

From Barcode to QR:

How Flowcode Is Transforming Retail Experience

FLOWCODE



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Organic traffic is declining, paid ads are noisier, and first-party data is the new currency. Retailers need to convert in-store, on-package, and attention into identified customers and attributable revenue.

At the same time, they need to capture first-party customer data to target, retarget and increase sales conversions. They also must provide critical product information to support supply chain logistics and meet customer requirements.

These efforts must all occur in a tough economic and competitive environment, where retailers and consumers are closely guarding their wallets.

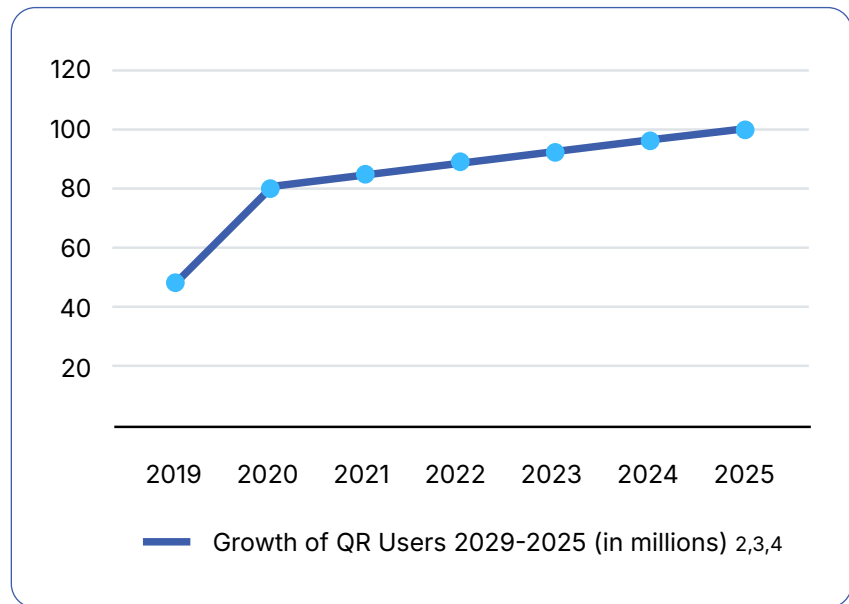
To meet these challenges, retailers are adopting QR codes; however, most of these QR codes are generic or static and lack the capabilities to fully achieve the goals.

To create a dynamic, personalized blend of the physical and digital worlds in a truly omnichannel environment, retailers have discovered Flowcode. This enterprise-grade QR platform connects real-world touchpoints to make it easy to measure performance and capture first-party data.

From basic to interactive: The evolution of barcodes

The Universal Product Code (UPC), the most commonly used barcode in the U.S., is used to speed production and make checkout faster.¹ However, the UPC has only 12 numerical digits, which limits the information it can contain. In contrast, two-dimensional barcodes, such as QR (quick response) codes, are matrices. They can store numeric, alphanumeric, and binary information, such as a product's website URL, product ingredients, expiration date, or sustainability and recall data. This opens more ways for brands to connect with customers.

During the pandemic, retailers quickly began relying on QR codes to manage contactless interactions. "Adoption of QR codes took off, in the U.S. specifically, and stayed as marketers and brands understood how QR codes can add value," explains Ryan Walker, head of demand generation at Flowcode. Advances in mobile technology also made QR codes easier to use, allowing consumers to scan them directly from their devices.



¹Barcode US. (n.d.). History of barcodes. Barcodes US. <https://www.barcode-us.info/history-of-barcodes/>

²Eood, P. (2025, September 14). QR-code scanning on smartphones in 2019 and 2020, along with forecasts through 2025. barkoder. <https://barkoder.com/blog/qr-code-scanning-on-smartphones-in-2019-and-2020-along-with-forecasts-through-2025#:~:text=QR%20Code%20usage%20in%20the,2025:%20100%20million%20users>

³Eood, P. (2025, September 14). QR-code scanning on smartphones in 2019 and 2020, along with forecasts through 2025. barkoder. <https://barkoder.com/blog/qr-code-scanning-on-smartphones-in-2019-and-2020-along-with-forecasts-through-2025#:~:text=QR%20Code%20usage%20in%20the,2025:%20100%20million%20users>

⁴Eood, P. (2025, September 26). 30 shocking QR code statistics you need to know in 2025. barkoder. <https://barkoder.com/blog/30-shocking-qr-code-statistics-you-need-to-know-in-2025>



QR codes are more flexible than traditional barcodes. “QR codes can literally hold 600 times the amount of information as a barcode,” Walker adds. “They open the realm of possibilities to not only track with additional information but also engage people because they can host URLs and links and all different dynamic types of data and experiences.”

As QR codes become increasingly essential, retailers need to be at the forefront of adopting this technology. To ensure retailers don’t get left behind, GS1, a global nonprofit, introduced GS1 Sunrise 2027, an industry initiative that sets the end of 2027 as the deadline for retailers to adopt 2D barcodes at the point-of-sale.⁵

GS1 Sunrise 2027 creates significant opportunities to replace barcodes, save packaging space, and improve the customer’s experience—all while capturing more data, Walker says. “GS1 is going to change the game, and the biggest retailers in the world and the biggest brands are already thinking about it and getting prepared.”

