that can quickly respond to consumers' shifting behaviors.

Applying AI To The Retail Experience: Why Now?

Today's dynamic retail industry is built on a new covenant of data-driven retail experiences and heightened consumer expectations. But delivering a personalized shopping experience at scale—that is relevant and valuable—is no easy feat for retailers. As digital and physical purchasing channels blend together, the retailers that are able to innovate their retail channels will set themselves apart as leaders.

Because they allow retailers to drive game-changing efficiencies and extract actionable analyses from their consumers, AI and cognitive services will be the tools of the trade in this new retail frontier. This accelerated operational pace will position brands as true customer service leaders—from the homepage to the sales floor, and back again.

AI: THE NEW SHOPPING FOUNDATION

“AI is going to be like electricity or the internet—it's going to be foundational technology [on] which most things are built...It takes CRM, it takes all of this other stuff that we've been doing for so long and it makes it better than the sum of the parts.”

Kyle Nel. Executive Director, Lowe's Innovation Labs

45% of retailers plan to use artificial intelligence in the next three years.

Customer Experience/Unified Commerce Benchmark Survey. Boston Retail Partners, 2017

Annual worldwide AI revenue will grow from \$643.7 million in 2016 to \$36.8 billion by 2025.

Artificial Intelligent Market Forecasts. Tratica, 2016

THE CUSTOMER VALUE: EMPOWERING PERSONALIZED & INFORMED SHOPPING

“**53%** of customers will abandon an online purchase if they can't find a quick answer to their questions. AI powers presales services to educate buyers, minimizing purchasing errors and buyer's remorse.”

How AI Will Transform Customer Service. Forrester, 2017

70% of U.S. millennials appreciate a retailer using AI tech to show more interesting products.

Frontierless Retail. JWT Intelligence, 2016

By 2019, about 40% of retailers will develop a customer experience architecture supported by AI, with such platforms providing up to a 30% conversion increase and a 25% revenue bump due to hyper-micro personalization.

IDC Retail Insights. International Data Corporation, 2016

“Brands that create personalized experiences by integrating advanced digital technologies and proprietary data for customers are seeing revenue increase by 6% to 10%—two to three times faster than those who don't.”

“Profiting From Personalization.” Boston Consulting Group, 2017

BUSINESS BENEFITS: OPERATIONAL EXCELLENCE

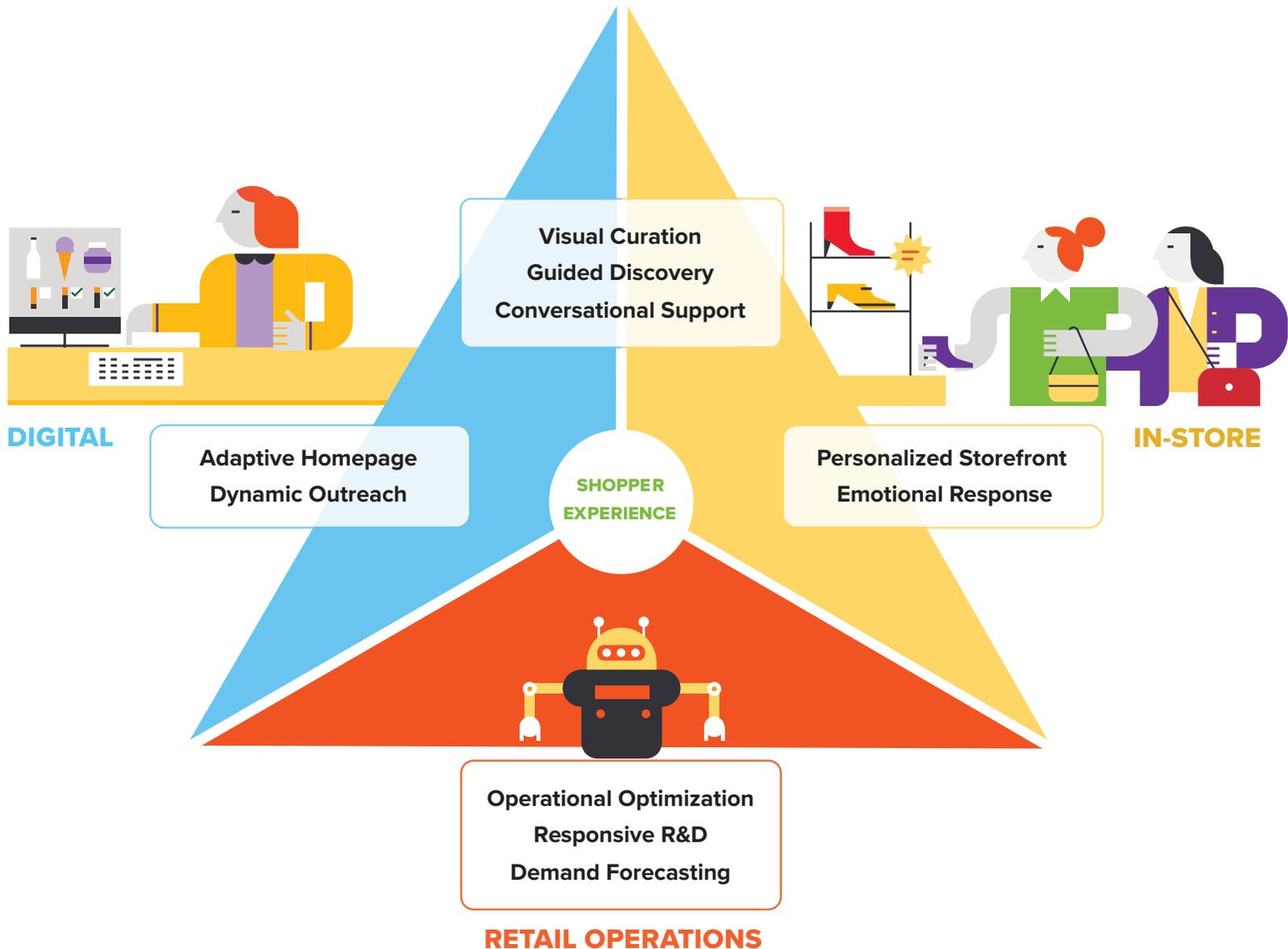
“We believe that AI can deliver business value through making better products, faster, cheaper processes and more insightful analysis.”

