paybook

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Unexpected Evolutions

Let's get physical

Once considered the grim reaper of brick and mortar, e-commerce is now crashing the in-store retail party.

Without getting too technical, we can trace the origin story of e-commerce back to the summer of 1994. While The Lion King and Forrest Gump were dominating the box office, the recently discovered internet was playing host to secure transactions for the first time ever. In August of that year, such items as a Sting CD, a Pizza Hut pizza, and even computers themselves were purchased on the World Wide Web—it was the dawn of online shopping as we know it today.

Since its infancy, e-commerce has evolved from a mere shopping novelty to the modern form of retail. From 2000 to 2016, the number of Americans who had made an online purchase jumped from 22% to 79%, according to Pew Research Center. And with the advent of mobile technology in the 21st century, the convenience of online shopping was no longer confined to a home desktop—51% of Americans reported making a purchase using their smartphones.

With current sales amounting to $294 billion—and an annual increase rate of 17% that has those numbers reaching $414 billion in 2018—it feels safe to assume e-commerce is the new commerce. Hello Cyber Monday, goodbye Black Friday. At some point in the not-so-distant future, brick-and-mortar retail will become obsolete, right?

Wrong, actually, by all current indications. The fact is, roughly 90% to 95% of retail sales are still generated in store, totaling nearly $4 trillion in annual sales. People still prefer the experience of shopping in a physical store for several reasons, and it's not a trend getting phased out by any means. That's because millennials are more likely than older generations (35% vs. 22%) to visit retail stores; in total, 98% of Generation Z'ers shop in store, where nearly 70% of them do the majority of their shopping.

Since old-fashioned retail is not going away, e-commerce players have to decide whether staying insular from the physical world is good for business. Several e-tailers, both large and small, have already crept into the space via a range of temporary and long-term occupancies. Companies like Warby Parker, Bonobos, and Casper have popped up in big cities across the country, in response to customers wanting to see, touch, and test their products.

And while some e-commerce sites have opened permanent physical stores, like Amazon Books, others have opted for "concept stores" that can range from temporary, pop-up locations to "showrooms," which allow shoppers to try on or test a product only to order it later online for home delivery. Showrooms are perfect for cumbersome goods like mattresses, but can also accommodate shoppers who prefer not to carry a bag around.

So even with roughly 8,600 physical stores having shuttered in 2017, resulting in 147 million square feet of lost retail space, according to Credit Suisse, the value of brick and mortar has not been lost among e-tailers. And vice versa. Just like we have showrooming, there is also webrooming, in which a shopper buys in store after thoroughly researching online.

"If a brand can afford it, there's [sic] a lot of benefits to occupying a retail location," Jill Dvorak, senior editor for digital retail at the National Retail Federation, reported to Digiday. "Not only do physical stores cater to digital generations attracted to experiences, but conversion rates in stores are also higher than online."

Indeed, while shopping online may seem quick and painless, data from SalesCycle has the global digital shopping cart abandonment rate currently hovering around 75%, equaling trillions in lost sales. Reasons for cart abandonment vary from unwanted shipping costs, to customers refusing to create online accounts, to not trusting sites with their credit card information.

"Pretty much anybody can sell something online these days, but to have a physical location, there is definitely a brand legitimacy in that," Dvorak told Digiday. This has created a new industry, in which digital marketplaces, like Appear Here, help businesses find short-term rentals for pop-up shops.

In the end, the savviest retailers will understand and embrace the benefits of both e-commerce and brick-and-mortar retail. Shopping is now an omnipresent function of society—in that we are always able to do it, whenever and wherever—and those offering the most holistic, all-encompassing experiences will reap the rewards. ■

The Code of Better Business

ADK 4.5.0 is allowing Verifone to get to market with innovative new devices and services faster than ever before.

In the recent past, nearly every payment device was unique in its software. Each one required a separate payment app and had to go through all certifications separately. Verifone recognized the inefficiencies of this situation and developed a proprietary ADK (Application Development Kit) so payment apps could be shared across devices, and multiple certifications could be achieved for families of devices at the same time.

"The payment landscape varies incredibly around the world," says Galen Davis, Verifone's Senior Platform Product Manager. "In some countries, card transactions represent more than 90% of the total, while in others, cash is still king. Also, the regulatory environment is unique for each country, and sometimes for each retailer."

