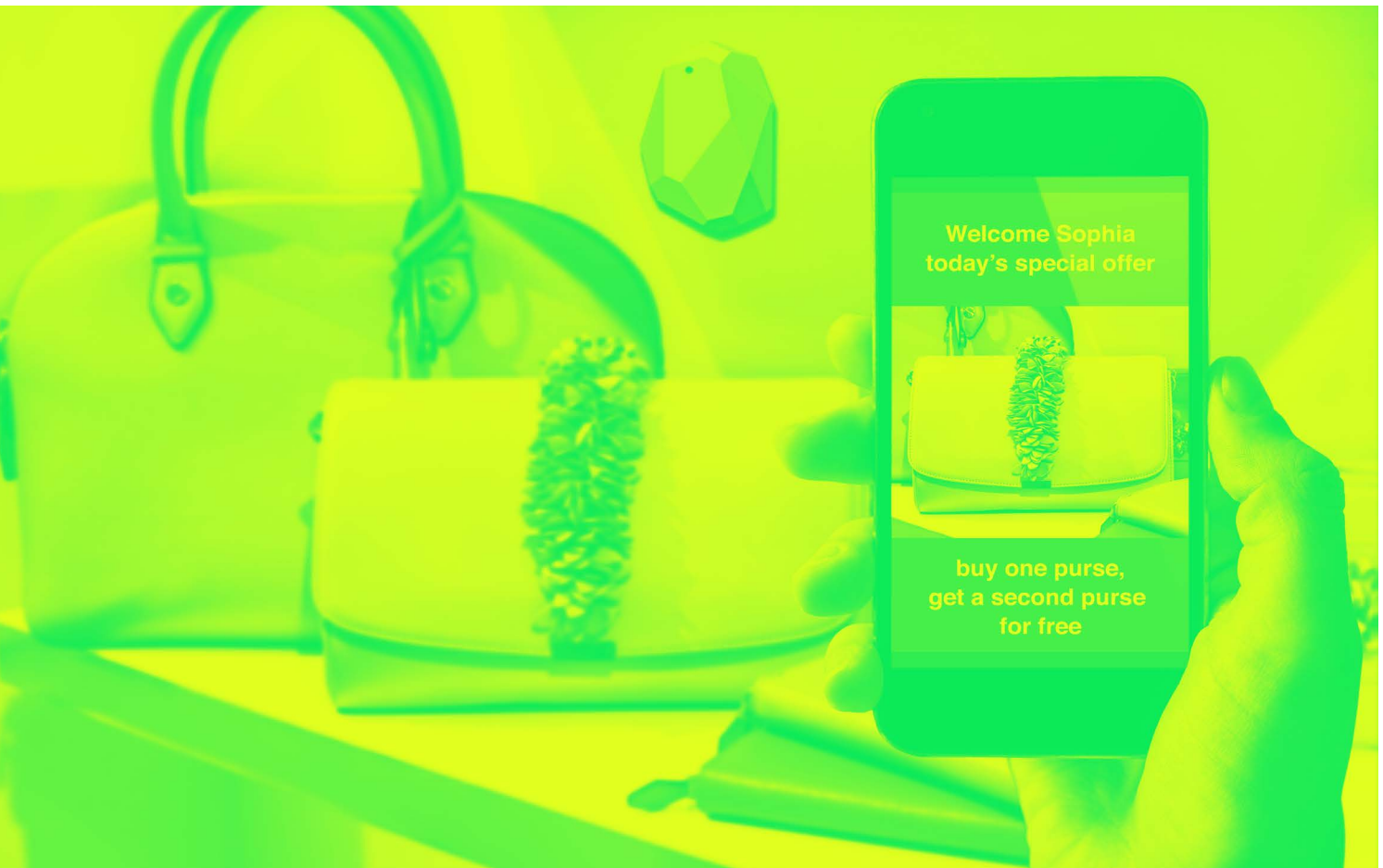




A Beacon for the Future

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IN 2013, BEACONS BURST ONTO THE SCENE

promising to deliver experiences which were previously only available online. At one time positioned as the savior of physical retail, over the years beacons have become relegated to the role of yet another misunderstood technology. Forbes declared them dead in 2016 with the pending launch of Amazon Go, while other outlets are saying "long live the beacon" in 2019. So, how can both be true, and how can brands and retailers make sure they are using them in the correct way?