David Harris. SVP of IT, Burberry

“By leveraging AI to liberate store managers to do what they do best, retail organizations can elevate their relationships with employees, with customers and with suppliers. Store operations will run more smoothly...and consumers will be drawn to a new, more customer-focused in-store experience.”

Roman Stanek. CEO & Founder, GoodData

Visualizing Key AI Trends Within The Retail Landscape



AI Trends Shaping The Retail Industry

Adaptive Homepage

Mobile and digital portals are recognizing customers and customizing the e-retail experience to reflect their current context, previous purchases and shopping behavior. AI systems constantly evolve a user's digital experience to create hyper-relevant displays for every interaction.

Dynamic Outreach

Advanced CRM and marketing systems learn a consumer's behaviors and preferences through repeated interactions to develop a detailed shopper profile and utilize this information to deliver proactive and personalized outbound marketing—tailored recommendations, rewards or content.

Visual Curation

Algorithmic engines translate real-world browsing behaviors into digital retail by allowing customers to discover new or related products using image-based search and analysis—curating recommendations based on aesthetic and similarity.

Guided Discovery

As customers look to build confidence in a purchase decision, automated assistants can help narrow down the selection by recommending products based on shoppers' needs, preferences and fit.

Conversational Support

AI-supported conversational assistants use natural language processing to help shoppers effortlessly navigate questions, FAQs or troubleshooting and redirect to a human expert when necessary—improving the customer experience by offering on-demand, always-available support while streamlining staffing.

Personalized Storefront

Intelligent retail spaces recognize shoppers and adapt in-store product displays, pricing and service through biometric recognition to reflect customer profiles, loyalty accounts or unlocked rewards and promotions—creating a custom shopping experience for each visitor, at scale.

Emotional Response

By recognizing and interpreting facial, biometric and audio cues, AI interfaces can identify shoppers' in-the-moment emotions, reactions or mindset and deliver appropriate products, recommendations or support—ensuring that a retail engagement doesn't miss its mark.

Operational Optimization

AI-supported logistics management systems adjust a retailer's inventory, staffing, distribution and delivery schemes in real time to create the most efficient supply and fulfillment chains, while meeting customers' expectations for high-quality, immediate access and support.

Responsive R&D

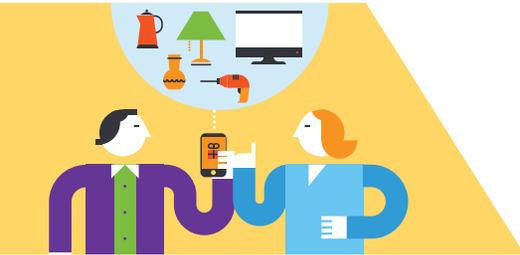
Deep learning algorithms collect and interpret customer feedback and sentiment, as well as purchasing data, to support next-generation product and service designs that better satisfy customer preferences or fulfill unmet needs in the marketplace.

Demand Forecasting

Mining insights from marketplace, consumer and competitor data, AI business intelligence tools forecast industry shifts and make proactive changes to a company's marketing, merchandising and business strategies.



4 Scenarios That Frame AI-Integrated Retail



SEAMLESS PRODUCT DISCOVERY & SELECTION

Now more than ever, customers want to offload the responsibility of browsing to their preferred retailers—expecting them to curate product selections that are relevant and anticipated. By employing digital assistants, automated search engines and powerful data-driven analytics, retailers can deliver valued shopping experiences that work for the shopper and connect them to needed and desired products.



PERSONALIZED SERVICE & SHOPPING EXPERIENCES IN STORE

Rich in data and seamless customization, digital commerce channels provide customers with tailored services that remember their previous interactions and shape their future purchases. Retailers are meeting this personalization standard by leveraging connected technologies and cognitive services, resulting in more informed employees, seamless checkouts and real-time, physical recommendations.



DATA-DRIVEN OPERATIONS

Fast-changing consumer preferences and agile competitors require retailers to be lean and enable a predictive, not reactive, approach to retail. Using a consolidated data framework driven by AI-enhanced insights will allow retailers to make informed decisions and optimize their operations, resulting in a purposeful and seamless shopping experience.



EFFECTIVE MARKETING CAMPAIGN DEVELOPMENT & EXECUTION

Retail marketers deal extensively in research and analysis, fitting and molding narratives to match key demographics and targeted consumers. As consumers filter out advertisements that don't apply to their unique lifestyles, it's even more imperative that marketers leverage the analytical power of AI to build smarter, more effective advertisements that resonate with audiences.

Seamless Product Discovery & Selection: The Opportunity

Today's customers are ever mobile and on the move. They won't devote time scrutinizing catalogues of inventory, but look to retailers to help them choose by offering product curation and suggestions. This not only ensures a speedy purchase path, but also drives value to a shopping experience—whether online, offline or a blend of both channels.

To respond accurately and efficiently to this shopper expectation, retailers need to make browsing seamless, intuitive and even predictive. From natural language processing to visual image searching, shoppers have more opportunities to find the right product without straining their time. Retailers can bundle these features into a virtual assistant or chat-based application to grab their customers' attention.

AI TRENDS DRIVING THIS SCENARIO:

- Adaptive Homepage
- Visual Curation
- Conversational Support
- Dynamic Outreach
- Responsive R&D

HIGHLIGHTING THE OPPORTUNITY



“Becoming more engaged with customers includes predicting what customers want before they know they want it, based on data intelligence, and offering it to customers in a way that’s natural.”