As momentum for the change gains ground, it is critical for retailers to understand the opportunities available with QR codes and the advantages of the technology in Flowcode.

⁵GS1 US. (n.d.) Get ready for GS1 Sunrise 2027. GS1 US. <https://www.gs1us.org/industries-and-insights/by-topic/sunrise-2027>

QR Codes on Product Packaging: A Brand's **Most Overlooked** Channel

Retailers spend millions of dollars creating eye-catching designs and sustainable materials for packaging. However, they frequently overlook the marketing advantage of placing a QR code on the package.

“No one was thinking about the consumer experience. No marketers were thinking about how this tool, similar to their website, could help tell the story and engage customers and help drive digital traffic.”

—Ryan Walker

The moment customers use the product is the ideal time to capture their attention and entice them to scan the QR code, Walker says. That's when the packaging becomes powerful. A post-scan experience can take customers to a shoppable mobile page, a loyalty sign-up, a product registration flow, rich educational content or an exclusive brand moment. “When am I more engaged with a brand than when I'm holding a can of that soda in my hand? That's the opportunity to connect and capture their data,” Walker adds. What happens after the scan is where packaging becomes powerful. A post-scan experience can take customers to a shoppable mobile page, a loyalty sign-up, a product registration flow, rich educational content or an exclusive brand moment.



Today's Static QR Codes: Progress, but not **Perfection**

Marketers are starting to understand the utility of QR codes and how to include them creatively to reach customers in the moment. Still, static QR codes fall short in helping retailers and brands address some of the biggest marketing challenges, Walker says. Generic codes stop at the scan, without enhancing the customer experience.

Nate Alf, lead system analyst at Eddie Bauer, agrees, citing two related retail challenges his brand faced that traditional QR technology couldn't solve. The first was a production timeline problem.

"We print product hang tags months before launches, often before we have final destination URLs," he says. "Product pages, campaign landing pages, promotional structures—none of that is finalized when hang tags go into production. With static QR codes, you need the exact URL at print time. That's impossible in our production cycle."

The second challenge was missing opportunities for customer experience.

"Physical hang tags can only show basic information, but customers need so much more."

—Nate Alf

Walker outlines other challenges businesses encounter when using generic QR codes that are not geared for enterprises:

- Codes may not be developed to adhere to the privacy and compliance requirements to keep customers' first-party data secure.
- Generic QR codes may not be designed to do this at the scale needed to generate thousands of codes or to work across multiple teams.



The Flowcode QR Code Difference

Unlike the linear barcode or even generic QR codes, Flowcode is a custom, dynamic QR code that is geared to enterprise-level clients, Walker says. "We are a strategic partner to work closely with these clients, delivering and supporting their needs. That goes way beyond just getting a QR code off of the internet."

Here's how Flowcode is different from a generic or static QR code:

	Generic QR Code	FLOWCODE
Enterprise-ready	Unable to organize workflows, permissions and data across large organizations	Designed for enterprise partners with real-time geo data, pixel conversion, API integration, white label branding + URLs, and team structures
Customizable	Black and white matrices	Custom design, including color, shape, frame, logo and texture. Custom codes can be created to reflect brand identity.
Flexible	Most black and white codes are static and cannot be edited once downloaded	Code destinations are dynamic and can be edited and personalized with conditional routing and can be reprogrammed to change destinations anytime without needing to recreate a new code.
Performance	Unrecognizable branding and lack of incentive leads to slow conversion	Scans at 100 milliseconds. 9% higher scan rate vs. generic QR codes
Data Security/Privacy	Lacking basic compliance standards, putting organizations at risk	Flowcodes meet the highest level of privacy standards, GDPR and CCPA
First-Party Data	No first-party data capture	Individual consumer IDs (FlowID) captured, stitched across scans and devices, and automatically integrated into your CRM/CDP for full-funnel attribution and retargeting.
Analytics/Dashboard	Lacking actionable analytics dashboards	Detailed analytics across campaigns, teams and organizations with geolocation, segmentation and more
Personalization	No capabilities	Conditional routing across variables (such as geo, time, device, etc.)

With these advantages, Flowcode QR codes go beyond providing product information, Walker says. They help retailers address some of their biggest challenges, such as:

Decreased digital traffic. As consumers increasingly rely on AI-powered search functions, retailers are seeing a 15 to 60% decline in organic website traffic. When fewer customers come to the website, it's more difficult to reach them with digital ads, collect first-party data, help them discover new products or services, or build loyalty.

As brands look for new ways to get consumers' attention, they're finding that people value real-world experiences, like watching or playing a sport, having dinner or going shopping.

