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Turning Retail
ON ITS FACE

Unlocking retail efficiency with the rise of facial biometrics.

Ordering your favorite meal at a fast food restaurant could soon be as effortless as unlocking your phone. With a quick scan of your face, you can skip the lines and get straight to enjoying your meal. This exciting new reality is powered by facial biometrics, a technology that's set to transform the shopping experience. From speeding up checkouts to boosting customer loyalty, facial biometrics offers a world of possibilities for both consumers and retailers.

This article explores how facial biometrics is changing the game for retailers, with real-world examples from brands like Steak n' Shake, Sam's Club and Amazon Go, and delves into the benefits, challenges and future implications of this cutting-edge technology.
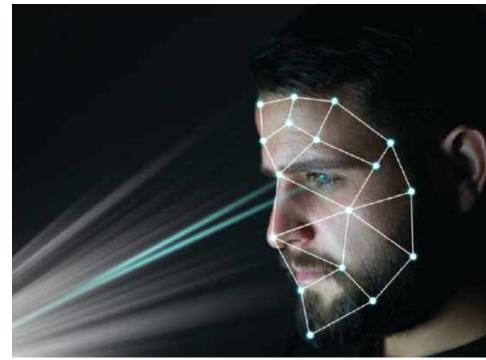
THE MAGIC BEHIND FACIAL BIOMETRICS

Facial biometrics technology uses artificial intelligence (AI) to recognize and verify individuals based on their facial features. Here's how it works: an image of your face is captured once the customer opts in, the image is then converted into a digital template, and then it is matched against a stored database to confirm your identity. This tech is now being integrated into self-checkout systems, allowing customers to pay quickly and securely without the need for cards or cash.

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What's really impressive is how accurate and fast these AI-driven facial recognition algorithms have become. They can process huge amounts of data in real-time, making the checkout process both quick and reliable. Plus, thanks to advances in machine learning, these systems can work well in various lighting conditions and from different angles, making them even more effective in busy retail environments.

REAL-WORLD EXAMPLES & BENEFITS

Several big-name brands are already using facial biometrics to improve their operations and customer experience. Take Steak n' Shake, for example. They recently rolled out a biometric check-in and checkout system across all of their 300-plus locations in the U.S. This system allows customers to easily review their favorite orders and track loyalty points while also freeing up staff time and cutting down payment processing costs.

Sam's Club has seen a 50% increase in the adoption rate of its Scan & Go mobile checkout system over the past 3 years. This system, which uses facial biometrics, lets customers use their smartphones to scan items and pay, skipping the traditional checkout lines entirely. The

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convenience and speed of this process have made it a hit with customers.

Amazon Go has taken the concept of a frictionless check-out experience to the next level with its Just Walk Out technology. By combining facial recognition with computer vision and sensor fusion, Amazon Go stores let customers simply pick up items and leave, with their accounts automatically charged for the purchases. This not only reduces wait times but also minimizes the need for human staff, leading to significant operational efficiencies.

BOOSTING THE CUSTOMER EXPERIENCE

Facial biometrics can make shopping much smoother. According to an eMarketer article, as many as 82% of consumers will avoid a business because of long lines. Biometric solutions can dramatically cut down on wait times, improving the overall shopping experience.

This technology also allows for personalized interactions and better loyalty programs. For instance, the facial biometric system at Steak n' Shake integrates with the loyalty program and lets customers easily access their favorite orders and track loyalty points, making dining more convenient and rewarding without the added friction of the traditional log-in process. This level of personalization can build stronger customer loyalty and encourage repeat visits.

However, while facial biometrics can reduce friction, it also means less human interaction during transactions. Some customers might miss the personal touch that human staff provide, which can affect their loyalty. Retailers will need to find the right balance between using technology to improve efficiency and maintaining a human connection to ensure a positive customer experience.

TACKLING PRIVACY & SECURITY CONCERNS

With the rise of facial biometrics, there are important questions about privacy and se-curity. Consumers are increasingly aware of how their personal data is used and stored, and any misuse can lead to significant trust issues. Ensuring robust data protection measures is crucial for the success of biometric systems.

Amazon's Just Walk Out technology faced a lawsuit last September under the Biometric Information Privacy Act (BIPA) for allegedly failing to get consent before collecting customers' biometrics. This incident highlights the need for clear communication and strict compliance with privacy regulations to build consumer trust.

There have also been instances where the use of biometrics wasn't transparently disclosed to customers. At the University of Waterloo in Canada, students discovered that vending machines were using facial analysis to track the gender and age of customers and passersby without their knowledge. This lack of transparency led to the removal of the vending machines, underscoring the importance of informing consumers about biometric systems and their purposes.

THE FUTURE OF FACIAL BIOMETRICS IN RETAIL

As facial biometrics technology continues to evolve, its applications in retail will likely expand. Retailers are expected to invest in more advanced systems that offer even greater accuracy, speed, and integration capabilities. Advances in AI and machine learning will further enhance these systems, allowing them to adapt to various conditions and customer behaviors.

The future of facial biometrics in retail will also hinge on addressing consumer concerns about privacy and data security. Retailers must prioritize transparency and ensure that customers are fully informed about how their biometric data is used and protected. Building trust through robust security measures and compliance with regulations will be essential for the widespread acceptance of biometric systems.

Additionally, the impact of automation and AI-enabled robotics on the workforce is a key consideration. While these technologies can enhance efficiency and reduce costs, they also raise questions about the potential displacement of human workers. Retailers will need to find a balanced approach that leverages technology while supporting their employees.

Facial biometrics is more than just a tech upgrade; it's transforming how we shop. As this technology becomes more widespread, we could see a shift toward a more efficient, per-sonalized and seamless retail experience. However, there are challenges ahead, particularly around privacy, security and keeping a human touch in customer service.

Success in using facial biometrics will depend on earning consumers' trust and ensuring the technology enhances, rather than detracts from, the shopping experience. As retailers keep innovating, the potential for facial biometrics to reshape retail is huge — promising a future where convenience and personalization are at the heart of every shopping trip. ∎

Thibaud Denolle moved to Paris in 2013 to join Acrelec, a global technology company focused on reinventing the customer experience for restaurant and retail brands. He was first involved in the design of NGK self-ordering kiosks for McDonald's; he became CEO of Acrelec America in January 2023. Acrelec develops and integrates new platforms for drive-thrus, self-order kiosks, self-checkouts and click-and-collect that increase customer engagement, optimize efficiency and improve operations. Customers include McDonald's and Dunkin'.