CONNECTED PACKAGING THAT SPEAKS AND SELLS
Connected Packaging
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**PART 1 | PACKAGING MUST ADAPT TO COMPETE**
Highlights the changing nature of consumer product packaging, the trending influence of technology and need for brands to connect with shoppers.

**PART 2 | THE CONNECTED PACKAGE IS HERE**
Introduces connected packaging powered by indiscernible Digimarc Barcodes in collaboration with GS1 US, the barcode standards organization.

**PART 3 | PRODUCT TRANSPARENCY STARTS WITH THE PACKAGE**
Discusses product transparency as a topic, and explains the combination of consumer demand for more information and new regulations.

**PART 4 | LEFT BRAIN, RIGHT BRAIN, RIGHT NOW**
A conversation with industry expert Matthew Okin addresses key considerations for designers as they develop connected packaging.

**PART 5 | MAKING THE CONNECTION**
Culminates the series with practical tips for swiftly and successfully deploying more powerful connected packaging now.
Consumers want more from a brand than a tagline and a list of ingredients. Surveys show that people want insights on health, recipes and environmental impact. With government and industry trade groups pressuring brands to reduce their carbon footprints and offer data on provenance, traceability and more, designers and brand owners face a dilemma. Caught between information demands and limited space, how do they connect with the consumer while flooding the package with data? And can it “communicate” without using any text at all? The answer resides on the package itself.

There’s a revolution on shelf. Meet the connected package. Standard UPC/EAN symbols are being augmented with new barcode technology that’s imperceptible, faster to scan and connects to interactive mobile content. Shoppers can get coupons, videos, ingredients, information about GMOs and more. Messaging can be changed whenever the brand owner wants to respond to market moves. And designers can create packaging without diminishing the aesthetics of the package with ugly scanning symbols.

Leading the change. At the heart of the interactive packaging movement is Digimarc, innovator of the Digimarc Barcode. Says Larry Logan, Digimarc’s chief marketing officer, “Consumer demand and the rapid pace of technology drove the call for accessible product information. In response, we made the package a marketing channel that brands finally have full control over. Now, when consumers walk out of the store, they can have an ongoing relationship with the brand.” The Digimarc Barcode reflects a changing paradigm. Digimarc is collaborating with GS1 US, the organization that maintains global standards for barcodes and serves thousands of brands across the globe. “GS1 led worldwide adoption of the traditional UPC barcode, so it says a lot that they’ve endorsed the Digimarc Barcode as a new means of communicating product information and an approved data carrier for global retail,” says Logan.

This advance helps both national and house brands. Digimarc Barcode occupies zero space on pack. Package designs enhanced with imperceptible codes give consumers access to dozens of data points. And private brands with limited marketing spend can compete like CPGs. Beyond communicating directly with consumers, there are enormous benefits that enhance the in-store experience and make self-checkout simple. Recent demonstrations showed a 30 percent increase in checkout speed when items are marked with Digimarc Barcodes. Says Logan, “This technology not only fosters consumer loyalty, but the increased speed at checkout can save large grocers millions.”

Digimarc Barcode delivers faster checkout, higher retailer margins and new marketing channels—in aisle and at home. This is game changing. So the next time you hear your inner voice say, “Those chips are calling to me…,” they probably are!

Find out more about the Digimarc Barcode at www.digimarc.com
The connected package is here!

Enhanced packages provide consumers with more data and insight, and can improve manufacturing efficiency

The intersection of mobile technology and shopper expectations for information has created the perfect storm, challenging brands and retailers to respond with even richer and more accessible content for consumers. GS1 US, an information standards organization, and Digimarc have collaborated on GS1 US Mobile Scan, a major advance designed to help brands and retailers deliver broad product information straight to consumers.

Customer service
By putting GS1 US Mobile Scan technology in the hands of sales associates, retailers can improve customer service from the ground up. With each scan, employees access a wealth of product attributes and information, and thus are better prepared to assist customers with specific questions and recommendations.

Industrial efficiency
More than a mobile engagement solution, GS1 US Mobile Scan also delivers efficiency gains in manufacturing by improving quality control, inventory management, product tracking and component matching. More quickly and accurately ensuring the correct lid goes on each box (or similar product manufacturing needs), saves time and money that directly boosts the bottom line.

Faster checkout
And, as retailers increase their adoption of enabled point-of-sale scanning systems, GS1 US Mobile Scan will help increase the speed of traditional checkout and improve ease-of-use at self-checkout, a benefit to consumers and retailers alike.

For more information on the new GS1 US Mobile Scan solution, visit: www.gs1us.org/mobilescan

Design flexibility
Because of its largely imperceptible nature, GS1 US Mobile Scan won’t interfere with brand expression. Brands reap the benefits of digital-enabled packaging while retaining a desired look and feel without consuming valuable real estate.

Consumer engagement
Consumers with app-enabled devices have instant access to valid, verified data, as well as contextually relevant information such as recipes, allergens, coupons, promotions and videos. In addition, brand owners can dynamically change product information on the fly, instantly and as often as they like. None of this is possible with a static QR code.

