



## QRC: The Evolutionary Bar Code

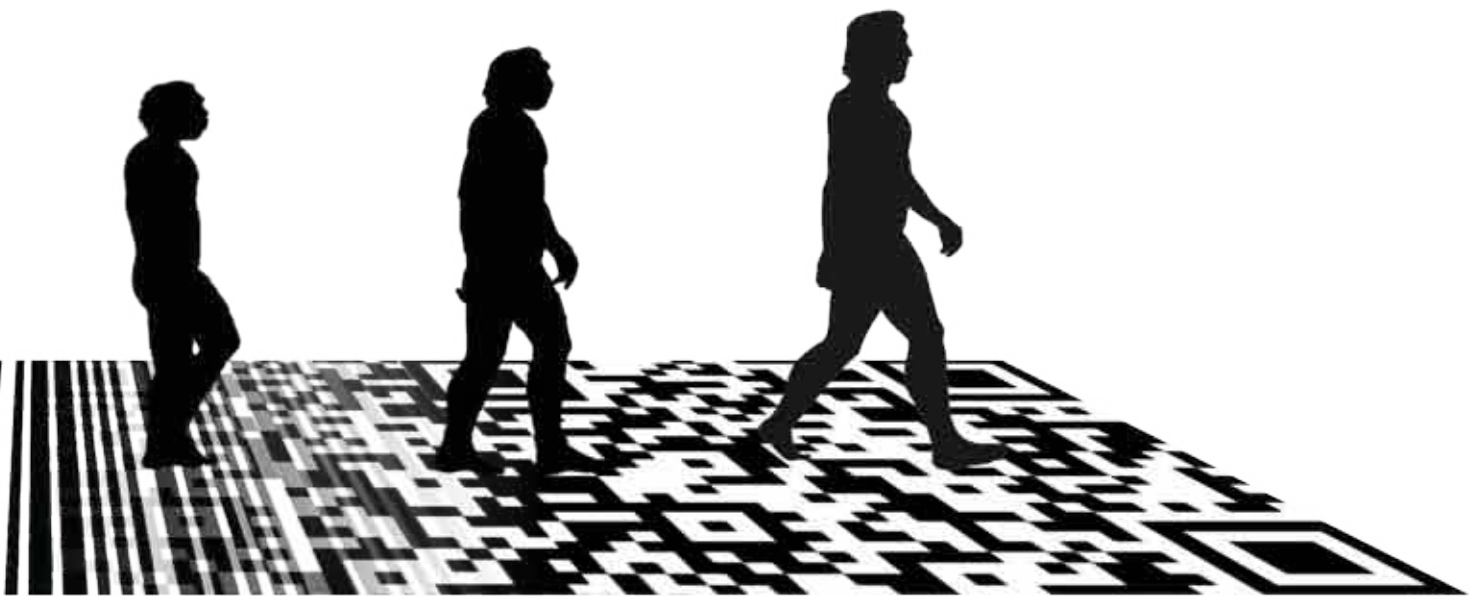
**T**hese are bizarre times for quick response codes (QRCs), those digital pattern blocks found in corners of retail ads resembling ancient Aztec symbols. QRCs are everywhere, but few recognize their use and even fewer recognize their potential to recast the material handling industry's preferred method of scanning and tracking.

Like the more recognizable Universal Product Code (UPC) or bar code, QRCs are scannable images that hold information. Unlike the more recognizable UPC, the information available in a QRC is more robust. With a UPC scanner or smart phone app, users get a 20-digit product ID number. In a larger system network, that number might provide a shipment name, price or some other simple detail. Anyone in the industry will vouch for simple being preferred, but simple UPCs – in comparison to the shifting trend toward heftier quick response codes – also hint at being crude.

QRCs not only store more digits and text than UPCs, but can also store URLs directing users to entirely new destinations.

So far, those destinations have been limited to consumer coupons at Banana Republic or Best Buy (QRCs are used primarily as marketing materials for retail stores), but it wasn't always that way. Developed by the Japanese in 1994, quick response codes were initially used as an advanced way for vehicle manufacturers to track parts. U.S. acceptance in the industry has been slow to develop because doing so would require replacing the UPC barcode scanning systems almost universally. Businesses making the swap would also be tasked with developing a destination for the advanced QRC scans to take users.

What good is sending scanned information to a URL that doesn't exist? Along with the installation costs of an entirely new scanning system and the time it would take to train each supply chain



## From manufacturing tracking, to commercial ads and back again, quick response codes are grasping their full logistical potential

member how to utilize the new technology, the QR code's relative obscurity in the U.S. has also kept it from becoming standardized. With numerous variations on that block-based code, without standardization, multiple QRC scanners are necessary to ensure each code is readable. The laser reading capabilities of normal bar code scanners don't share such a finicky nature, especially considering the heightened risk of damage that accompanies 2-D codes. Dave Gordon, the senior business development manager at DL Label Inc., a company specializing in UPCs, pointed out that whereas QR codes are images that are scanned as an entire entity and can become corrupted if a portion of the code is damaged, traditional barcodes are not quite as fragile. "A 1-D bar code is more forgiving because, as it is read from left to right, even if there is damage to the bar code, all you need to do is re-aim the laser so that it is focused in the area that is not broken."

Many links in the supply chain rely on manually entering information

copied from scanned documents. For the cost of supplying truckers with smart phones or imaging scanners, information has the potential to get entered sooner, more often and with more accuracy, by providing QRCs with embedded URLs on truck bills, then having the drivers scan the code, access the embedded site and enter in a few simple pieces of information onto a proof of delivery. The end result would be a faster information delivery method, with a more trackable timeline of delivery destinations.

Bar codes work. They have for decades and most companies are hard-pressed to fix an unbroken system. But there is efficiency to be gained by the robust, omni-directional quick response codes.

As companies grow in efficiency and the demand for immediate accounting of deliveries tightens, the use of UPCs might prove to be a mud too gummy to escape. The largely untapped QRC resource may have the legs to step out of the ooze. [M](#)