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Unveiling the Next-Gen 2D Barcode: Building the Future of Transparency

Few things have looked the same for 50 years, and barcodes have served businesses well all this time. Now it's time for an upgrade.

BY INC-CUSTOM-STUDIO

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Next year will mark 50 years since the first product barcode was scanned. The simple system of lines, spaces, and numbers has helped track inventory and scan physical product prices. But what if it could do more? The future of commerce demands more consumer connection, and barcodes are about to get extra duties.

At a recent lunch panel in partnership with the barcode standards-setting organization GS1 US, Eric Hagerman, special projects editor, Inc. Business Media, found out what's to come with Carrie Wilkie, SVP, standards and technology at GS1 US; serial entrepreneur Michael Walters, founder and president of business development firm studio503; and Psyche Terry, co-founder and CEO of UI Global Brands and plant-based beauty brand Urban Hydration.

Here are some of the key takeaways from that conversation.

1. QR codes have set the bar.

QR codes are having a moment. Covid changed a lot about the way many businesses functioned. And while, in the case of restaurants, changes like outdoor dining and masked wait staff are mostly relics now, some changes, like accessing menus via QR codes, have remained. Customers have gotten used to the idea of scanning QR codes with their phones to get more information about products–instructions, videos, features, bonuses–but so far, that information

has been disconnected from the supply chain.

GS1 US is a not-for-profit supply chain standards organization best known as a source for UPC barcodes, and it's been working with the retail industry to discover how to pack barcodes with this kind of information. After much collaboration and research, the answer seems to lie in more advanced data carriers.

Standard barcodes can fit only a small number of digits. "You can't put special characters; you can't put letters; you can't put anything else in it," says Wilkie. On the other hand, 2D barcodes, like QR codes, can contain more than 7,000 characters. "You can put a whole lot in a QR code or 2D barcode that you can't put in a standard barcode."

New features will include the ability to show more product detail, certifications, and expiration dates and an ability to geolocate so brands can interact with consumers based on where they're scanning. Plus, this same QR code on product packages will go "beep" at checkout as more retailers upgrade their scanners, effectively merging the UPC's well-known functionality with these extended consumer engagement opportunities.

2. 2D barcodes will be easier to fix.

Traditionally, correcting barcodes has been fraught with problems. Terry recalls a product launch that was delayed because of improper tagging at the warehouse.

"If it's improper, you had to stop everything, and you had to say, 'I'm so sorry. We got the wrong barcode.' And our factory had to send us over a sheet of all these little tiny barcodes to fit, and we had to pay extra labor to go and pull every unit out of the case, out of the set, to redo the barcode–basically take a new piece of paper and put it on top of the old barcode."

Had this been a 2D barcode, it wouldn't have been important because it could have been fixed on the backend. That's one of the key upgrades of the 2D barcode–to be able to make changes and additions from the brand's side, as long as the code contains the correct product identification number in the correct syntax to be read at point of sale (POS).

3. Transparency is a major benefit of 2D barcodes.

2D barcodes can help communicate traceability and sustainability efforts and make compliance data simpler to convey to retailers and consumers.

Walters says brands will be able to "embed some of that technology and some of that information right into the product itself, to give consumers a lot more trust that they can actually even follow and know where your product was sourced–from factory or farm all the way through point of sale . . . This is going to allow quantum functionality to keep up with the growing needs of distribution and supply chain sourcing–everything you need to be prepared for in

omnichannel."

The panelists pointed out that both retailers and consumers would have an easier time finding out about recalls and updated product information (such as when Covid test kit expiration dates were extended) with this added level of communication.

GS1 US helps businesses of all sizes deliver safe, consistent, authentic, and trusted experiences in retail and e-commerce. More than 300,000 businesses in the U.S. power their supply chains with GS1 Standards. Visit the website to learn more.

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