Developing a platform where developers, both internally and externally, could write payment applications for the vast majority of Verifone devices with one codebase was a gargantuan task. ADK 4.4.0, released in September 2017, supports 75+ Verifone device variants, which means Verifone's customers and partners can leverage their software efforts across nearly the entire Verifone device portfolio.

With ADK 4.5.0, to be released in February 2018, hardware support is expanding to include even more of the Verifone portfolio. New hardware models are being introduced, and existing apps are already supported. For example, in Germany, the effort to bring up two different existing payment apps on prototype hardware took less than one hour, without the need to write any new code. This new hardware model will be delivered to certification labs at least three months faster than previous experiences. Thorsten Schabacker, the head of the Verifone Germany Application Development Center, directly attributes this acceleration to the ADK.

> **"Building our applications on the ADK really pays off in terms of effort and speed."**

"Thanks to the ADK, we were able to pass the GBIC (German Banking Industry Committee) certifications of the V400m, M400, and e285 in record time—the process for all three took only weeks versus several months per device in the past. The ADK allows us to develop one application for multiple devices despite the different form factors," says Schabacker. "We had the same experience with the Swiss ep2 certification of our application for Austria/Switzerland on the e355, P400, and V400m. Building our applications on the ADK really pays off in terms of effort and speed."

But ADK 4.5.0 is not just about increasing speed to market—there are exciting new security and privacy features as well. The most noteworthy of these is support for AES DUKPT, a new multi-layer security system where data is encrypted and the keys are unique for each transaction. This offers a much higher level of security than previous standards.

New hardware and new encryption support would, by themselves, constitute a very significant ADK release, but ADK 4.5.0 goes even further. Most of Verifone's Engage family has hardware support for Bluetooth, including Bluetooth Low Energy (BLE). With ADK 4.5.0, the full range of Bluetooth features is supported in the ADK, including BLE beacon and GATT (General Attribute) support. It literally only takes three lines of code to activate a beacon; with this, new frontiers are available for our devices. Verifone is actively working with partners to bring new experiences to retail, including hands-free loyalty and personalized in-store promotions.

The Verifone ADK removes obstacles we once had in providing for our clients. Now, we can offer better experiences, and do it faster than ever before. ∎
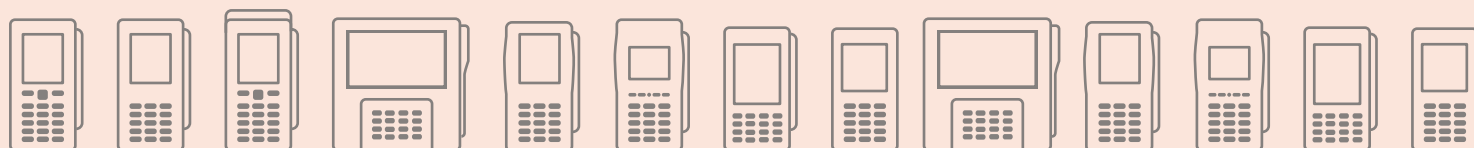
Helping Merchants Grow

With Verifone Connect, merchants have all they need to manage and cultivate a successful business.

These days, merchants need more than just a payment device. They seek resourceful solutions for their businesses in a rapidly advancing commerce ecosystem—solutions that will drive revenue, but also streamline their internal and external operations. They want the overall experience of purchasing, installing and using a new payment solution to be one of ease and excitement, not uncertainty and trepidation.

Businesses come in all shapes and sizes—from SMBs to Tier 1s, retailers to restaurateurs. As such, it's hard to find a payment solution that can meet every merchant's specific needs, with the added benefit of being simple to implement and operate.

Verifone Connect is a flexible, all-in-one business solution, built to meet the needs of all merchants no matter their specialty. It's a platform packed with the most comprehensive toolset ever, perfect for accepting payments, engaging customers, growing business, and managing operations. No matter what kind of merchant they are, Connect is tailor-made for them, right out of the box.

"Merchants are busy people. Trying to make sense of multiple, unintegrated tools is a distraction from what really matters—engaging their customers and growing their businesses," says Glen Robson, EVP, Global Head of Solutions at Verifone. "With Verifone Connect, we bring all of those discrete pieces into a single, integrated solution that enables them to manage all aspects of their business and delight their customers, whatever their scale."

The Connect solution includes advanced payment and security services, comprehensive estate management tools, our new Merchant Marketplace with a suite of integrated commerce applications, and gateway services. When paired with any of Verifone's Engage or Carbon devices, Connect allows merchants to better manage and grow their businesses with the best in next-generation software and hardware.