Consumer insights
GS1 US Mobile Scan promotes a direct channel with consumers—one that fosters two-way communication between the individual and the brands they choose to engage with. Consumer Packaged Goods (CPG) brands can now track, monitor, and measure consumer engagement, tastes, preferences and buying patterns.

GS1 US Mobile Scan delivers efficiencies compelling for brands, retailers and consumers including:

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Enabled by Digimarc technology, GS1 US Mobile Scan digitally activates product packaging by applying nearly imperceptible product codes directly into the package artwork. These codes can’t be seen by most shoppers, but can be read by many smart phones and enabled POS scanning systems.

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Product Transparency Starts with the Package

Consumer demand for more information drives significant changes in packaging

There is a “product transparency” movement underway and successful consumer brands need to know why. In simple terms, consumers have a growing appetite for knowledge about the products they buy—prior to the purchase. A new study conducted by the Grocery Manufacturers Association (GMA) makes the case: “Roughly half of Americans surveyed (51%) weigh ‘evolving drivers’ such as health and wellness, safety, social impact, experience and transparency in their purchasing decisions, in addition to the traditional factors of taste, price and convenience.” While some may think that this is a fad driven by millennials, the study shows otherwise. It touches all people, regardless of where they live, their age or income levels. And, consumer inquisitiveness goes far beyond the high-level view of health and safety, and now includes specifics like GMOs, allergens, sustainable packaging and manufacturing provenance.

Product transparency movement spawns SmartLabel™

Reacting to consumer desire for product information and increased pressure from the government for greater product transparency, GMA has launched SmartLabel™, a new program allowing consumers to scan product packaging for information. More than 30 major companies have already committed to the initiative. “Today it’s less about how you design the package and more about how you provide consumers with a digital portal to see what’s inside the box. That includes a wealth of data points like fair trade practices, manufacturing sustainability, gluten content and lots more like recipes and how-to tips,” says Larry Logan, CMO at Digimarc, an innovator with an imperceptible barcode that enables packaging and other media to deliver more digital content than ever.

SmartLabel heralds rise of connected packaging

SmartLabel and many similar product transparency initiatives, such as new food labeling requirements by the U.S. FDA and new GMO legislation, revolve around the idea of “enhanced” packaging. With a majority of shoppers now armed with a smartphone, brands want ways to capitalize on an increasingly inquisitive and connected consumer base that will scan product packaging for more information. Some retail apps already offer barcode and QR code scanning, but the market has been slow to engage with these limited technologies that don’t always deliver a consistent or enjoyable scanning experience.

Fortunately, Digimarc and GS1 US, the barcode standards body, have partnered on a new scanning solution that has SmartLabel advocates taking serious notice.

A new kind of barcode for a new kind of shopper

Powered by Digimarc technology, GS1 US Mobile Scan enhances product packaging by applying imperceptible codes directly into the package graphics. These DWCodes can be read by smartphones and other devices, as well as enabled POS scanning systems. Unlike QR codes which have a fixed output, DWCodes are dynamic, giving brands the ability to deliver different experiences from a single code. This allows brands to future proof their packaging to accommodate new initiatives, like SmartLabel or any government mandates that may emerge, because they can modify the content at any time without printing new packaging. “Brands must have flexibility in today’s consumer environment,” said Logan. “The product transparency movement and initiatives such as SmartLabel highlight the need for a credible solution the whole market can support, and we believe GS1 US Mobile Scan answers that call.”

Learn about GS1 US Mobile Scan: https://www.gs1us.org/dwcode
He has won a host of design awards and captured market share for brands like Dove, Ponds and Trojan, turning sleeper products into star performers. Now after many years of brand creation, Matthew Okin is contributing to one of the biggest transformations in packaging in years—moving beyond simple design that focuses on artistic aesthetic to digitally-enabled ‘connected packaging’ that works harder to communicate with today’s consumer. As the newly named packaging design director for Digimarc, a leader in automatic identification and data capture (AIDC) technologies, he shares his perspective on the future of packaging design and what it means for all stakeholders—designers, brands and retailers.

What factors are driving brands toward connecting packaging?

There are two significant drivers. First, brands today have to think beyond traditional product promotion to create a true customer experience to differentiate themselves. That directly implicates the package and what it says about the brand. Additionally, you have consumers demanding more information about the products they buy, everything from genetically modified organisms (GMOs) and allergens to manufacturing provenance. These two factors are forcing companies to rethink the role of packaging and explore ways to use packaging as a portal for digital information and experiences.

What are the implications of connected packaging for designers?

Regulatory mandates for on-pack information are already taking up a big chunk of available packaging space. Designers don’t have the real estate to communicate extra information to customers, while also creating exciting consumer experiences that tell the brand story. Connected packaging gives designers a chance to bridge a brand’s physical and digital properties. It creates an extraordinary opportunity for designers to drive a more meaningful bond between brand and customer. For instance, when I worked on a popular beauty bar brand, consumers couldn’t find out by just looking at the packaging that the same brand offered a whole family of personal care products, like shampoo, conditioner and body lotions. Today, we can leverage connected packaging to promote a brand’s mission statement and execute more robust campaigns for cross-promotion, which might include coupons, free product trials and other perks that cultivate customer loyalty.

