



A TECHNOLOGICAL RECKONING

In late February, a group of 175 biotechnicians met in Boston at the Marriott Long Wharf hotel, an austere, brick structure overlooking the harbor. Two weeks later, the meeting would be linked to 77 of the then-95 coronavirus cases in Massachusetts. It became known as the Biogen Cluster, named for the Cambridge-based company that hosted the event.

When news of the Biogen Cluster broke in mid-March, Dan O'Malley was in his office in the Boston Financial District, a few blocks from the epicenter. O'Malley is CEO of Numerated Growth Technologies, a technology company he founded that offers a small business lending platform to banks.

He was preparing for the last of his 60 employees to start working from home. He was also tracking the progress of the CARES Act, a stimulus package making its way through Congress that provided \$349 billion in government-backed Paycheck Protection Program (PPP) loans to businesses with fewer than 500 employees.

"Looking at the bill, we realized that every single

business with under 500 employees was going to try to get one of these loans,” O’Malley recalls. “All of them. Millions of them. All at the same time.”

This hunch was soon confirmed. Within days, a quarter of Numerated’s clients reached out for a solution to the coming onslaught of loan demand. O’Malley went all-in, redirecting the entire company to develop a PPP solution.

“Things are absolutely insane over here,” wrote Cheryl Kardos, Numerated’s senior vice president of marketing, in an email on April 1. “We are getting an inbound lead from a bank every 15 minutes. ... I have never witnessed anything like this before.”

That was two days before the Small Business Administration began accepting PPP loan applications. While Numerated was quick to focus on PPP, there was no way to account for the haphazard way

were late to technology struggled to keep up with the surge in loan demand.

Some banks chose not to participate in the PPP program, referring customers to other institutions. Others cobbled together digital applications but were still performing the documentation and underwriting processes manually before keying the data into the SBA’s E-Tran portal by hand. One southeastern community bank that took this approach processed about 100 loans for its customers but ultimately referred another 400 applications to Kabbage, an online lender whose branding still dominates its homepage.

Not all banks faced such a grim fate. Those that invested in digital lending technology prior to the crisis were better positioned to serve their customers. This includes banks in geographies that made

The Covid-19 crisis is widening the tech chasm.

BY AMBER BUKER

the program was rolled out. Each time new guidance was released, Numerated had to reconfigure its platform. And guidance was still coming out late into the evening on the day before the program was set to open on April 3.

This is a “once-in-a-career opportunity” to make a big impact in a small amount of time, O’Malley told his team. “We’ve all read stories of hypergrowth in TechCrunch,” Kardos remembers O’Malley saying. “This is what it feels like.”

When I spoke with O’Malley in mid-April, he summed up his feelings in one word: overwhelmed.

“Most of us have been working 20-hour days,” O’Malley said. “Everybody’s tired. I think everybody’s emotional. We’re trying to do the right thing as fast as we can. And the pressure is intense because we know what the stakes are.”

As technologists like O’Malley raced to provide banks with tools to expedite the PPP loan application process, the chasm between banks that are on solid technological footing versus those that are not seems to have widened.

This created the perfect storm for change in banking. First, the volume of PPP applications was unprecedented. Second, the SBA wasn’t equipped to lend at such historic volumes. Finally, banks that

digital investments and business continuity plans a priority to combat other uncontrollable, natural events.

Jeff Bray joined Seacoast Banking Corp. of Florida in 2006 as the executive vice president of technology and operations. After helping steer the \$7.4 billion bank based in Stuart, Florida, through Hurricane Matthew, Bray focused on automating the lending process. He came across Numerated at an incubator run by the bank’s core provider and then realized he had known O’Malley from their overlapping tenures at Capital One Financial Corp. The fact that Numerated was developed inside one of the oldest mutual banks in the country, Boston-based Eastern Bank Corp., helped seal the deal.

“It would have taken something really incredible for us to walk away from Numerated,” Bray says. “I don’t think there was anything out there that would have automated some of the areas Numerated automated that make the process and the workflow a lot easier.”

Around the same time, the team at Montecito Bancorp experienced a sense of déjà vu. The \$1.6 billion bank has branches along the southern California coastline. Within the bank’s service area lies the resort town of Ojai. Accessible by a single

highway, Ojai is popular for healing retreats and nature experiences. Chain stores are prohibited by law in Ojai; only locally owned small businesses are allowed.

Two years ago, Montecito Bank had a dry run of sorts for the unfolding coronavirus crisis when a mudslide blocked access to Ojai. Tourism vanished overnight. The town's small businesses were left fighting for survival. The lessons learned by Montecito's president and chief operating officer, George Leis, in that crisis is helping the Santa Barbara, California-based bank weather this one.