Satya Nadella. CEO, Microsoft



67% of consumers say they research products online—at least occasionally—before shopping for them in brick-and-mortar stores.

Retail Dive Consumer Survey, 2017



“Trying to browse in a physical space as opposed to online is much more difficult. It’s harder for customers to choose things because they have to use an online channel in order to get recommendations or information about a product. All of these things become a point of a friction for customers because their online experience is a lot smoother.”

Bharat Popat. Industry Solutions Director (Retail & Consumer Goods), Microsoft



“AI will allow us to get closer to our consumer and give them what they want. Natural language processing and visual search are providing new ways to discover product. I believe there is huge value from this technology.”

Vladimir Stankovic. Global Digital & E-Commerce Director, Camper

SCENARIO: Employing Virtual Assistants To Understand & Adapt To Customer Needs

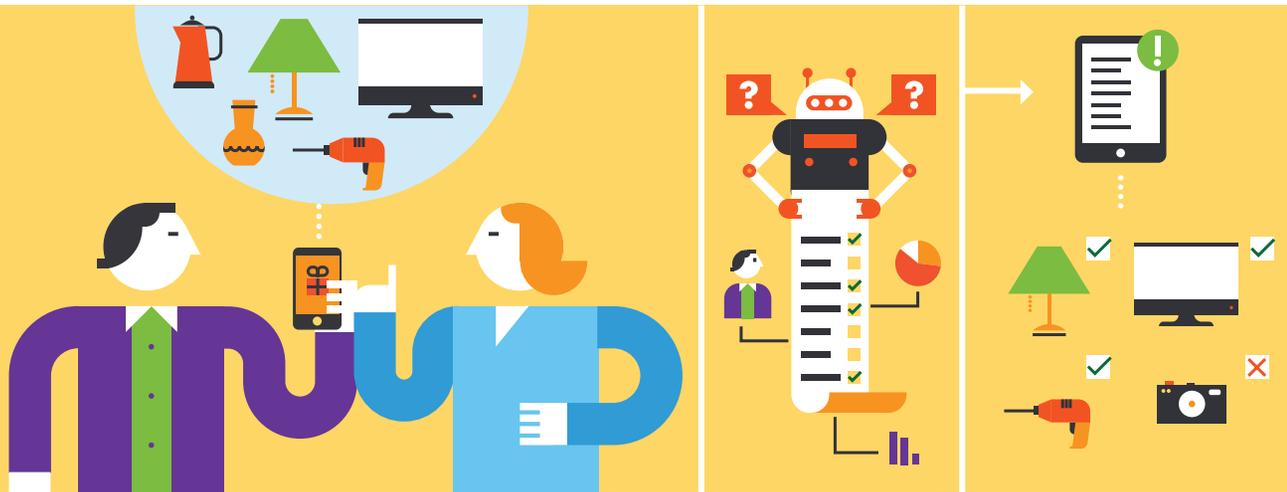
An engaged couple is planning their wedding and selecting products for their bridal registry at their local department store, but are overwhelmed by the amount of options.

1

Eva and Ashley download their department store's bridal registry app, which includes a virtual assistant. The virtual assistant prompts them to partake in a survey, which asks them questions about their age, gender, location and preferences. They also choose to share their satisfaction rating from their purchases.

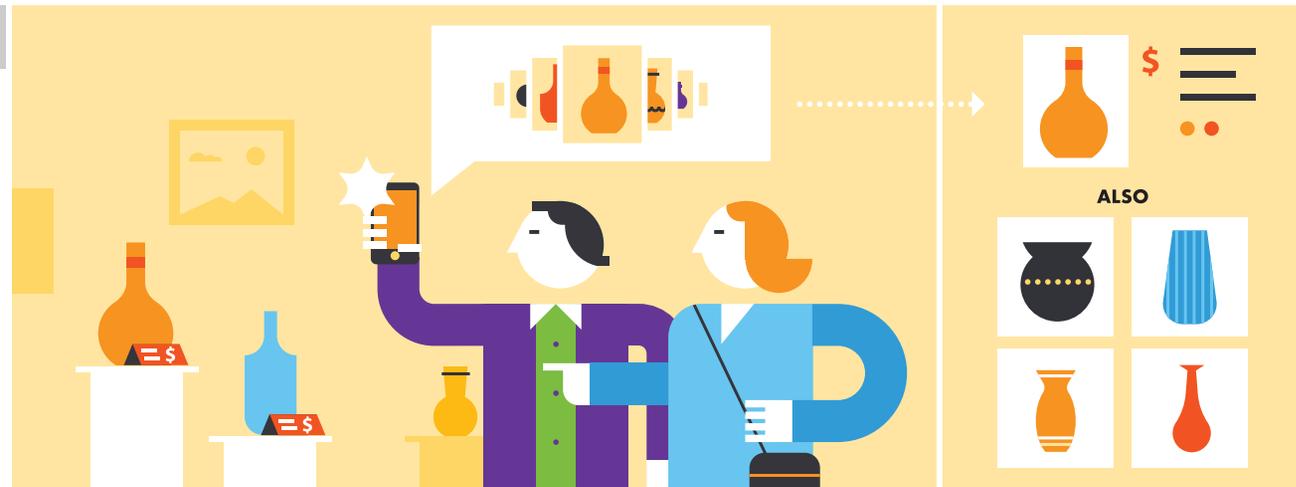
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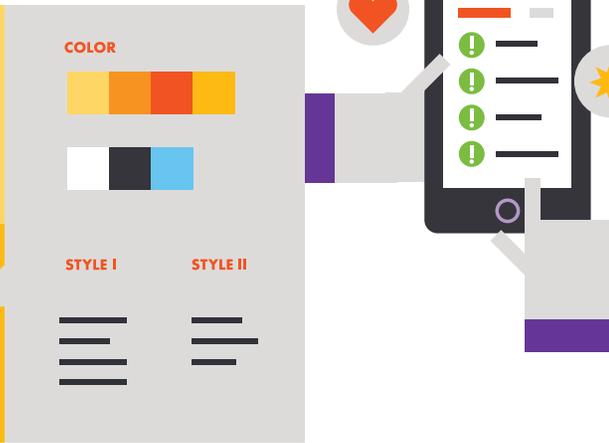
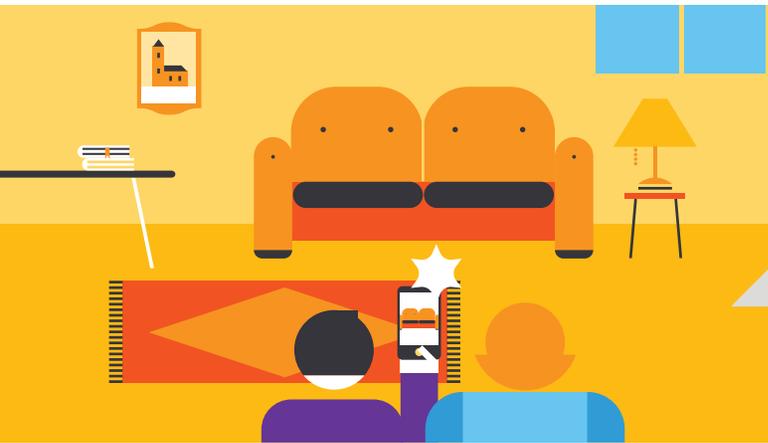
Eva and Ashley opt into a data collection program that accesses their personal data for specialized notifications and product recommendations by monitoring browsing history and previously inputted preferences. The chatbot sends product suggestions from brand partners after detecting the couple's day-to-day needs at home, at work and during their commutes. Eva and Ashley can choose to add these products to their registry or decline them.



