



# EMPOWERING TAILORED CUSTOMER EXPERIENCES: AI-POWERED HYPER PERSONALIZATION IN ACTION

## Evolving Towards Hyper Personalization

In the age of escalating demands, businesses constantly look for ways to keep their target audience engaged and satisfied. Digital technologies have become an invaluable part of this journey as companies seek to boost customer experience by several notches. The **Infosys Digital Commerce Radar 2023** report establishes a tangible link between the extent of digital capabilities implemented and strategic, operational, customer, and financial performance. Specifically, the report highlights personalized offers and pricing, personalized customer service and context persistence across channels as a definite lever to enhance business outcomes.

Companies are only now coming to grips with implementing personalization, but it is already time for hyper personalized experiences where real-time data is used at a deeper and granular level to deliver tailored content to each customer. As a result, customers are treated to sophisticated experiences which consider their particular context to present more relevant and better offers, recommendations and proposals.

With hyper personalization, customers get ultra-customized offers on products they are interested in that display a nuanced understanding of their preferences and likes. However, it goes beyond general customization and dives deep into the customer by harnessing data analytics, AI and other advanced technologies.





In particular, AI has rapidly advanced to add tremendous value to hyper personalization efforts. For example, with its help, a bank can send personalized alerts to customers about their account balance and spending habits and give customized guidance for money management. Furthermore, it can send warning alerts by analyzing the customer's data to identify potential problems, such as overdrafts or fraudulent transactions. In addition, it can craft personalized offers and discounts.

It makes sense for businesses to understand how AI can contribute to hyper personalized commerce experiences. AI's impact can be explored across three dimensions of the client engagement journey - customer interface, sales agent interface and backend systems.

### 1. Impact of AI on Customer Interface Channels



Commerce transactions can occur across multiple channels - web, mobile or kiosk or any other new interface that surfaces. Therefore, AI's influence will extend across all interfaces.

That's what a food and beverage company desired. So, in addition to collecting consumer data from the web, mobile and physical stores, it wanted data from vending machines as well to generate holistic insights into customer shopping patterns and behavior. In another example, customers can check out how a particular dress looks on them with Virtual Try-On technology powered by augmented reality (AR) and AI based recommendations. However, its application can extend much more. In addition, Generative AI can assess different backgrounds and lighting to allow the shopper to experience the dress in various settings, enabling a more personalized shopping experience.

Some more ways in which AI can add value are

**AI with edge analytics** is a powerful combination that can be tapped into to create hyper personalized product catalogs, offers and promotions. Most importantly, privacy is preserved as personally identifiable information (PII) is withheld from backend systems.

#### Concept in Action: Real-Life Showcases

Emily explores an online retail store through a mobile app with AI-driven edge analytics. Thanks to the embedded AI algorithms, the app collects and analyzes Emily's browsing data and behavior patterns directly on her device. It ensures that her data remains private and confidential, as it does not leave her device. The app processes her behavior patterns and preferences in real-time, enabling it to generate highly personalized product recommendations tailored to Emily's specific interests. Emily has complete control over her privacy settings and can adjust the level of data sharing. The application can rely on offline AI or limit the data leaving the device to scaled attributes rather than exact details of actions performed.

**Intelligent Digital Assistants** can easily don the role of sales executives to provide a hyper personalized buying experience.

#### Concept in Action: Real-Life Showcases

Sarah, a tech-savvy professional, relies on an AI-enhanced intelligent voice assistant called Eva to assist her throughout the day. The latest advancements in AI technology have made Eva's interactions more human-like and enabled hyper-personalization. Eva analyzes Sarah's preferences, browsing history, and past interactions to offer hyper-personalized recommendations for restaurants, movies, and more. For example, when Sarah asks about breakfast options, Ava suggests nutritious avocado toast with a poached egg and fresh berries, considering Sarah's dietary preferences, fitness plan and allergies.

**Seamless context switching** using AI allows transitioning between any number of channels without losing the hyper personalization touch.