To help Ojai through the mudslides, the Montecito team personally visited local businesses to check in. The owner of a local coffee shop was particularly glad to see Leis. The cafe had been doing upwards of \$1 million per year in sales and was largely financed by fintechs that the owner had applied to from his smartphone. He didn't have a relationship with these companies, but the convenience of doing business with them made up for that — until his revenue evaporated, that is.

The coffee shop owner called his lenders, but they wouldn't bend. If he didn't pay, they would consider his loans to be in default. That's where Montecito came in, refinancing the owner out of his fintech loans. At some point, Leis asked why the owner hadn't just borrowed from a bank in the first place. It seemed too hard, the owner said.

This was a lightbulb moment. Until then, the bank had been lending to small businesses the "old-fashioned way," Leis says. This proved it was time to change.

Leis met O'Malley at an industry event a few weeks later. And shortly after that Montecito Bank became one of Numerated's first clients on the West Coast.

Numerated implemented its PPP product for Montecito in less than a week. The bank was able to start processing applications a couple days after the first funding round opened on April 3. It could work through applications from existing customers so quickly that it began reaching out and helping businesses it didn't have relationships with. The potential to turn these borrowers into lifelong customers isn't lost on the bank. "Numerated has shown us a vision of things that we can adopt across multiple platforms," Leis says.

Numerated began life in a bank.

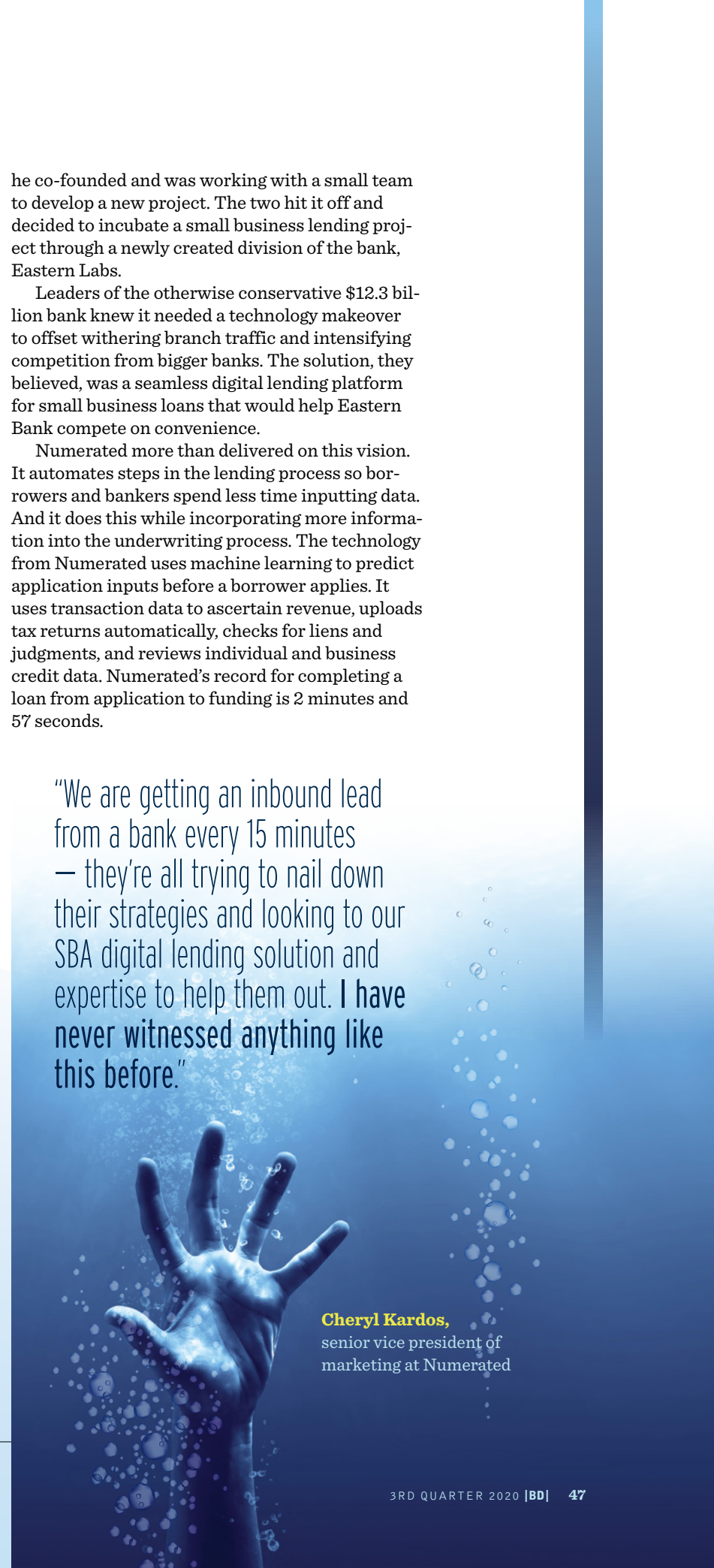
In 2015, Eastern Bank Chairman and CEO Bob Rivers took his executives on a tour of the Boston tech scene. He was looking to meet entrepreneurs and explore ideas for transforming his bank. A mutual friend introduced him to O'Malley, who had exited from an online financial services firm