3

As they are out and about shopping for their registry, Eva and Ashley snap photos of products they like from other stores. The department store's visual search identifies the products and similar items.



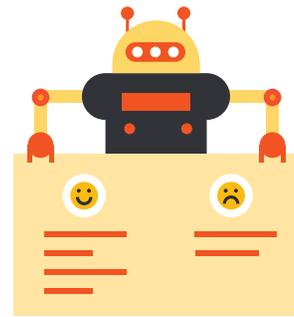


4 The app also allows them to take a picture of their home, and uses visual analysis to choose complementary colors and styles suitable for their residence.

5 The couple ask their virtual assistant questions and receive feedback about alternative products they are also considering purchasing.

6 After receiving their wedding gifts, their virtual assistant asks Eva and Ashley about their satisfaction with the gifts they received.

7 The system compiles Eva and Ashley's satisfaction ratings to improve future gift recommendations for like-minded consumers with similar preferences and demographics.



Digital Transformation Strategies: Initiating The Path To AI-Enabled Retail

- Identify points of friction at the early stages of customer research and browsing, and consider employing virtual assistants or automated browsing engines to quickly connect consumers to desirable products
- Tap into existing social media streams and previously inputted preferences to find products that resonate with consumers, without requiring them to initiate the process
- Encourage customers to search for products via voice, text or photo capture for anytime, anywhere engagement according to their contextual and present needs
- Avoid limiting customers to a single retail platform, and allow them to access virtual assistance or their customer data from mobile, desktop or in-store
- Be transparent with shoppers about how their data collection is improving their shopping experience, but allow them to set restrictions on data capture

Microsoft Spotlight



INNOVATION IN ACTION

Affordable luxury retailer **Macy's** enhanced its website by developing a virtual agent built on the **Microsoft Dynamics 365 AI** solution for customer service. The Macy's virtual agent provides a conversational, text-based interface that connects to Macy's internal system APIs to access information about merchandise and orders, offering customers real-time responses to common inquiries. The bot can also provide merchandise recommendations, look up a customer's reward points and provide them with tailored discount offers. Because the bot is fully integrated into Macy's existing API and its highly scalable services, the Macy's team has been able to focus on developing the best-in-class customer experience.

Visit customers.microsoft.com/en-us/story/macys-retail-microsoft-ai for a more in-depth look

Personalized Service & Shopping Experiences In Store: The Opportunity

Digital purchase channels make it easy for shoppers to instantly satisfy their hunger for any product at the touch of a screen, shipped at the earliest convenience. Traditional retail cannot hope to compete in this convenience-first, personalization-heavy environment without rethinking how to deliver a valuable shopping experience in their stores.

For retailers to prove their worth and thrive in this online paradigm shift, they must invigorate their physical store experiences by capitalizing on their strengths: engaging service and human connection. An AI architecture can allow retailers to integrate the data-driven, heavily personalized nature of digital shopping into a physical storefront. As a result, retailers can put customers at the center of their business and create the personal, differentiated experiences that shoppers are craving.

AI TRENDS DRIVING THIS SCENARIO:

- Personalized Storefront
- Guided Discovery
- Emotional Response
- Dynamic Outreach
- Responsive R&D

HIGHLIGHTING THE OPPORTUNITY



“There’s a lot of interest in the AI disruption of the digital world, but also on the physical world. Here is where cognitive point of sales could change the experience of a physical store and [enable] personalized physical offers to a particular shopper.”

Jaime Pereña. Director of Marketing And Strategy of Enterprise Artificial Intelligence, Microsoft



“The future of retail is dependent on the integration of physical stores with digital channels to create a connected and seamless shopping experience across the full journey. AI is the key enabler of unlocking such an experience.”

Ali Dalloul. General Manager of Ambient Intelligence (Business AI), Microsoft AI & Research Group



“The data is having this profound effect on the amount of things that you buy and the things that you’re exposed to that you might buy. Taking that off a website and being able to do that in a physical store is a very powerful idea.”