#### Concept in Action: Real-Life Showcases

As a busy professional, Ed is multitasking by working on his laptop and ordering groceries online. He adds two items to his cart but then needs to leave for the office. While driving, Ed's virtual AI assistant alerts him that his grocery order is incomplete. AI capabilities allow seamless completion of the order with conversational inputs from Ed.

**Language and accent barriers are overcome with AI** to gain more adoption and ensure a personal touch. Significant progress in this area has ensured that AI assistants can assume a male or female persona and offer several personalization options, including voice modulation. It's like interacting with a familiar person.

#### Concept in Action: Real-Life Showcases

In a bustling foreign market, a traveler encounters language and accent barriers while trying to communicate with local vendors. However, a digital AI assistant understands and processes different languages and accents, allowing travelers to speak their native language. In addition, the assistant translates their request into the local language, accounting for regional accents and dialects.

**Human-like interactions** with AI leads to sophisticated, semantic searches to adjust price range, provide recommendations, compare products of interest, display reviews, answer questions and manage choices.

## Concept in Action: Real-Life Showcases

Meet Sarah, a fashion-savvy shopper in search of a red jacket that fits her specific criteria - a price range of 100 USD and a preference for two particular brands. Sarah also specifies her desired shipping location, ensuring convenience. An AI powered search platform processes Sarah's inputs and provides a curated selection of red jackets that meet all her preferences, and also considers current trends, weather conditions, the usual designs Sarah buys or puts in her favorites and much more. In addition to displaying available options, the platform offers valuable suggestions by informing Sarah that by slightly increasing her budget to 110 USD, she can access a broader range of jackets from one of her preferred brands.

**Hyper personalization with AI can adapt to behavioral patterns** like weekly and monthly purchases, provide alerts on offers for recently searched items or adjust product catalogs based on browsing history.

## Concept in Action: Real-Life Showcases

John, an avid online shopper, frequently makes weekly and monthly purchases, often checking out similar items across various platforms. With the power of AI-driven hyper-personalization, John's shopping experience is elevated. The platform observes his behavioral patterns, recognizes his purchase trends and

understands the types of products he frequently buys. As a result, it intelligently alerts John about special offers or discounts on recently checked items, helping him decide. Additionally, the platform adjusts the product listings, prioritizing and showcasing those that align with John's frequent browsing history. For example, if John recently started exploring running shoes, the platform highlights the latest running shoe models, promotions, and personalized recommendations based on his preferences and recent shopping patterns.

**Visual search** allows users to use images to quickly find similar items available for purchase within an app's inventory. In addition, AI algorithms can use images as a trigger to offer personalization.

## Concept in Action: Real-Life Showcases

Emily is on a shopping expedition with a friend, Sarah, wearing a unique and stylish jacket that catches her attention. Emily takes out her smartphone, opens her favorite eCommerce mobile app, and utilizes its integrated Visual Search feature. She captures a photo of Sarah's jacket using her phone's camera. The Visual Search technology analyzes the image, recognizing the design, color, and style elements and compares this information with the app's inventory. Within seconds, the app provides Emily with a list of similar jackets available for purchase. She can browse the options, view details, compare prices, and even read customer reviews.

Infosys Topaz, an AI-first suite of services, solutions and platforms, is designed to help enterprises accelerate growth, unlock efficiencies at scale and build connected ecosystems. It has already helped several organizations execute their AI strategy.





## 2. Impact of AI on Sales Agent Interface Channels

AI can significantly enhance sales agent interfaces by providing intelligent automation, data-driven insights, and personalized support. Here are a few ways AI can help:

**AI on Analytics** can generate live dashboards with information on customers and products of interest that can boost a sales agent's efforts in the right direction.

### Concept in Action: Real-Life Showcases

John, a sales agent at a sports brand retailer's showroom, attends to Sarah, who is interested in purchasing sports shoes but has specific preferences and requirements. John uses an AI-powered sales agent interface to access real-time analytics data and live dashboards tailored to Sarah. An AI-powered interface uses its enriched customer and product data to develop a set of recommendations. These recommendations are ordered based on the highest probability of purchase from Sarah. John also showcases the live dashboards to support sales further and visually demonstrates the recommended products' popularity and positive customer reviews.