"Verifone Connect makes payment services as simple as ordering and customizing your phone," says Abizar Vakharia, Verifone's Vice President of Digital Experiences. "Simply choose the plan, device, and app bundles that are best for your business, and connect your new terminal to the payment network of your choice."

After getting connected, Vakharia adds, "Verifone's technology will take over, initializing and activating your device and downloading the applications you've chosen from the Merchant Marketplace. It's that simple."

A key benefit of investing in Connect is the seamless integration of payment and non-payment apps with the POS system. Apps can be pre-loaded onto devices or downloaded from Verifone's Merchant Marketplace, and are configurable to meet specific business needs. Some apps are built for customer engagement, offering promotions and loyalty programs, while other apps cater to backend operations, like managing payroll and inventory.

Access to Verifone's estate management portal, also available with Connect, gives merchants the power of end-to-end device management. The tool allows estate owners to effectively monitor, troubleshoot, and update any of their devices out in the field.

Connect is equipped with Verifone's world-class security technology, which provides advanced encryption and tokenization of sensitive payment data. When combined with Verifone's fleet of secure gateways, Connect ensures that transactions are conducted under the safest standards available.

Merchants and acquirers purchasing Connect can lower their total cost of ownership by choosing from basic, premium, and premium plus offerings, depending on the number of tools and services they want. And because Connect runs on the cloud, business operations can be performed anywhere, at faster speeds.