Andy Hood. Head of Emerging Technologies, AKQA

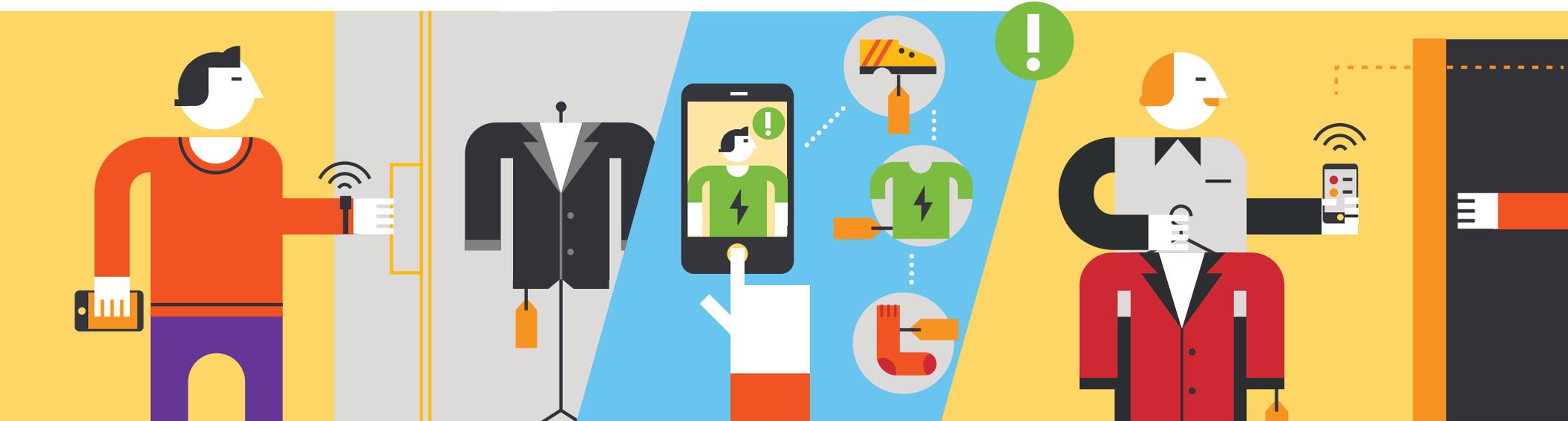


By 2019, about 40% of retailers will develop a customer experience architecture supported by AI, with such platforms providing up to a 30% conversion increase and a 25% revenue bump due to hyper-micro personalization.

“AI Set To Soar.” Retail Dive, 2017

SCENARIO: Building Comprehensive, Informed Shopper Profiles

Anton is a recent college graduate who just accepted a job at a PR agency and needs to purchase a wardrobe appropriate for his new workplace.



1 Anton goes to his favorite men's clothing store, where his mobile device is detected by the store's operating system and he is 'logged in' as a premium member.

2 Using his store app, Anton requests assistance shopping for professional clothes. Store associates are alerted to Anton's request and begin to stock a fitting room with products that meet this criteria, using an AI styling assistant tool to provide recommendations based on Anton's profile and previous purchases.

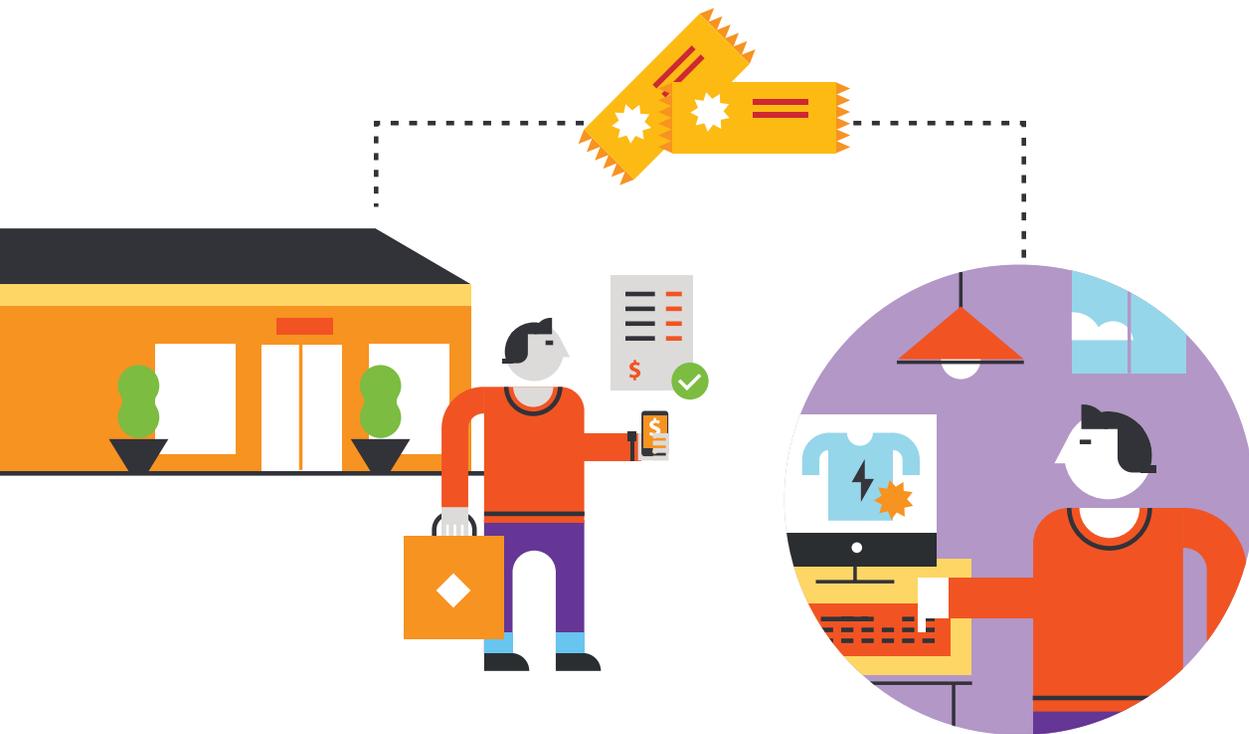


3

Anton brings some of his favorite pieces into the fitting room to try. In-store shopping assistants input into their app Anton's reactions to his clothes. AI software are able to guide further product suggestions and fine-tune offerings.