**Real-time product bundling and pricing** enables hyper personalized offers for products of interest, cross-selling and upselling.

### Concept in Action: Real-Life Showcases

Emily is searching for the perfect electronics bundle comprising a laptop, wireless mouse and a laptop bag to meet her specific needs. Fortunately, the online store she is browsing has an AI-powered recommendation system. As Emily provides detailed prompts and preferences, such as the desired laptop specifications, preferred mouse brand, and her budget, the system dynamically generates a real-time product bundle on the fly. The system instantly creates a customized bundle for Emily, including a laptop from her preferred brand, a compatible wireless mouse, and a stylish laptop bag. It also calculates the bundled pricing based on the individual product prices and any applicable discounts. This real-time product bundling capability proves to be a game changer for Emily as it saves her the hassle of searching and purchasing each item separately.

**Sentiment, loyalty and behavioral pattern analysis** can intelligently guide discussions for enhanced sales.

### Concept in Action: Real-Life Showcases

Alice, a sales representative, is discussing smartphone preferences with John, a customer. Alice uses AI to understand John's needs better and adapt the discussion by analyzing various factors, such as John's voice characteristics and browsing history, including previous brand switches, brand loyalty information and past purchase behavior. Based on insights from this comprehensive analysis, the AI system provides personalized recommendations that align with John's preferences, ensuring a tailored sales experience. For example, the AI system suggests a smartphone brand that John previously expressed interest in, as analyzed by changes in voice modulation and demonstrates how it offers features that meet his specific requirements. Based on sentiment analysis captured in real-time, it further adapts and highlights additional points, such as special offers or loyalty rewards, that could enhance the sales conversation.

**Competitor product/pricing based real-time product/pricing strategy** is a revolutionary concept that taps into competition data in real-time to nudge the consumer to make a decision.

### Concept in Action: Real-Life Showcases

John, a sales agent representing a packaged beverages manufacturer, visits a retailer to gather information about potential bulk orders. In the past, John filled out a standard form to collect competitor pricing data, which was then incorporated into the company's pricing strategy. However, as John enters the competitor data into the system today, AI algorithms analyze it in real-time to generate tailored pricing for the packaged beverages, providing the retailer with enticing offers to encourage larger purchases and ultimately boost profits. This seamless integration of AI enables the customer to enjoy lower prices while empowering the beverage company to swiftly counter competition, increase sales, and secure better royalty rates from the retailer.

### 3. Impact of AI on Commerce Backend Systems

AI empowers backend commerce systems with advanced analytics, automation, and intelligent decision-making capabilities, improving operational efficiency, better customer experiences, and increased profitability.

**Supply chain optimization, demand forecasting and inventory optimization** are all critical aspects of a business and can receive a significant uplift with AI tools.

#### Concept in Action: Real-Life Showcases

Sarah, a supply chain manager for an e-commerce company, utilizes AI-powered tools in the logistics area to streamline operations across multiple warehouses. She uses AI capabilities to analyze historical sales data, market trends, and customer behavior to forecast demand accurately. This enables her to proactively adjust inventory levels and ensure the right products are stocked in each warehouse. Additionally, AI helps Sarah optimize the routing and allocation of shipments, considering factors like delivery time, cost, and customer preferences. As a result, the AI-powered logistics system suggests the most efficient routes and allocation strategies, minimizing transportation costs and improving overall delivery performance. AI tools result in improved inventory turnover, reduced stockouts, and enhanced customer satisfaction, ultimately driving business growth and success in the e-commerce industry.

**AI-generated hyper personalized marketing content** can be used to engage more effectively with customers across email, website and social media.