It doesn't matter what one's business needs are; with this all-in-one service, they never feel like a burden. Merchants can focus on what really matters—building lasting relationships with their customers—and let Connect handle the rest. ∎
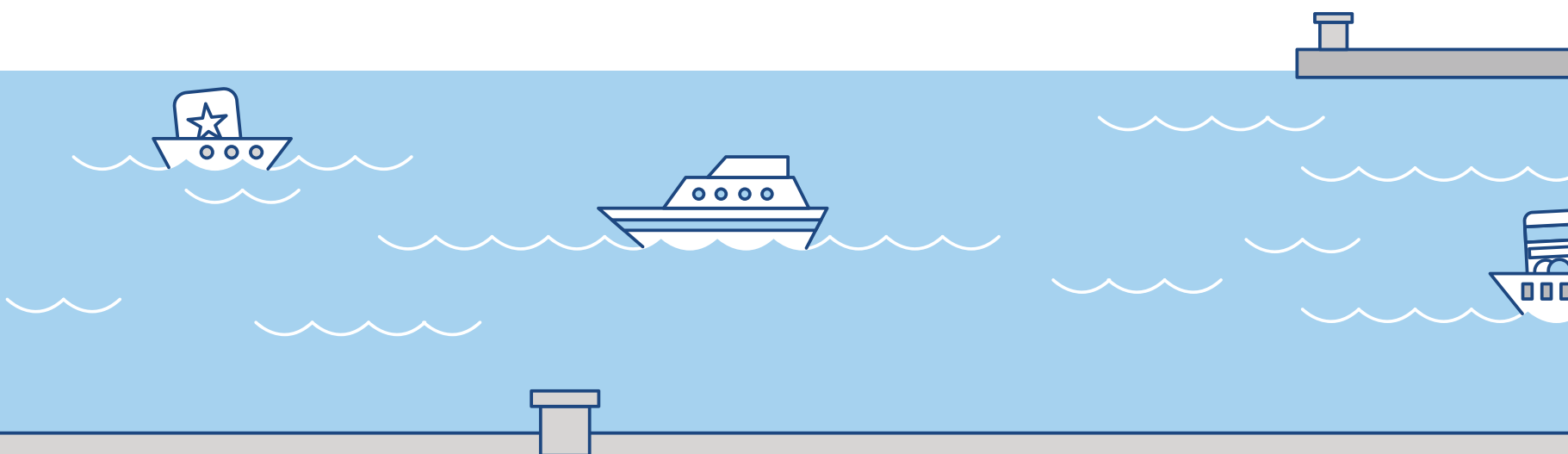
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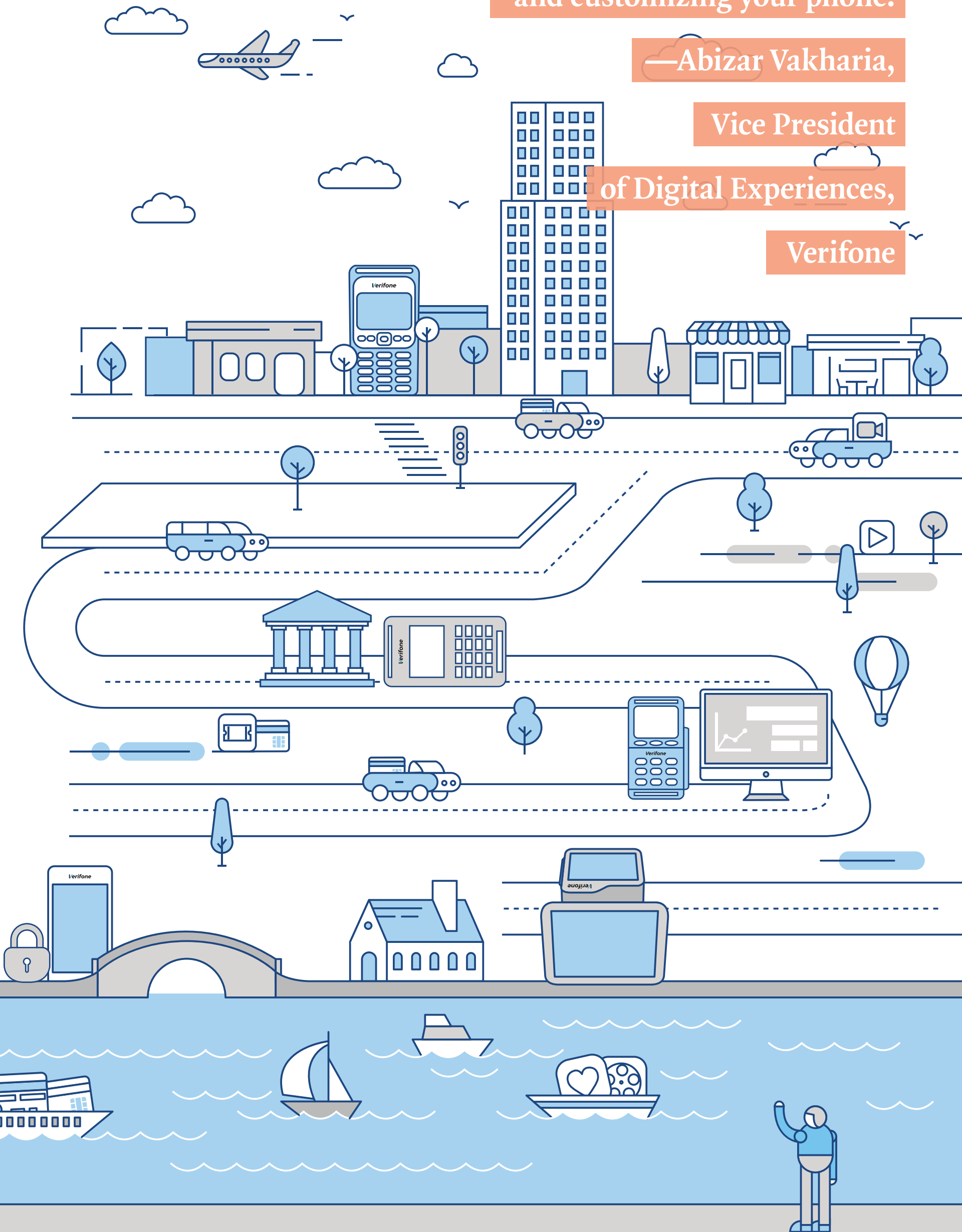**Verifone Connect makes payment services as simple as ordering and customizing your phone. —Abizar Vakharia, Vice President of Digital Experiences, Verifone**

Non-Banks Doing What Banks Do Best

More companies are offering services previously reserved for banks. Does this pose a threat or an opportunity?

Square has quickly become a major player in the payments industry, but their revenue comes from more than just the sale of magstripe reader dongles. One of the reasons for Square's success is their small-business loan service called Square Capital. In late 2017, the *New York Times* reported that "the revenue from these loans has been increasing faster than the overall growth of the company and has Square looking more like a bank every day."

Companies, like Square, encroaching on services that were typically bank exclusives is not a new thing, but it does seem to be a growing trend. In 2006, OnDeck, a non-bank corporation, was founded to provide small business loans. In 2008, Kabbage popped up, offering the same kinds of services. That same year, Ally Financial became one of the world's first digital-only banks; today, Ally is worth over $5 billion. Meanwhile, Stash, founded in 2015 and still going strong today, is a mobile app that provides micro-investment services.

