

The luxury retail industry stands at the forefront of a digital transformation.

As part of the Future of Luxury Retail series, presented by Verizon Business, we've embarked on a comprehensive exploration of the technological advancements revolutionising luxury retail.

In this report, we'll unpack how technological innovations, from augmented reality (AR) to artificial intelligence (AI), are impacting this industry. We'll also examine how private networks provide the backbone for this technological revolution, facilitating seamless connectivity and enabling immersive experiences.

Read on to discover how luxury retail is transitioning towards an end-to-end industry.

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At Verizon Business, James
Hughes is delivering and
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– spanning from retail operations,
supply chain transparency and
productivity to web3, future of
loyalty and immersive engagement
and experiences.



1. The rise of digital technology in luxury retail.

Luxury retail is undergoing a profound transformation.

For this industry, eye-catching window displays and white-glove customer service were once primary drivers of success. Today, technology tends to lead our shopping experiences. Most of us buy things online,¹ at least some of the time. We all expect the kind of personalisation (recommendations, etc.) that algorithms provide us. And we usually research purchases online² before we ever visit a storefront.

Given the ease of shopping online with a few taps on our mobile, foot traffic is difficult to capture. When we do go to stores in real life, we are increasingly going for an experience we can't find online. The challenge for luxury retailers is: how can you turn your storefronts into an experience?

One of the most notable trends in luxury retail is the rise of augmented reality (AR) technology. Once relegated to the realm of science fiction – including <u>Star Trek</u> and <u>Ready Player One</u> – AR has become a very real, very useful tool for luxury brands that seek to engage consumers in immersive and interactive ways.



Four ways AR is enhancing the luxury retail shopping experience.

1. Virtual Try-Ons:

By superimposing digital images of products onto the customer's image in real-time, AR mirrors or screens enable customers to see how items look on them before making a purchase. This is a win for convenience. But it also reduces the need for physical inventory and dressing rooms, particularly in high-end boutiques where space is limited.

2. Interactive Displays and Visual Merchandising:

Luxury retail stores can use AR technology to create interactive displays and visual merchandising experiences that captivate customers and drive engagement. For example, AR-enabled displays can provide additional information about products, showcase behind-the-scenes footage of the design process, or offer virtual tours of manufacturing facilities.

3. Personalised Recommendations:

AR-powered recommendation engines can analyse customer preferences and behaviour to provide personalised product recommendations in real-time. For example, as customers browse through a store, AR displays or mobile apps can suggest complementary items based on their past purchases, style preferences, or browsing history. This level of personalisation enhances the shopping experience by presenting customers with products relevant to their interests. It also increases the likelihood³ of conversion.

4. Brand Storytelling, Experiential Marketing:

AR experiences can be used to tell the story behind a luxury brand and its products in a more immersive and engaging way. For example, luxury retailers can create AR-enabled experiences that take customers on virtual tours of historical landmarks associated with the brand, showcase the craftsmanship and heritage behind iconic products, or provide interactive tutorials on how to style or care for luxury items.

[†]Topic: E-commerce worldwide. (2024, February 15). Statista. https://www.statista.com/topics/871/online-shopping/#topicOverview

Ellett, J. (2018, February 8). New research shows growing impact of online research on In-Store purchases. Forbes. https://www.forbes.com/sites/johnellett/2018/02/08/new-research-shows-growing-impact-of-online-research-on-in-store-purchases/?sh=6d1bd5ff16a0

³The ROI on AR: How augmented Reality is boosting ecommerce sales. (2022, April 29). Shopify. https://www.shopify.com/uk/blog/ar-shopping

Matthew Drinkwater, head of the Fashion Innovation Agency, underscores the transformative potential of AR in revolutionising the way consumers interact with luxury brands.

"AR not only enhances the shopping experience but also fosters a deeper emotional connection between consumers and brands," says Matthew. "By allowing consumers to visualise products in real-world settings, AR brings a level of interactivity and immersion that was previously unimaginable."

Al-driven personalisation is another key trend in luxury retail, with brands leveraging data analytics and machine learning algorithms to tailor recommendations to individual preferences. By analysing past purchase behaviour and browsing history, luxury brands can create highly targeted marketing campaigns and product recommendations that powerfully resonate with consumers.

But the evolution of luxury retail goes beyond individual technologies. This is a fundamental shift in the way brands engage with consumers, and digital technology at large is the catalyst.

"There's virtually no big flagship now that doesn't consider putting a coffee shop in, or a meeting area," says <u>Howard Saunders.</u> "It's a chill out space. It's a space where you're supposed to feel relaxed amongst technology... ultimately, they don't care where you get the product from. Whether online or off."



