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AI FOUNDRY
Reimagining How
a Mortgage is Manufactured

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AI
FOUNDRY

REIMAGINING
HOW A
MORTGAGE
IS MANUFACTURED

By Russell Thomas

According to a '17 McKinsey report, banks are rushing to deploy the latest automation technologies in the hope of delivering the next wave of productivity, cost savings, and improvement in customer experiences. Banks and lending organizations have spent years trying to reorganize teams, restructure processes and digitally transform their entities only to see marginal improvements. At the same time, many technology companies have enhanced their existing technology solutions but have, until lately, not looked to re-imagine their solutions from the ground up. In recent years, lenders have deployed this feature/function enhanced technology but now is the time for banks to re-imagine how a mortgage is manufactured and reinvent their mortgage technology stack to include various disruptive technologies for significant improvements.

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There will be a second wave of automation and AI emerging in the next few years, in which machines will do up to 10 to 25 percent of work across bank functions, increasing capacity and freeing employees to focus on higher-value tasks and projects according to a May '17 report from the McKinsey Global Institute. To capture this opportunity, banks must now take a strategic, rather than tactical approach to technology and business processes. In some cases, they will need to design new processes that are optimized for automated work, rather than for people, and couple specialized domain expertise from vendors with in-house capabilities to automate and incorporate a new way of working. Banks and mortgage lenders will need to marry recent front office improvements with back-office automation to speed the byzantine mortgage-approval process, so consumers can have a true "Uber-like" experience, where mortgages are underwritten in hours, not weeks.

I sat down with AI Foundry, a startup company, to learn more about how they are leading the effort in this second wave of AI automation and providing a disruptive mortgage technology solution. "The mortgage loan process is certainly ripe for this

new wave of transformation. While the industry has made tremendous strides in the last few years creating a digital or online mortgage application process, the back-office is primarily still manual, requiring human review, intervention and approval for each and every loan. With up to 100 separate tasks required to complete a loan application, no wonder it's hard for lenders to provide a mortgage decision quickly," states Steve, Founder & President of AI Foundry.

By leveraging the best-in-class artificial intelligence and user-guided machine learning capabilities, AI Foundry combines the best possible technology and data intelligence to digitally transform a bank's end-to-end mortgage process. "With the Internet, speed, information, and customer experience come together to form the holy grail. Our Actionable Intelligence technology organizes customer's loan application information and documents to enable quick decisions," said Steve. Through its technology, AI Foundry delivers an end-to-end Agile Mortgages platform that helps banks integrate the traditionally manual back office processes with the front office customer experience portals to create a "digital one office."

"There are three key trends that are having a significant impact on how mortgages are originated in the U.S. They are:1) the rise and fall of off-shoring the origination process; 2) the sea-change in the use of new technology with the precipitous decline in "old school" OCR technology and 3) the notion of the 'instant mortgage,'" said Steve. Our interview focused on how AI Foundry's Agile Mortgages solution impacts each of these trends and learned what banks can do today to effect change in their organizations.

The Rise and Fall of Off-Shoring
Earlier this year, independent mortgage banks and mortgage subsidiaries of chartered banks reported a net loss of $118 per loan originated in Q1 '18,

according to the MBA's Quarterly Mortgage Bankers Performance report. This is down from a gain of $237 per loan in Q4 '17. "In Q1 '18, falling volume drove net production profitability into the red for only the second time since the third quarter of 2008," said Marina Walsh, MBA vice president of industry analysis. "While production revenues per loan increased in the first quarter, we also reached a study-high for total production expenses at $8,957 per loan, as volume dropped." Historically, from 2008 to 2018, loan production expenses have averaged about $6,224 per loan.