The answer seems simple on its face but is actually a bit more nuanced. This is because beacons are still one of the best ways to connect physical and online behaviors for the purposes of attribution. A beacon can make a connection with a phone's unique ID and connect it to other online behaviors. So, if someone on a phone has searched for

the nearest Nordstrom or for blue sweaters and that same device enters a store later, systems like Google Ads can track that behavior. This is especially valuable for attribution when shoppers are using retail or brand applications and their phone shows in the store where attribution can be applied to "known data" like loyalty. Even so, using beacons for attribution may be temporary, as other, less-intrusive technologies have arrived, but are too cost-prohibitive in the short term.

So, as beacons live on in attribution, where they are losing relevance is in the area of real-time, in-store interactions with consumers. This is because conspiring realities in the store and rapidly advancing technologies have left beacons, and some of their promise, behind.

CONSPIRING REALITIES – EDUCATION, STORE CONTROL AND COST

To understand the shifting tide beneath beacons better, it's best to look at how brands and retailers have used beacons for consumer engagement. To send push notifications or trigger mobile experiences, it has always taken a "perfect storm" of events for beacons to work. Each user has to have a specific app installed, notifications enabled and, most importantly, have their Bluetooth activated. This last point is still troubling, as reports say that, at best, there is only about a 45% rate of users leaving their Bluetooth on in North America.¹

Another key element required for beacons to succeed is the educational display. For retailers, and brands that own their own retail space, these educational displays and encouragement of app downloads are required for success. This often requires in-aisle communications, video and promotions that encourage the right behaviors. Without these efforts, beacon-triggered engagements suffer.

While education and display may seem like easy hurdles to overcome, the control and monetization of the retail environment present additional hurdles. Since the first Bluetooth and BLE (Bluetooth Low Energy) beacons, multi-brand retailers like grocery and department stores realized they were losing control of their overall consumer experience when brands engaged shoppers through their own tools. Also, even when these brands used the retailer app as a home for the experience, there was still a perception that they were "screaming" at shoppers with push notifications all over the store.

For this reason, many top retailers like Macy's, CVS, Target and Urban Outfitters did away with incongruent experiences and put tight regulations on the usage of their own

application by brands for these purposes. Since retailers want shoppers exclusively using their application, to gather valuable data, they discourage displays and shopper-marketing that encourage users to go directly to brands. This is in direct opposition to what brands were hoping to accomplish with their own beacons in the stores. This same behavior is seen online with retailers like Amazon, who won't allow links to branded sites within product detail pages or storefronts. The final blow is that these same retailers realized they could monetize yet another aspect of their physical space, making brands pay more for less control.

Aside from installation hurdles, dead batteries and damaged beacons, the environment has become difficult to navigate and prohibitive for certain types of bespoke experiences. So why are brands still trying? The answer is that more than 70% of people who DO interact with a beacon in an app say that it helped them to make a purchase.²


RAPIDLY ADVANCING TECHNOLOGIES

Brands and retailers still see the value in engaging consumers in immersive in-store experiences, but how can they achieve the rate of purchase and interaction provided by those who do interact with beacons?

Emerging technologies are starting to give some power back to wholesale brands and make it easier for owned stores and retailers to engage consumers.

These solutions vary, and, depending upon the exact use-cases, different technologies are delivering specific solutions throughout retail. These new technologies also deliver more than what was expected of beacons, making them more powerful and multi-use, creating value and return on investment. With this newfound complexity, the best way to start looking at the ecosystem is to review the

**In their bid for relevance,
Beacons face challenges beyond
implementation and technology**



... the real breakthrough centers around the notion of checking in instead of checking out

major reasons brands and retailers have wanted to use beacons, and then explore the following ways new technologies are answering the call:

- Tracking location of shoppers
- Communicating with known shoppers in the store
- Unlocking app-specific experiences
- Providing expanded brand and product information

Tracking shoppers through the store has always been important to retailers, and heat maps, cameras and other hacks have helped merchandisers paint a picture of activities, places and preferences of shoppers. However, the tracking of specific people, products and behaviors through the store has been a bit elusive prior to beacons. Beacons have been good at delivering in-store tracking by tagging phone IDs and mapping movement, but better solutions are now in-market that deliver what beacons do and more.