Six technologies in-play in luxury retail.

1. Interactive Displays and Smart Mirrors:

Interactive displays and smart mirrors are an exciting part of the technological revolution in luxury retail. These interactive interfaces allow customers to explore products in a dynamic and engaging manner.

For example, customers can use touchscreen displays to browse through collections, view product details and access additional information such as available sizes and colours. Smart mirrors equipped with augmented reality (AR) technology enable customers to virtually try on clothing and accessories without physically changing garments, offering a convenient and immersive shopping experience.

2. RFID Technology:

Radio-frequency identification (RFID) technology is revolutionising inventory management the in-store experience. RFID tags embedded in products enable retailers to track merchandise in real-time, ensuring accurate stock levels and facilitating efficient restocking processes. Additionally, RFID-enabled systems can provide customers with valuable information, such as product origins, materials used and care instructions, enhancing transparency and trust. Moreover, RFID technology can be integrated into interactive displays, allowing customers to access detailed product information by simply scanning items with their smartphones.

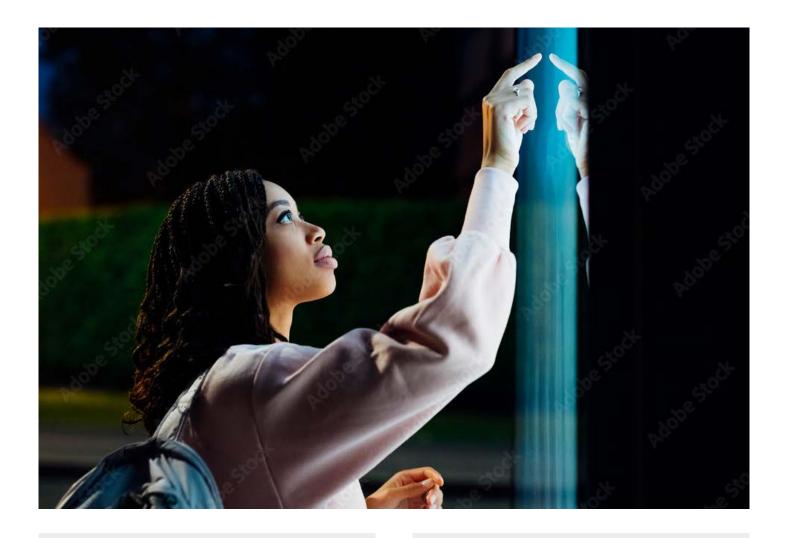
3. Beacon Technology:

Beacon technology casts beams of Bluetooth low-energy (BLE) signals to detect the presence of customers within a physical store and deliver personalised messages or offers directly to their smartphones. Luxury retailers can strategically deploy beacon devices throughout their stores to enhance the shopping experience and engage customers in real-time.

For example, when a registered customer enters the store, beacons can trigger personalised welcome messages or exclusive discounts tailored to their preferences and purchase history. These sorts of communications establish a sense of recognition and appreciation between the brand and the shopper.

"There's virtually no big flagship now that doesn't consider putting a coffee shop in, or a meeting area."

- Howard Saunders



4. Virtual Reality (VR) and Augmented Reality (AR):

VR and AR are already transforming the way customers interact with luxury products in-store. VR headsets allow customers to immerse themselves in virtual environments, in which they can explore product collections, experience simulated brand events and even participate in virtual retail shows.

AR applications, on the other hand, overlay digital information and virtual elements onto the physical world, enabling customers to visualise how products would look in real-world settings. For example, customers can use AR-enabled devices to see how furniture pieces would fit into their homes or how makeup products would appear on their skin, reassuring consumers, and nudging purchase decisions along.

5. Mobile Point-of-Sale (mPOS) Systems:

Mobile point-of-sale (mPOS) systems enable sales associates to access customer profiles, purchase history and product recommendations on the go, facilitating personalised interactions. This empowers luxury retailers to streamline checkout processes and enhance customer service in-store.

Equipped with tablets or smartphones, sales associates can assist customers anywhere in the store, eliminating the need for traditional cash registers and checkout counters.

This flexibility allows for a more personalised and efficient shopping experience, as customers can complete transactions seamlessly without waiting in long queues. Additionally, mPOS systems enable sales associates to access customer profiles, purchase history, and product recommendations on the go, facilitating personalised interactions.

6. Artificial intelligence and machine learning:

Machine learning algorithms analyse customer behaviour and preferences to anticipate their needs and tailor product offerings (respectively), creating a hyper-personalised shopping experience that resonates with individual tastes and desires.