4

As Anton tries on outfits, store associates and emotionally-aware visual recognition technologies understand which items Anton feels comfortable in. His responses guide further product suggestions.



5

Anton tries on a blazer and likes the color and style, but wants a more fitted size. An employee orders a custom blazer for Anton, to be shipped directly to his home. Anton happily purchases the blazer and two other items in store.

6

Anton's reaction to the blazer fit, along with the garments he rejected, are cataloged and help inform the retailer's next season of clothing.

7

The retailer's CRM algorithm sends Anton coupons as he becomes assimilated into his new role. One year later, Anton receives a promotion suggesting new shirt styles to help him spruce up his wardrobe for his annual review.

Digital Transformation Strategies: Initiating The Path To AI-Enabled Retail

- Tap into technology that visitors already carry with them [i.e. mobile, wearables] to offer on-demand support, wayfinding or a seamless login as they enter a retail environment
- Consider aspects of the in-store purchase experience that can be automated or digitized to reduce friction and offload associate work
- Ensure employees have easy access to customer shopping profiles to empower them to provide insightful, meaningful service
- Identify in-store customers who have had previously frustrating shopping experiences and trigger employees to provide exceptional, tailored service or discounted offers
- Develop ongoing feedback loops by gathering insights from previous shopper experiences, on both a product and service level

Microsoft Spotlight

The Fragrance Shop

INNOVATION IN ACTION

Designer fragrance retailer the **Fragrance Shop** employed **Microsoft Cloud Technologies** and **Microsoft Azure** in order to develop a stronger understanding of its customers and establish a more connected, personalized experience. The Fragrance Shop's physical stores are able to collect live data—like how many customers enter and walk past the store, sale frequencies and conversion by the minute. This data empowers their information staff to reconsider the roles they perform within the business and business functions as a whole. Additionally, the retailer is able to offload the responsibility of IT elements, like security, high availability and scalability, to Microsoft. As a result, IT teams can focus more on strategizing business operations and optimizing the customer experience.

Visit customers.microsoft.com/en-US/story/the-fragrance-shop for a more in-depth look

Data-Driven Operations: The Opportunity

Although retailers prioritize placing the customer at the heart of their business, understanding customer behaviors and evolving needs can be challenging when faced with other organizational headwinds—from economic pressures to steep technology adoption curves.

The latest advancements in data analytics and AI technology allow retailers to put customers truly at the center of their business, without straining their resources or discarding what makes the physical retail experience valuable. Implemented into the physical storefront, innovations like cognitive and machine learning and advanced analytics—combined with connected devices like beacons, machines and headsets—can infuse data and insights wherever they're needed throughout the customer's shopping journey. As a result, retailers can transform the customer journey and deliver unprecedented value to their shoppers.

AI TRENDS DRIVING THIS SCENARIO:

- Adaptive R&D
- Operational Optimization
- Demand Forecasting

HIGHLIGHTING THE OPPORTUNITY



“Without artificial intelligence, you cannot transform data into meaningful insights that inform the shopper journey, optimize operations, help the retailer transform and build better products and services.”

Ali Dalloul. General Manager of Ambient Intelligence (Business AI), Microsoft AI & Research Group



“For each operations challenge, like assortment planning or inventory, you can take the complexity out for these people and apply AI in order for them to achieve that objective using a lot more data and complex calculations.”

Bharat Popat. Industry Solutions Director (Retail & Consumer Goods), Microsoft



“Every single point of interaction that a consumer has with a retailer is another dot. It is another piece of data that helps to make up the picture.”

Kevin Lindsay. Director of Product Marketing, Adobe Target



“We're putting AI front and center as a driving force to make [smart commerce] happen. The curve is steep but the opportunity is extraordinary. So we're going to start climbing; we're right at the precipice of a transformational inflection point.”

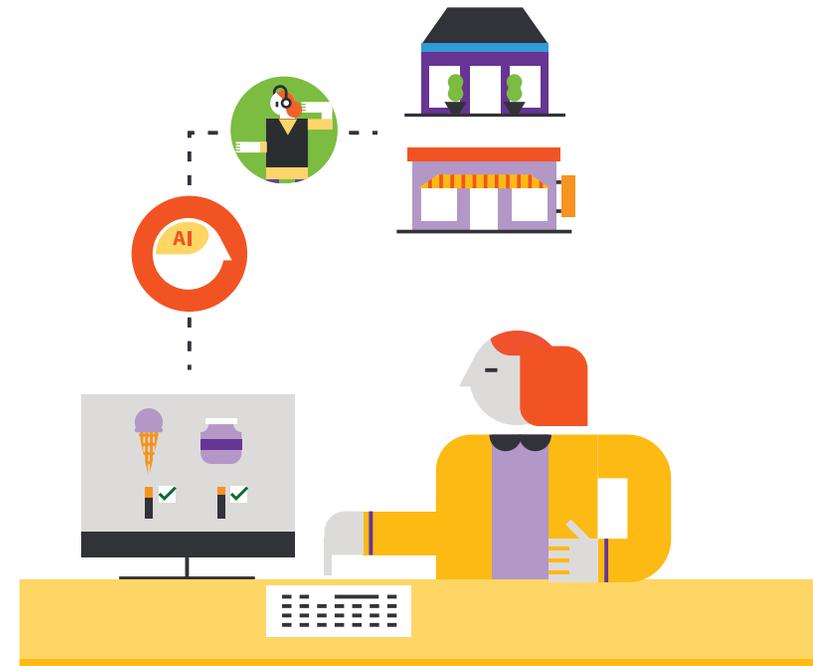
RJ Pittman. Chief Product Officer, eBay

SCENARIO: Optimizing In-Store Operations Through Extensive Data Frameworks

Rashida manages three neighborhood grocery stores, including two pick-up centers. Her key focus is on an assortment that serves her loyal customers, optimizing inventory and staffing to meet her profitability targets and delivering flawless service in each location. Rashida implements an in-store AI operating system to help her manage store resources and processes.