he co-founded and was working with a small team to develop a new project. The two hit it off and decided to incubate a small business lending project through a newly created division of the bank, Eastern Labs.

Leaders of the otherwise conservative \$12.3 billion bank knew it needed a technology makeover to offset withering branch traffic and intensifying competition from bigger banks. The solution, they believed, was a seamless digital lending platform for small business loans that would help Eastern Bank compete on convenience.

Numerated more than delivered on this vision. It automates steps in the lending process so borrowers and bankers spend less time inputting data. And it does this while incorporating more information into the underwriting process. The technology from Numerated uses machine learning to predict application inputs before a borrower applies. It uses transaction data to ascertain revenue, uploads tax returns automatically, checks for liens and judgments, and reviews individual and business credit data. Numerated's record for completing a loan from application to funding is 2 minutes and 57 seconds.

"We are getting an inbound lead from a bank every 15 minutes — they're all trying to nail down their strategies and looking to our SBA digital lending solution and expertise to help them out. I have never witnessed anything like this before."



Cheryl Kardos,
senior vice president of
marketing at Numerated

Numerated automates loan marketing as well. It aggregates data on the businesses in a bank's markets and prequalifies them for loans. It's also one of very few platforms that links directly to E-Tran through an application programming interface, or API.

These features delivered real results for Eastern Bank, including a fourfold increase in the size of its small business loan portfolio.

Eastern's success didn't stay secret for long. Other banks asked if they could license the technology, so Numerated spun out of Eastern Labs in April 2017, raising \$8 million in capital from Venrock, Fidelity Information Services (FIS), FINTOP Capital and others.

Another early investor was Raj Date, a Harvard-educated attorney who spent eight years at Capital One and Deutsche Bank before a four-year stint in public policy. He helped establish the Consumer Financial Protection Bureau before founding the venture capital firm Fenway Summer Ventures. Date also happened to know O'Malley from Capital One.

Numerated's business model fit a theory that Date and his firm were working backwards from

— that successful fintechs will use technology to magnify banks' innate competitive advantages, including access to low-cost funds, payment rails and deep reservoirs of customer data. Additionally, Numerated's solution didn't require banks to overhaul their core operating systems, a major impediment for customers. It also wasn't asking banks to change their underwriting policies or rely on "black box" artificial intelligence to make credit decisions.

This approach is grounded in experiences from Numerated's early years at Eastern Bank. "When you have that DNA within the company from the get-go, it makes it a lot easier," Date says. "You get to relate to your client and be able to speed their adoption of the technology and ultimately their success. It's targeting a big opportunity and being realistic about what the practical constraints on mid-sized banks really are."

Numerated also has two advantages from a technical perspective, Date notes. It offers scalability and lightweight implementations.


On April 14, one day before the first round of PPP funds ran dry, Numerated's platform was processing more than \$200 million in applications

per hour. When the dust settled from the first tranche of SBA funding, it had originated \$7 billion in approved PPP relief funds. That amounts to about 5% of all PPP loans coming from 70 community and regional banks, many of whom were new to Numerated.

When I first interviewed O'Malley in October 2018, the company had nine bank clients. Over the next year, that number ballooned to 20. Then in March of this year, Numerated's client list exploded to 90 banks.

While the PPP product is different from other Numerated offerings, many of Numerated's new PPP customers are inquiring about products like loan forgiveness automation, SBA 7(a) loan originations, account opening, small business loans, lines of credit, credit cards and renewals. With an average contract term for the small business product at three to five years, it's safe to say that Numerated's future is bright.