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Deploying the latest AI along with machine learning and vision-based classification technology will help radically transform the lending process and bring transparency and trust back to the customers

So, what are the options for lenders to increase loan volume and make a profit? One trend has been to utilize offshore resources to process the mortgage application data. The data and sometimes documents are sent to a business process outsourcing (BPO) organization offshore to read the documents, extract the data and input the data into the organization's loan origination system (LOS). This offshoring of the process

saves on labor costs, but it is fraught with issues including data privacy and risk and compliance oversight concerns.

The better long-term trend is to bring the work back onshore but utilize technology to save time and money, reduce the real threat of data breaches and mitigate the risk and compliance worries.

"By leveraging AI Foundry's Agile Mortgages solution, companies have been able to use leading-edge AI, machine learning and vision-based classification technology to classify loan applicant documents, extract the correct data elements and push them directly into the LOS which typically is the system of record for lenders," states Butler. The AI Foundry solution can then immediately leverage this data by directing this data to a workflow which determines if a software agent or audit rules workflow should be invoked. Being able to analyze data through the audit workflow quickly enables loan processors to see the status of the loan and ensure that all data has been submitted by the borrower. "Using the AI and vision-based classification technology, the Agile Mortgages solution is intuitively analyzing the data and enabling the underwriters and loan officers to make faster, more informed decisions," said Steve.

The Sea-Change in Use of Technology
The second key trend is the realization that no matter what, lenders cannot take technology out of the mortgage loan process. In fact, using leading-edge technology is even more important than ever. Many lenders have utilized technology for various parts of the process and have aging core technology as part of their technology stack. In today's fast-paced technology world, significant enhancements and even quantum leaps in technology are happening daily. Those organizations who fail to keep pace and rely on "old school" technologies, such as OCR and aging core systems have quickly seen their competitive advantage

disappear. "Many customers we talk with today are very interested in how AI, machine learning and vision-based classification technology can radically change their operations. They are telling us point blank, 'if we are going to upgrade our technology stack, we need a sea change, not just incremental feature/function enhancements to our existing technology,'" says Butler. "We hear this mandate repeatedly as we discuss how our Agile Mortgages solution is different than what's currently in the market."

The So-Called "Instant Mortgage"
"You've got to hand it to Quicken Loans. The launch of Rocket Mortgage in 2016 was a game changer, quipped Butler." "Doing for mortgages what the Internet did for buying music, plane tickets and shoes is a great idea. There's just one problem. The back-end process for qualifying an individual for a mortgage is much more complex. Lenders know all too well that it's not as easy as buying music online. It's actually much harder and much more complex," says Butler. AI Foundry's Agile Mortgages solution takes a different approach and uses AI technology to take the documents an applicant submits, classify them according to document types (W-2s,

bank statements, driver's licenses, etc.) and then extract the relevant data from those documents automatically. "The Rocket Mortgage model is much more, if not entirely manual," says Steve. In addition, "the Agile Mortgages solution eliminates the last mile technology gap with its integration into the market leading LOS, Encompass from Ellie Mae. It targets the data fields in Encompass and automatically puts the data in the right places, which saves a great amount of time for the banks," explains Butler. Through this seamless LOS integration, the end-to-end automation provides many benefits to lending operations including efficiency, lower origination costs, improved quality control, better borrower experience, and ultimately higher production performance.

So, What's Next?
Our interview concludes by Steve reiterating the importance of embracing disruptive technology. "Deploying the latest AI along with machine learning and vision-based classification technology will help radically transform the lending process and bring transparency and trust back to the customers. Lenders consistently use the phrase 'manufacturing a mortgage' when they speak to us. They see it as a serial process, like manufacturing a car on an assembly line. What they are starting to realize is that if they use these disruptive technologies, they can transform the serial process into shorter parallel processes. The net effect is that customers could actually get a mortgage loan approved in hours or a few days, automatically. That's truly reimagining how a mortgage is manufactured," ends Butler.

Company Profile
Having carved a unique niche in the mortgage landscape, AI Foundry aims to expand its position in different segments of the financial services market, such as commercial lending and small business banking. **BC**