1 In an effort to consolidate the data collected from each of her stores and understand the purchasing behaviors of her customers, as well as keep up to speed with local market trends and competition, Rashida employs an AI-powered operating system. The platform operates on a universal dashboard that allows her to run analytics against her preferred data set and visualize the results for greater insight.

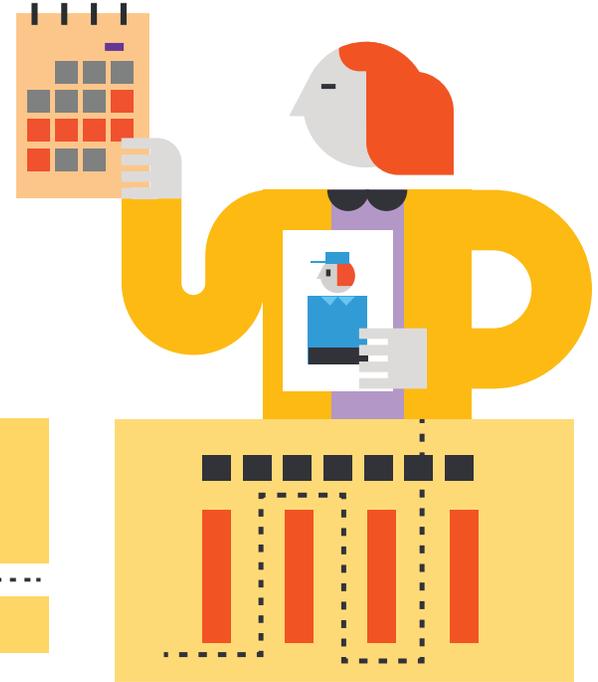


2 A CRM-feature captures each customer's online and in-store purchases. Additional data from IoT sensors tracks customers in-store to measure the products that they show interest in but do not buy, as well as how long they spend shopping.

3 Rashida discovers that most of her loyal customers regularly shop at least two of her stores. Using machine learning models provided, she is able to optimize the inventory mix at each of her stores to target them with products that suit their lifestyle and activities.

4

Local events like school picnics and holiday parades also influence what they want to purchase. Rashida uses a conversational interface to finetune her inventory projects against relevant contextual data to ensure the right products are in stock and maximize her profits.



7

In-store analytics track customer activity like foot traffic and length of average shopping trip. Rashida's dashboard uses store and line monitoring sensors to predict checkout service levels and adjust front-end staffing needs accordingly.

5

Her loyal customers not only shop at different stores, but sometimes use pick-up services or home delivery. The system is capable of analyzing daily orders to move the right merchandise from the right store based on expiration dates, availability, etc.

6

Backend logistics are dynamically managed to ensure orders are packed efficiently given desired delivery and pick-up windows, with driver routes pre-planned to minimize their time on the road.



Digital Transformation Strategies: Initiating The Path To AI-Enabled Retail

- Consider how disparate data from different stores can be cross-referenced and applied to a store-wide framework to ensure consistent service and operations
- Derive insights from activity-detecting sensors to understand how shoppers are moving through a particular store and where the purchase path terminates
- Compare marketplace sales data alongside consumer sentiment and contextual factors like weather and holiday events to better plan for demand
- Improve and transform the customer journey based on ongoing learning personalization and recommendation engines

Microsoft Spotlight



INNOVATION IN ACTION

The vending machine and drink appliance manufacturer **Mars Drinks** worked with Neal Analytics to leverage **Microsoft's** cognitive services and data technologies in its vending machines. By employing software like **Cortana Intelligence Suite, Microsoft Azure IoT Suite** and **Power BI technology**, Mars Drinks can use remote sensors and predictive computing to better maintain stock levels, understand consumer interactions and account for changes in demand based on contextual factors like holidays and weather.

Visit bit.ly/Mars_Microsoft for a more in-depth look

Effective Marketing Campaign Development & Execution: The Opportunity

Just as customers have different needs in-store or online, they have different needs for content, marketing and advertising that inspires and captivates them. To increase campaign performance, win new customers and drive more revenue, retailers need to gather a holistic understanding of their consumers' behavior and preferences—at rapid pace.

An AI architecture and machine learning can help advertisers produce relevant content at scale for the breadth of their customers. By automating data management, identifying leads or making feedback or response tangible, advertisers can create campaigns that not only resonate deeply with their audiences, but connect to them at the right place and time.

AI TRENDS DRIVING THIS SCENARIO:

- Dynamic Outreach
- Emotional Response
- Adaptive R&D
- Demand Forecasting

HIGHLIGHTING THE OPPORTUNITY



85% of shoppers who made a last-minute purchase from a personalized marketing message said they were happy with their order, and only 5% said they wanted to return the item.

AI In E-Commerce. BI Intelligence, 2017



“78% of our revenue comes from credit cards, so we already know a lot about our customers. Now what we’re really thinking about is how do you really personalize the experience for them and how do you create content that is really personalized and resonates with [each of them]—and this is really difficult, it takes humans and data and AI.”

Charmaine Huet. Chief Marketing Officer, Woolworths South Africa



“Understanding things like social profiles, movement, weather and behavior, AI can help marketers understand at a more granular level what consumers want and need.”

Michelle Peluso. SVP & Chief Marketing Officer, IBM



“I think there’s a lot more that AI can do than just recommend the next purchase. I see the future of AI adding content that would make your adventure more interesting. What about product education, content about where you might be going or what activity you might be doing?”