Ex-Barclays CEO Anthony Jenkins reported to CNBC that bank branches will be "as common as a Blockbuster video store in a few years' time," and that the trend is moving faster than he anticipated.

So does this mean that big banks will become obsolete? Probably not, but it really depends on how they react during this pivotal period. As *Forbes* reported in 2016, "Banks don't have much choice but to adapt...they need to adapt quickly to the new technology or risk being left behind. That's why strategic partnerships with fintechs are critical. Tech startups can help banks keep up with innovation, while banks provide industry knowledge and financial resources."

Banks are now in a unique position to partner with fintech companies, and, by offering capital and expertise, this may be their means of staying ahead of the curve. Rather than inventing new tech, they could opt to support and foster companies who are already doing it well—and thus carve out their place in this evolving landscape.

But it all comes down to risks and rewards. If a bank chooses to be set in its ways, it may not survive the next 10 years. On the flipside, backing bad tech could also have devastating consequences. One example was the promising Plastc, which offered a single card that would allow consumers to digitally store all of their credit, debit, and gift cards on it. With an e-ink screen, owners of the Plastc Card could swipe between accounts and tap, swipe, or insert it just like a normal payment card. After taking $9 million in preorders, the company shut down in 2017 and filed for bankruptcy. In their farewell letter, Plastc cited a failed Series A round of $3.5 million in funding as the reason for closing their doors.

The advantage that banks have is their solid foundation. Unlike private investors or some capital firms, banks can take a hit and keep on going. But the fintech world is evolving. Banks naturally need to weather these changes, and knowing how to coexist with this, new competition will allow them to do so gracefully. ■

NON-CENTS

Payments Gone Wild

"It's this weird voyeurism," says Emma Roller of the National Journal. "We're all interested in seeing what our friends are paying for." In Roller's review of the payment app Venmo for *Slate*, she wrote that it's a combination of PayPal and Facebook—only better.

Venmo has had a meteoric rise since it was founded in 2009. In 2013, it was acquired by PayPal for $800 million. And while there's still heavy competition in the peer-to-peer payments space, Venmo seems to be the only one offering a social feed showing what your peers are paying for.

Of course, because everyone is a comedian, most of these payment descriptions are probably, definitely fake. Just open any Venmo social feed and you'll see that someone paid $20 for "zombie repellent spray" or $17 for "psychic powers". While this may seem juvenile, it's a selling point according to the social media data interpretation company Crimson Hexagon, which reports, "A large number of Twitter users are expressing how much they enjoy reading the transaction descriptions by their friends, and ultimately using [Venmo's] feed as one of their newest favorite social media platforms."