Algorithms also empower luxury retailers to analyse vast amounts of customer data and derive actionable insights that allow personalised experiences. Al-powered chatbots and virtual assistants provide customers with instant support, personalised recommendations and concierge services.

Both AI and machine learning require cloud computing to function and a Private Network can provide the higher bandwidth required.

2. Omnichannel: bridging the gap between online and offline shopping.

In today's evolving luxury retail landscape, the distinction between online and offline shopping experiences is increasingly blurry. But this is by design.

"We're seeing an acceleration in the convergence of physical and digital commerce, and that's creating so many opportunities for innovation and complete reinvention," says Natalie.

Part of the reason for this shift is that consumers no longer view shopping channels in silo. Shoppers expect a seamless and integrated experience across all touchpoints with a brand.



The rise of e-commerce has changed how we shop (total e-commerce sales reached 5.7 trillion dollars in 2023).⁴ With the click of a button, we can browse a vast array of products, compare prices and make purchases from the comfort of our homes.

This shift towards online shopping has had significant implications for brick-and-mortar retailers, who have been forced to adapt to our changing consumer preferences or risk becoming obsolete.

Burberry has lent their digital presence a human touch – by offering 24/7 support via chat online.⁵ Zara has begun adding RFID tags to track its inventory in-store.⁶ But a full 70% of luxury fashion brands now provide real-time inventory visibility. And 93% host multiple customer service channels.⁷

By embracing omnichannel retailing, retailers can unlock a host of benefits, both for themselves and for their customers. For retailers, omnichannel integration can lead to increased sales, improved customer loyalty and greater operational efficiency.⁸ For customers, it means more convenient, more personalised shopping.

3. Sustainability and ethical innovation in luxury retail.

Sustainability has become a key differentiator for luxury brands seeking to align with consumer values.

Dr. Helen Crowley, a sustainability expert, underscores the importance of transparency and traceability in the supply chain, urging luxury brands to embrace sustainable practices.

One example of the intersection of digital technology and sustainability is the introduction of blockchain technology. This (mostly) tamper-proof electronic ledger is revolutionising supply chain management, enabling greater transparency and accountability throughout the production process. In terms of tracking supply chains, blockchain is at its best when deployed in tandem with other technologies.

The Internet of Things (IoT), for example, refers to the network of interconnected devices, objects and sensors that can communicate and exchange data over the web. These devices range from everyday objects, such as household appliances and wearable gadgets, to industrial machinery and smart infrastructure.

Combining IoT with blockchain streamlines supply chain management. IoT sensors track parameters, such as location and condition, and then blockchain ensures tamper-proof recording of this data. Luxury brands can embed sensors into their wares and then use blockchain to record that real-time data securely.



⁴Global retail e-commerce sales 2014-2027 | Statista. (2024, February 6). Statista. https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/

⁵The new dynamics of omnichannel and the impact on luxury brands | OMD. (2019, August 28). OMD. https://www.omd.com/thoughts/the-new-dynamics-of-omnichannel-and-the-impact-on-luxury-brands/

⁶Launchmetrics. (2022, April 1). RFID technology: 5 Ways fashion Brands are using it - LaunchMetrics. https://www.launchmetrics.com/resources/blog/rfid-technology-5-ways-fashion-brands-are-using-it

⁷Statista. (2022, December 19). Omnichannel features adopted by luxury brands 2022. https://www.statista.com/statistics/1323058/luxury-brands-omnichannel-adoption/

⁸Briedis, H., Gregg, B., Heidenreich, K., & Liu, W. W. (2021, April 30). Omnichannel: The path to value. McKinsey & Company. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-survival-guide-to-omnichannel-and-the-path-to-value

Five ways that technology – powered by private networks – allows companies to meet sustainability goals.

1. Traceability:

Blockchain allows for the creation of a transparent and immutable record of every transaction or event that occurs along the supply chain.

2. Real-Time Visibility:

By combining IoT and other technologies, powered by a Private Network, all parties involved in the supply chain – including suppliers, manufacturers, distributors and retailers – can access a shared, real-time view of the entire supply chain.

3. Ethical Sourcing & Certifications:

By providing a digital trail of custody, blockchain enables consumers to trace the origin of products to ensure ethical sourcing.

4. Environmental Impact Tracking:

Blockchain and IoT (via an RFID tag, for example) can track the environmental impact of products throughout their lifecycle, from production to disposal.

5. Authentication and Anti-Counterfeiting:

In addition to ensuring ethical sourcing and sustainability, blockchain technology, in tandem with IoT (including RFID tags), can help combat counterfeiting and fraud in the luxury retail industry.