Cal Bouchard. VP of Digital Commerce & Experience, Microsoft

SCENARIO: Driving Purposeful Outreach With Targeted Insights

Arnold is a marketing director at a footwear brand that is using an AI-supported program to drive development and planning for their next holiday campaign. This year's campaign, like last year's, will include pop-up stores and email promotions to build consumer engagement.

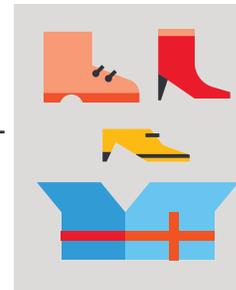
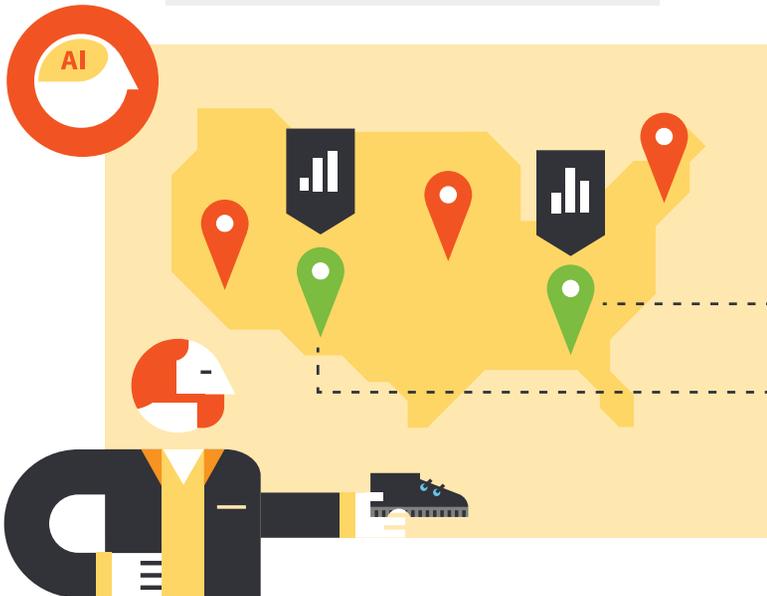


1

Arnold's team begins their planning by reviewing the program's analysis of last year's success; they designate the two top-performing pop-up locations, as well as the 5 top performing pieces of creative. Arnold and his team rebook the pop-up locations and work with designers and copywriters to evolve the holiday creative.

2

The AI system identifies three new emerging markets where product interest is growing based on data pulled from sales, social media and search queries. Arnold uses these insights to round out his pop-up location selection.



3

Natural language processing also helps the team derive insights about viewers' opinions of the previous email creative, parsing through user comments and earned media. This further informs the creative team, which creates 10 different holiday emails targeting different consumer groups: families, performance athletes, career professionals and others.



4

Lower-performing creative is flagged by the system and sent back to the design team for mid-campaign tweaks.

5

At launch, the AI software supports the sales team in targeting audiences with specific emails and rewards based on their previous purchases and shopper profiles.

6

At the pop-up locations, visitors who opt in to share preliminary information about their needs and routines are sent targeted emails and offers to begin a new relationship with the brand.



Digital Transformation Strategies: Initiating The Path To AI-Enabled Retail

- Leverage automated systems to offload the editing and research processes and position humans as leaders in emotive narratives and compelling storytelling
- Reconsider the content engagement channel, and implement findings from marketing research into bot and automated messaging systems
- Use AI research and culling to derive predictive analysis at incremental levels—start with next year, then five years and possibly ten years out
- Be transparent with consumers about how their data is being used and allow them to set parameters

Microsoft Spotlight

IGNITION
Ai

INNOVATION IN ACTION

Data-driven marketing firm **Ignition AI** leverages **Microsoft Azure**'s cloud-based platform to store, process and analyze their data. Because they source data from a variety of channels—from previous interactions to social media history—they use Azure for rapid analysis and scalability. Additionally, Azure's APIs enable them to connect seamlessly with other third-party systems to increase their breadth of specialist services. Microsoft's infrastructure is not only secure, but it encourages Ignition AI to grow quickly to meet their changing business demands.

Visit customers.microsoft.com/en-us/story/ignition-ai for a more in-depth look

Final Takeaways: AI Design Principles

Amplifying Human Ingenuity Through Cognitive Services

An AI framework can unlock the impossible, delivering profound value to individuals, offloading daily burdens and helping them achieve more. To truly unlock the possibilities of AI, retailers and brands need to build upon an ethical foundation of transparency, democratization and human-first experiences.



Design For People

Develop experiences that position the human first—whether it's your customers or your employees. Target specific pain points or hurdles that limit human potential, and position the human worker as the primary leader in innovation, choice and strategizing.

Honor Cultural Values

Be inspired by the diversity of your customers and respect their unique values, differences and varying experiences. Design unique AI interactions, features and opportunities that look to targeted cultures or demographics for inspiration—without destroying dignity or contributing to bias.

Acknowledge Context

Adapt interfaces, solutions and use cases depending on where and how your customers or employees are working, playing or living.



Enable A Constant Learning Loop

Tailor experiences based on ongoing interactions and changing behaviors. At the same time, place humans at the center of control, allowing them to input preferences, respond with feedback and control their AI interactions.

Build On Trust

Allow humans to have control of their data and how they interact with technology on a daily basis. Inform them about how their data is being securely collected through intelligent privacy, and preach accountability, inclusion and security.

About PSFK

PSFK helps the world's leading brands understand the impact of emerging trends and consumer insights in Retail, Advertising and Design across industry verticals. For its members and clients, PSFK's provides a mix of insights, experiences, research for internal agenda-setting and external-facing thought leadership.

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About Microsoft

Microsoft enables retailers to deliver personal, seamless, and differentiated customer experiences by empowering people, enabling digital transformation, and capturing data-based insights to drive growth.

Learn more about intelligent retail at microsoft.com/retail