Philips Lighting and Target have installed some lighting systems that can now track users' phone IDs to within 6 inches, not only providing when and where users are in the aisle, but also the specific products viewed.³ Walmart and others are using geofencing and Wi-Fi triangulation to

perform the same tasks without the installation or maintenance of beacons. Finally, computer vision, made popular by Amazon Go, and low-intensity radar by companies like FLIR Systems, are tracking individual movements of people and products together in real time.

Communication with known shoppers has centered on their desire for personalization, where they expect promotions, suggestions and reviews catered specifically to them. Early on this was part of the promise beacons could provide, but it required not only an installed application, but a signed-in user. In short, if consumers wanted this type of service, they needed to raise their hand. While this continues to be true, the technologies have advanced to cover more shoppers by reducing the need for applications and reducing the friction of sign-in.

To achieve this type of communication now, the real breakthrough centers on the notion of checking in instead of checking out. When a shopper checks in to a shopping experience, all of the specific movements tracked by the technologies above become attributed to a real person. The shopper's preferences are exposed to the retail environment, allowing for more flexibility in check-out and fulfillment while helping individual store and brand communications come to life in personalized ways.

As rapidly evolving technologies decline in cost and grow in functionality, beacons and their limitations will continue to become a less viable option

While Amazon Go and stores like it display the ultimate promise of these technologies, there are retailers like Aldi, who are encouraging check-in at the store level to receive localized specials and discounts and Starbucks, who is using installed loyalty cards in mobile wallets to bypass the need for an application while delivering location-based messaging and promotions.

Maybe of most interest to brands, retailers and consumers alike is the ability to unlock app-specific features and to trigger expanded experiences in the store. The number of brands competing for consumers via experience has risen to 89% from 36% in less than a decade.⁴ Brands and retailers who have both removed the need for an app installation and utilized features native to the consumers' mobile device have seen the greatest success with engagement of their experiences, two things beacons struggle to deliver.

Since the unlocking of the near-field communication chip in Apple phones in June of 2018 (Android phones have always been unlocked), all devices now have the native ability to communicate with branded displays, fixtures and/or individual products that have an NFC trigger. This trigger can then unlock mobile experiences either in-app (if installed) or via the device's web browser, bypassing the app entirely.

Other brands like Dunkin' Donuts, Macy's and CVS have utilized mobile-device cameras' now-native ability to read and recognize 2D codes like QR and those embedded in special, invisible printing on packing, signs and displays from companies like Digimarc. These codes are ideal for launching experiences in native web browsers or, if installed, through mobile apps where they can enable payment, visual search and sharing capabilities.

As these and other rapidly evolving technologies decline in cost and grow in functionality, beacons and their limitations will continue to become a less viable option, even for attribution.

BEACONS CAN EVOLVE TOO

Very similar to the once-discarded QR code, beacons continue to evolve. Beacons themselves have become easier to install, maintain and now work together to form spatial webs instead of operating individually within a limited radius. Additionally, some beacon networks are delivering non-app-based experiences. This type of innovation is working because it is expected that more than 400 million beacons will be deployed by 2020.⁵

Beacons will achieve this penetration for reasons more important than technology evolution, including being deployed to overcome the challenges of app-dependency, Bluetooth compliance, education and communication.

Just a few evolved uses of beacons include creation of networked zones where already-installed payment options in either Apple or Android wallets are automatically activated, stadiums filled with beacons constantly tracking crowd movement and activity over time, and warehouses utilizing beacons and RFID to generate real-time information for associates on product locations. Finally, beacons are finding their way into homes as helpful additions to the network of IoT devices providing security, alerts and tracking of occupants and household items.

In the end, the reality of delivering real-time customer experiences remains somewhat uncertain, but other uses will ensure some form of beacons will live on into the future.

NAVIGATING THE FUTURE

Beacons and other technologies are expanding and evolving at a quickening pace within the complex environment of retail. Shopper expectations continue to evolve as well, some predictable and others in ways not yet imagined. As brands and retailers navigate these spaces, having a partner who understands how to reach consumers and activate human-centric experiences across the landscape of technology options is extremely helpful, and that is exactly what we do at WONGDOODY. Our Commerce team is loaded with subject-matter experts and teams that create content, environments and experiences to help brands navigate retail, and empower retailers to meet consumer expectations.

BY STEVE WHITE
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Steve White helps our clients navigate the rapidly changing retail environment as the leader of WONGDOODY's Commerce practice. He is an active voice in the evolving retail conversation as a speaker, media contributor and committee member for the National Retail Federation.

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