Today's consumers are more informed, discerning and socially conscious than ever before, and they are increasingly demanding transparency and accountability from the brands they support. As a result, luxury retailers are being forced to re-evaluate their business practices and embrace more sustainable methods (most often, powered by digital technology).

One of the key areas of focus for luxury retailers is reducing their environmental footprint and minimising their impact on the planet.

"Whether it's a luxury handbag or whether it's a car or whether it's a Mars Bar, for most products, the real footprint – a lot of the negative impact – happens at the raw material, the choice of material you use, the choice of cocoa, the choice of cashmere, how that is raised or grown, and how it is collected," says Dr. Crowley.

Considering these facts, some luxury fashion brands have implemented new designs that rely on recycled materials (Emporio Armani⁹ has added recycled materials and regenerated leather fibre into its collections, for example). Others are investing in innovative technologies, such as 3-D printing and digital manufacturing, to reduce waste and streamline production processes.

"Luxury stands for high quality. It stands for long longevity – and so does nature. In fact, the value proposition of luxury is very closely aligned to what we are trying to do in sustainability. Beautiful materials, beautifully made clothes...[and] supporting craftsmanship and responsible, artful production and manufacture," says Dr. Crowley.



⁹Thomas, D. (2022, February 20). Inside the luxury fashion industry's big sustainability push. British Vogue. https://www.vogue.co.uk/fashion/article/fashion-industry-sustainability

4. The role of connectivity in the future of luxury retail.

Personalisation, white-glove service, traceability – and everything we've discussed – is all dependent on gathering accurate and near real-time data from consumers. For luxury brands to be able to make the data work to improve experiences, these brands need to also be able to access secure data bases in the cloud.

In today's rapidly evolving retail landscape, technology is playing an important role: enhancing the shopping experience for consumers and optimising operations. From interactive displays and digital signage to mobile point-of-sale systems and inventory management solutions, retailers are leveraging a wide array of technology solutions to attract customers and drive sales.



Four reasons luxury retailers are turning to private networks.

1. Improved Coverage, Capacity:

Private networks provide greater coverage and capacity than Wi-Fi, allowing retailers to support a higher density of devices and applications within the store. This is particularly important in large retail environments where hundreds or even thousands of devices may be connected simultaneously.

2. Low Latency, High Performance:

Private networks offer lower latency and higher performance than Wi-Fi, ensuring a seamless and responsive user experience for customers and staff. This is critical for real-time applications such as mobile point-of-sale systems, interactive displays and virtual try-on experiences.

3. Enhanced Security, Privacy:

Private networks offer enhanced security and privacy features compared to public Wi-Fi networks, making them better suited for handling sensitive customer data and transactional information. With built-in encryption, authentication and access control mechanisms, private networks provide a secure and trusted environment for conducting business-critical operations.

4. Network Slicing and QoS Prioritisation:

Private networks support network slicing and quality of service (QoS) prioritization, allowing retailers to allocate resources dynamically based on the specific needs of different applications and services. This ensures that mission-critical applications, such as point-of-sale systems and inventory management solutions, receive the necessary bandwidth and priority to function optimally.

Private networks are empowering retailers to deploy a wide range of technology-driven initiatives that enhance the shopping experience, drive business results and differentiate their brand in the marketplace. By providing reliable, secure and high-performance connectivity throughout the store, private networks enable retailers to leverage cutting-edge technologies such as AR, VR, IoT, AI and robotics to create immersive, personalised and seamless experiences for customers and staff alike.

As the retail landscape continues to evolve, private networks, informed by data, will play an increasingly important role in enabling innovation and driving success in retail storefronts.

5. Divining the future of luxury retail.

By leveraging technologies like artificial intelligence and machine learning, luxury fashion brands can also optimise their production processes, minimise waste and enhance transparency across the supply chain. This not only reduces the environmental footprint but also addresses consumer concerns regarding ethical sourcing and manufacturing practices. Furthermore, advancements in material science enable the creation of sustainable alternatives to traditional fabrics, offering luxury designers the opportunity to craft exquisite pieces without compromising on quality or aesthetic appeal.

Whether through the development of bio-fabricated textiles or simply using recycled material, luxury is heading towards sustainability.

Digital platforms and immersive technologies also empower luxury brands to engage with consumers in more meaningful ways, fostering a sense of connection and authenticity. Virtual try-on experiences, augmented reality showcases, and virtual showrooms all provide the sort of dazzling experiences consumers increasingly crave.

In summary, technology is revolutionising luxury fashion. By embracing innovation and harnessing the power of technology, luxury brands can meet the demands of their audience and drive positive change for the industry.

Learn more about how Verizon can help you explore and adopt the technology that's reinventing retail at verizon.com/gb/retail