What challenges does connected packaging present for designers?

As a former package designer, I understand the importance of controlling the brand message through visual communication. Anything that stands to impact that visual control is going to be met with some degree of consternation among the design community. However, connected packaging doesn’t detract from the design of the package or the job of the designer. Some people may remember back when designers went from rendering by hand to being issued their first computer. A lot of designers pushed back and resisted the change. That was when the technology was in its infancy. Now designers do everything digitally. I believe it will be the same for connected packaging. Designers will soon embrace a new set of tools that elevate package design to a new level.

What excited you about joining Digimarc?

More than anything, it’s the technology. When people hear ‘connected packaging’ they usually think of barcodes and QR codes, which disrupt the elegance of the package and carry a negative connotation among consumers. When I learned how Digimarc was creating connected packaging imperceptibly, I immediately recognized that this has the potential to truly revolutionize the industry. Like any technology innovation, especially one as unique as this one, the market requires a lot of education and training. I view my role as that of an ambassador who works with brands, partners and agencies to place Digimarc Barcode in the context of their day-to-day responsibilities. Nothing gets me more excited than when I talk with designers and brand managers and it all of a sudden clicks that Digimarc Barcode is a true game changer.

You can learn more about Digimarc Barcode by visiting www.digimarc.com or by contacting Matthew Okin directly at matthew.okin@digimarc.com.
There is widespread demand for the connected package – or digitally-enabled cans, bottles, boxes, wrappers, pouches and packs that “talk” to the internet and inventory management systems. Add to this smartphone prevalence, shopper demand for more information plus new regulations requiring better product data, and you can see why brands and retailers are under pressure to provide greater transparency than ever.

But implementation is often a roadblock. Companies recognize the need to move fast, but they hesitate because of unknowns about the complexity of the project and uncertainties about how to proceed.

An innovative leader in automatic identification of media, Digimarc is famous for its imperceptible barcodes that do everything traditional visible UPC/EAN barcodes do and perform even better. Digimarc technology remains out of sight and yet packed with information for the digital age. In partnership with GS1 US, the barcode standards body, Digimarc serves grocers and household brands eager to deliver interactive content to consumers, drive faster retail checkout and improve manufacturing quality control with better barcodes.

Based on best practices from Digimarc customers’ experiences, brands seeking to activate connected product packaging can succeed by addressing these key considerations:

1. **Assess the opportunities**
   When it comes to strategically applying innovative technologies, certain regions, markets and product SKUs may make more sense to start with. Creating new designs that incorporate imperceptible Digimarc Barcodes rather than retrofitting a classic is the surest way to success. Holiday and other short-run seasonal packages also present excellent opportunities to explore, allowing organizations to identify the most advantageous product opportunities, even if they are not ready to activate connected packaging now.

2. **Educate key stakeholders**
   Companies cannot effectively capitalize on their commitment to connected packaging without efficient execution. Informing internal graphic design, marketing and external print vendors early about the significant benefits of change and how to collectively manage it can help ensure the support of key stakeholders and partners, enabling Digimarc Barcode deployment without disruption.

3. **Prepare the data**
   Consumer desire for product transparency and new regulations demand more and better data. The connected package is nothing without the rich product information and real-time data to support it: things like sustainability, provenance and manufacturing details. The most successful businesses will improve data integrity as they begin to embrace connected packaging.

4. **Create compelling content**
   Connected packaging is a powerful new tool, but its true potential is often diminished by mediocre content and subpar interactive experiences. Simply pointing shoppers to your website is anything but inspiring; put your best creative minds to work to deliver interactive experiences that truly captivate consumers with exclusive content, special offers and other unique opportunities.

5. **Measure results meaningfully**
   Testing success and measuring return on investment is an important part of any innovation initiative. Faster checkout, stronger consumer engagement and increased revenue are relatively easy to track. But, don’t underestimate less obvious criteria. Some businesses can benefit by containing costs and eliminating waste through improved component parts matching during the manufacturing process. Retailers may reduce downtime and lower worker compensation expenses due to fewer employee injuries caused by handling large or awkward products during checkout. Do the hard work now to determine success metrics that matter most.

Request a free sample package enhanced with Digimarc Barcode at info@digimarc.com.
CONNECTED PACKAGING
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CONTINUE THE CONVERSATION WITH CONSUMERS

Competing today means communicating with shoppers at every opportunity. Your product packaging needs to work harder. More powerful than traditional barcodes, imperceptible Digimarc Barcodes allow you to activate the entire package to deliver video, offers, recipes, reviews and more to shoppers with smartphones. Mobile customer engagement, now available everywhere.

TRY IT NOW!
Download the free Digimarc Discover® app (digimarc.com/app). Scan this ad to see for yourself.