Venmo is now beginning to offer its services to businesses. You wouldn't need to bring your credit card anywhere—just Venmo the pizza guy and dinner is served. But here's the question this poses: Would Venmo's growth actually hurt its reputation? Right now, it has clout among peers, but what happens to that social media feed that everyone loves when corporations get involved? More money could mean less cool points.
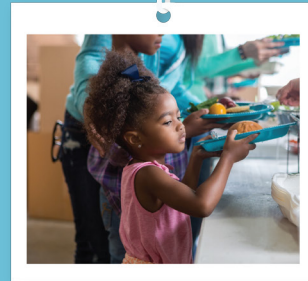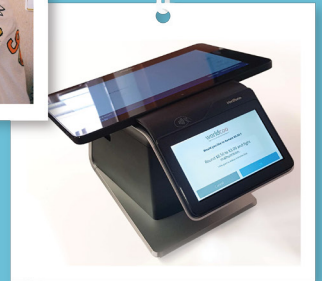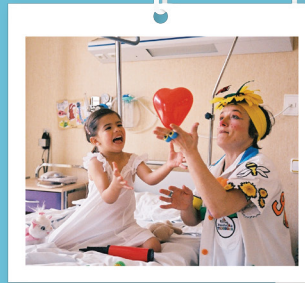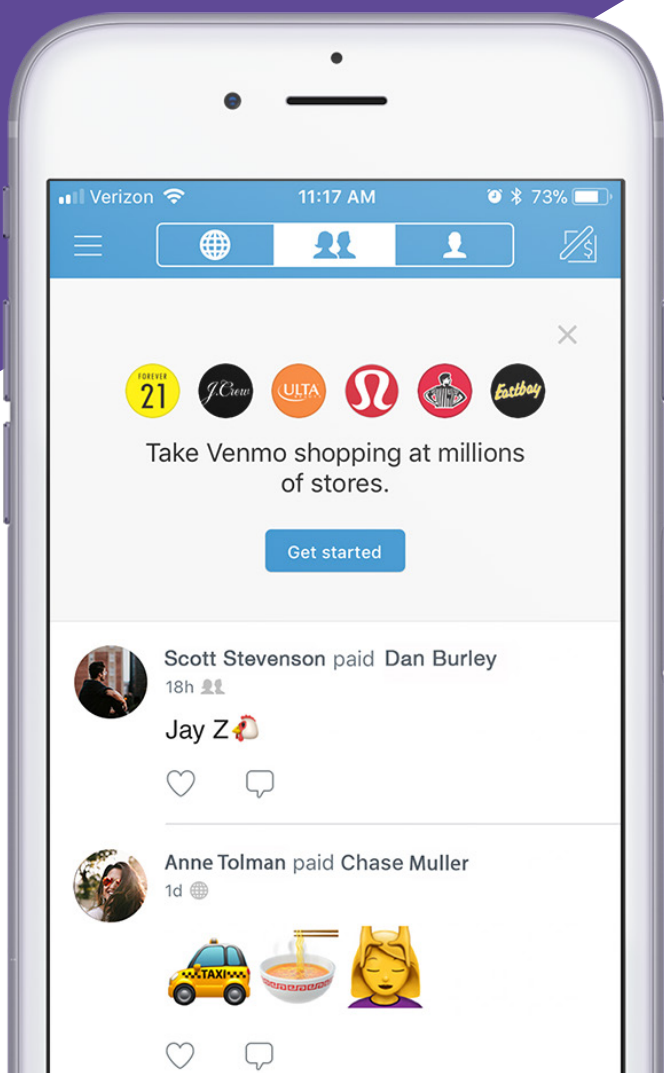
FEATURED APP: WORLDCOO

Give a little bit

Worldcoo brings charity crowdfunding to the POS

Short for world cooperation, Worldcoo finds funding for NGO projects with high social and environmental impacts. Since 2012, they've done so with a free online widget that e-commerce sites can add to checkout. Worldcoo matches companies with projects that best fit their core values and existing CSR efforts.

"Our vision is to be the tech leader in helping NGOs all over the world," says Sergi Figueres Moret, co-founder and CEO of Worldcoo. "The key is to make crowdfunding for these projects easy and transparent for everybody involved."

Worldcoo will now expand beyond e-commerce with a more prominent presence in the physical world. This year, the Worldcoo app will launch on Verifone Engage and Carbon devices, bringing their charitable efforts to the in-store point of sale. Customers will be prompted to round up their purchase amounts to the nearest dollar before completing payment, with the difference being donated to a worthy cause.

To date, Worldcoo has funded over 150 projects, raising in excess of €764,000 for more than 126,000 direct beneficiaries—from assisting in disaster relief and cancer research to fighting child hunger. Worldcoo has worked with over 337,000 donors—including brands like Ticketmaster—to raise funds for projects helmed by charities like UNICEF and the UNHCR.

Figueres hopes the Worldcoo app will do for retail what the widget did for e-commerce.

"It's a great way to improve your brand and communicate with your customers," says Figueres. "Companies that worked with us have seen an increase in loyalty, on top of the positive impact they are having on society."

Verifone e280

Processor

ARM® Cortex®-A9
32-bit RISC processor

Memory

256MB Flash
128MB SDRAM

Battery

1660 mAh, rechargeable

Display

3.5" HVGA color display

Card Readers

Triple-track MSR
EMV L1-approved smart card
ISO and NFC/contactless

Security

PCI 5.X SRED

Peripheral Ports

1 USB-C port

Connectivity

Bluetooth 4.2 BLE
Wi-Fi 2.4GHz, b, g, n
MFi-certified

Size

115 mm x 67 mm x 13.75 mm

Accept Anywhere

The sleek and contemporary e280 is as versatile as you need it to be. Whether it's in your hand, on the counter, or inside a billfold, it accepts all major payment types, including MSR, EMV, and contactless—making it the perfect companion for any business.

The 3.5-inch, full-color touchscreen provides flawless signature capture and secure PIN entry, and, with our long-lasting battery, you can process over 300 transactions over eight hours without needing to recharge.

Verifone®