#### Concept in Action: Real-Life Showcases

Sarah, a marketing manager for TrendyWear, uses AI technology to generate hyper-personalized marketing content for customers. Utilizing AI algorithms, Sarah's team analyzes customer data, including purchase history, browsing behavior, and demographic information, to develop insights to generate customized marketing content. For example, a customer named Emily, who frequently purchases women's clothing and accessories, receives an email featuring personalized product recommendations based on her past purchases and browsing history. In addition, the email showcases new arrivals and special offers that align with Emily's style preferences. In addition to email marketing, AI also assists Sarah in creating engaging social media content. The AI-powered system analyzes trending topics, customer engagement patterns, and social media data to generate optimized posts for platforms like Instagram and Facebook.

**AI-generated hyper personalized post purchase messages** help build loyalty and avoid buyer dissatisfaction by engaging with them in a personalized manner.

#### Concept in Action: Real-Life Showcases

Emma recently shopped at an online fashion retailer. Emma receives a tailored post-purchase message from the retailer generated by AI, acknowledging her recent purchase and expressing gratitude for them. It also includes personalized recommendations for complementary products based on Emma's previous purchases and browsing history. This personalized recommendation enhances



Emma's shopping experience and encourages her to explore additional items from the retailer. Furthermore, the AI-generated message includes a special loyalty discount or exclusive offer as a token of appreciation for Emma's continued support. It also shares trend reports to help her understand that she made the best choice.

**Understanding the customer by analyzing transaction records and optimizing commerce channels** can help businesses identify the channels (such as e-commerce websites, mobile apps, or social media platforms) customers prefer for different purchases and provide a seamless and personalized shopping experience.

### Concept in Action: Real-Life Showcases

an AI-powered system identifies that users frequently watch action movies and TV shows on the platform. Based on this information, it optimizes its commerce channels by prominently featuring new action releases, creating personalized recommendations, and sending targeted marketing campaigns to this specific customer segment.

**Automated management of hyper personalized notifications** to individual users based on preferences, buying history, and other customer records. For example, some companies already use Deep Fake capabilities to have celebrities deliver personalized messages to assist in a commerce transaction by directing customers to a conveniently located store.

### Concept in Action: Real-Life Showcases

Using AI algorithms, an eCommerce player analyzes each user's buying history, browsing behavior, and other relevant customer records. Based on these insights, the AI system can identify if a user frequently purchases sports equipment and can send notifications about new product releases, special discounts, or related items that align with their interests. Furthermore, the AI system considers the purpose behind the user's buying history. For example, if a user frequently purchases gifts for others, the system can send timely notifications for upcoming occasions or suggest popular gift items based on the recipient's preferences. This level of hyper-personalization ensures that users receive notifications that cater to their unique needs and buying habits. In addition, AI systems can send out personalized messages in the channel of their choice, including social media channels such as WhatsApp and Messenger.

**Secure commerce with AI** gives more confidence to end customers by preventing fraud. All commerce implementations will now integrate with fraud detection and fraud prevention services.

### Concept in Action: Real-Life Showcases

When a customer makes a high-value purchase, the online marketplace's AI system quickly analyzes factors such as transaction history, payment details, and user behavior. The system immediately gives personalized alerts for customer verification if any suspicious activity is detected, such as an unusually huge transaction from a new device. This real-time risk assessment, suited for individual customers, ensures a secure commerce environment, giving customers confidence in the platform's fraud prevention measures and building brand confidence.



## Conclusion

AI-powered hyper personalization is revolutionizing customer experiences by creating tailored and engaging interactions. It enhances customer satisfaction, drives loyalty, and boosts business growth. However, maintaining privacy and ethical practices is crucial. As AI evolves, the potential for even more sophisticated personalization is immense. Embracing AI and creating a lasting impact on customers through hyper personalized experiences is now necessary for businesses to thrive in a competitive landscape.

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Infosys Topaz is an AI-first set of services, solutions and platforms using generative AI technologies. It amplifies the potential of humans, enterprises and communities to create value. With 12,000+ AI use cases, 150+ pre-trained AI models, 10+ AI platforms steered by AI-first specialists and data strategists, and a 'responsible by design' approach, Infosys Topaz helps enterprises accelerate growth, unlock efficiencies at scale and build connected ecosystems.

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