Flowcode can be integrated into real life and into activities, inspiring interaction wherever consumers are, Walker notes. What's more, when consumers scan a Flowcode QR code, they're signaling an interest. "No one scans a QR code by mistake," he says, which means those consumers may be easier to convert because they have already taken the first step of interacting with the brand.

Limited access to first-party data. Fewer website visitors mean less first-party data, which is essential for

understanding customers and personalizing offers that drive conversions. "Marketing leaders don't know who their consumers are. It's like a black hole for them, and they need to figure it out desperately," Walker says.

As consumers scan Flowcode QR codes, FlowID captures consented, first-party data and connects every scan, device and transaction into one identity. This gives retailers a unified information source for attribution, personalization and measurement. Anonymous interactions are transformed into known, high-value customers, Walker says.

"Brands can take advantage of this. You have the customer with your product in their hand. Now, let's extend that journey. Engage them, learn from them, retarget them and turn that first scan into a long-term relationship. The initial sale is just the start."

Fragmented touchpoints create a disconnected customer experience. As brands interact with customers through different interactions across the ecosystem, a lack of consistency can result in a frustrating customer experience.

Flowcode QR codes help eliminate friction between channels for a seamless transition, Walker says. In retail, for example,

QR codes can give customers instant access to coupons, surveys, reviews and product information. They can convert static material into an interactive experience. "Flowcode is the opportunity to zip all the channels together and understand how they each perform and actually tie together a holistic customer journey across the board," he adds.

The Flowcode QR codes addressed retail challenges that traditional QR codes couldn't solve for Eddie Bauer, Alf says. They created richer online and in-store shopping experiences for customers.

"Now, when customers scan our Flowcodes, they get complete product specifications with multiple image views showing fit from different angles (something impossible to see on a store rack), thousands of customer reviews with detailed fit feedback, real-time inventory across all size ranges and colorways, store availability and more," he says. "If they don't find what they want in-store, they can explore the full size range on their phone, check availability at other locations or order directly for home delivery."

Walker adds that with Flowcode experiences, product packaging becomes an always-on point of engagement. "Scan the can to unlock recipes. Scan the shoe box to register for early drops. Scan the bottle to join the loyalty program. Each scan builds your first-party data and feeds it into your CRM for retargeting."



Driving Results with Flowcode

Alf says that the Flowcode data capabilities transformed how Eddie Bauer approaches physical-to-digital marketing, particularly during the peak selling seasons: "We're now making decisions based on actual customer behavior rather than assumptions." Results include more than 137,000 connections with 77.7% year-over-year growth, significant engagement on credit card applications, and scans of specific product hang tags. "We know exactly which codes perform, where customers drop off and how placements compare. That level of optimization is impossible with basic QR technology," Alf says.



Other success stories include:

- A national beverage brand deployed Flowcode-enabled retail displays to power a national sweepstakes, driving a 51% conversion rate, \$25K in net-new CRM value, and over 200K digital engagements.
- A national retailer used Flowcode on 850K monthly mailers to deliver personalized digital coupons, driving ~140K unique scanners and a ~20% scan-to-action rate.
- A global athletic brand used Flowcode-enabled OOH signage to drive store traffic, with 68% of scanners completing the full user journey and real-time geo insights identifying the highest-performing locations.
- A lifestyle brand used Flowcode to make its CTV campaign shoppable, driving 56K direct interactions and 84% new mobile traffic from viewers who scanned straight from the screen.

Getting Started with Flowcode

For all of the benefits Flowcode offers retailers, Walker said that getting started is straightforward.

“It comes down to being thoughtful with the strategy and knowing where you want to go.”

—Ryan Walker

- Pick an objective for one campaign, use case, touchpoint or asset. Decide where you want to place it and where you want it to go.
- How will you personalize the experience to drive conversion
- How do you intend to use the data you get from Flowcode, such as first-party data for targeting, to understand who your best customers are?
- How will you retarget your high-intent IDs using other channels in your tech stack to boost conversion?

QR codes are no longer just a utility, Walker says. With the increased emphasis on GS1 Sunrise 2027, Flowcode can help brands and retailers shape these initiatives in the years to come.

Alf agrees, adding that the retail landscape demands connected physical and digital moments. “Flowcode provides the technology with data to prove it works. This infrastructure isn’t optional; it’s essential.”



Flowcode

Flowcode helps retailers and consumer brands turn physical touchpoints into connected digital experiences. As QR codes become central to packaging, in-store, and media strategies, Flowcode enables dynamic interactions that drive engagement and capture first-party data.

With real-time updates, contextual personalization, and built-in analytics, Flowcode connects packaging and retail media directly to e-commerce, loyalty, and education. Each scan signals intent, giving brands clearer insight into consumer behavior and performance across channels.

[Learn more](#)

FLOWCODE





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Studio is Informa Tech Target's global content studio offering brands an ROI rich tool kit: Deep industry expertise, first-party audience insights, an editorial approach to brand storytelling, and targeted distribution capabilities. Our trusted in-house content marketers help brands power insights-fueled content programs that nurture prospects and customers from discovery through to purchase, connecting brand to demand.

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