The PPP narrative has swallowed much of the conversation about banks and their relationship with technology since the beginning of April. The size and urgency of the program spotlighted the difference between the haves and



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Jeff Bray, executive vice president of technology and operations at Seacoast Banking Corp. of Florida

↑ Numerated employees at its office in Boston.

the have-nots when it comes to digital lending capabilities. Yet, there's more to the story about the technological reckoning banks are witnessing now.

In Newburyport, Massachusetts, Peter Wannemacher pauses our discussion about digital banking. He and his wife are in high demand at work while at the same time adjusting to working from home while parenting their 2-year-old son.

Wannemacher is a principal analyst at Forrester, an advisory and research firm, where he's spent nearly 13 years advising banks on digital strategy. From his vantage point, many regional banks, community banks and credit unions were grossly unprepared to offer remote digital capabilities.

It's a problem of the industry's own making, says Wannemacher. Many banks still depend on their branch networks to service customers or direct inquiries to their call centers instead of directing customers to digital tools. This created a lack of awareness among customers about how to access and use those tools, which resulted in a deluge of inquiries to already overburdened call centers.

Forrester polled its clients the week of March 11 — the same week the World Health Organization declared the coronavirus a pandemic — and found that 84% of surveyed banks were not prioritizing digital services in communications with customers. Banks would mention their website or mobile app, but they were still directing customers to branches.

Still, Wannemacher has seen broad adoption of technology among banks in the past decade, especially the last five years. Some of this was spurred by the financial crisis of 2008-09, after which institutions like JPMorgan Chase & Co. and Bank of America Corp. doubled down on digital investments in pursuit of organic growth.

Entering the latest crisis, four technologies were table stakes for banks, says Dan Latimore, chief research officer at Celent, a research and advisory firm. The list includes a good digital experience, online account opening, remote deposit capture and peer-to-peer payments. Even banks that already offer these features should be thinking about upgrading them, Latimore continues, while those that don't should acquire them.

"You may have time to catch up based on how big a reservoir of goodwill you've got with your customers," Latimore says. "But that reservoir is not infinite. At some point you're going to have to have a robust digital offering."

How long before banks pass the point of no return? This will be determined in part by the length and severity of the Covid-19 crisis. If the

economy reverts to normal quickly, customers may return to their pre-Covid habits. Even in that event, however, habits that were easy to adopt, like contactless payments and remote deposit capture, are likely to stick around. If the virus is protracted, on the other hand, banks will need to further prioritize their digital channels.

Wannemacher thinks the unfolding crisis has accelerated technology adoption, but hasn't doubled it. Latimore has a different view. "There are very few hockey sticks in adoption curves," he says. "This is an event that will change that."

Understanding this is important not because this crisis will crown winners and losers, but because it will widen the chasm between banks that can provide the tools the next generation of customers expects, and those that cannot.

"History is a useful indicator," says Joe Zeibert, managing director of global lending solutions for Nomis Solutions, a California-based technology company. Zeibert was an intern at Bank of America in 2008, with a front row seat to the Great Recession. Similar to back then, he says, banks are taking varied approaches to technology, with some rushing to innovate so they can come out of the crisis ahead of the curve.

"The innovators learned last time that they were better off than the ones who slashed-and-burned projects and tech," Zeibert says. "They came out of the downturn with a five-plus year innovation lead over their competitors — a gap that is almost impossible to close for those that don't keep innovating."

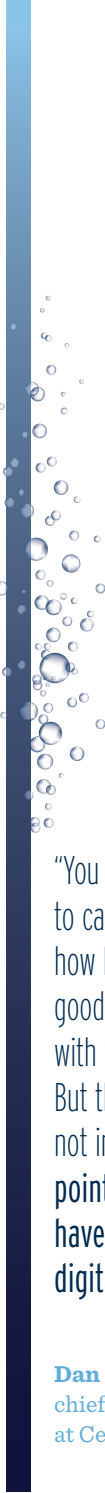
"We are at a similar inflection point now," he continues. "You can bet that those that innovated last time will continue to make their leads grow."

That's what Numerated is betting on. O'Malley estimates that the response to Covid-19 has accelerated Numerated's growth trajectory by two years. It plans to use that tailwind by investing in new products and engineering, with the goal to provide a broader suite of business banking products.

"Nothing like this ever happened before, where an entire industry has had to learn in leaps how to deliver all its products digitally," O'Malley says. "It just blows my mind."

"We feel lucky to be at the nexus of this transformation, but it's really not about us," O'Malley continues. "It's about this moment in time in banking and how digital just had to happen right now. You can never go back." **|BD|**

Amber Buker is program director of FinXTech Connect.



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