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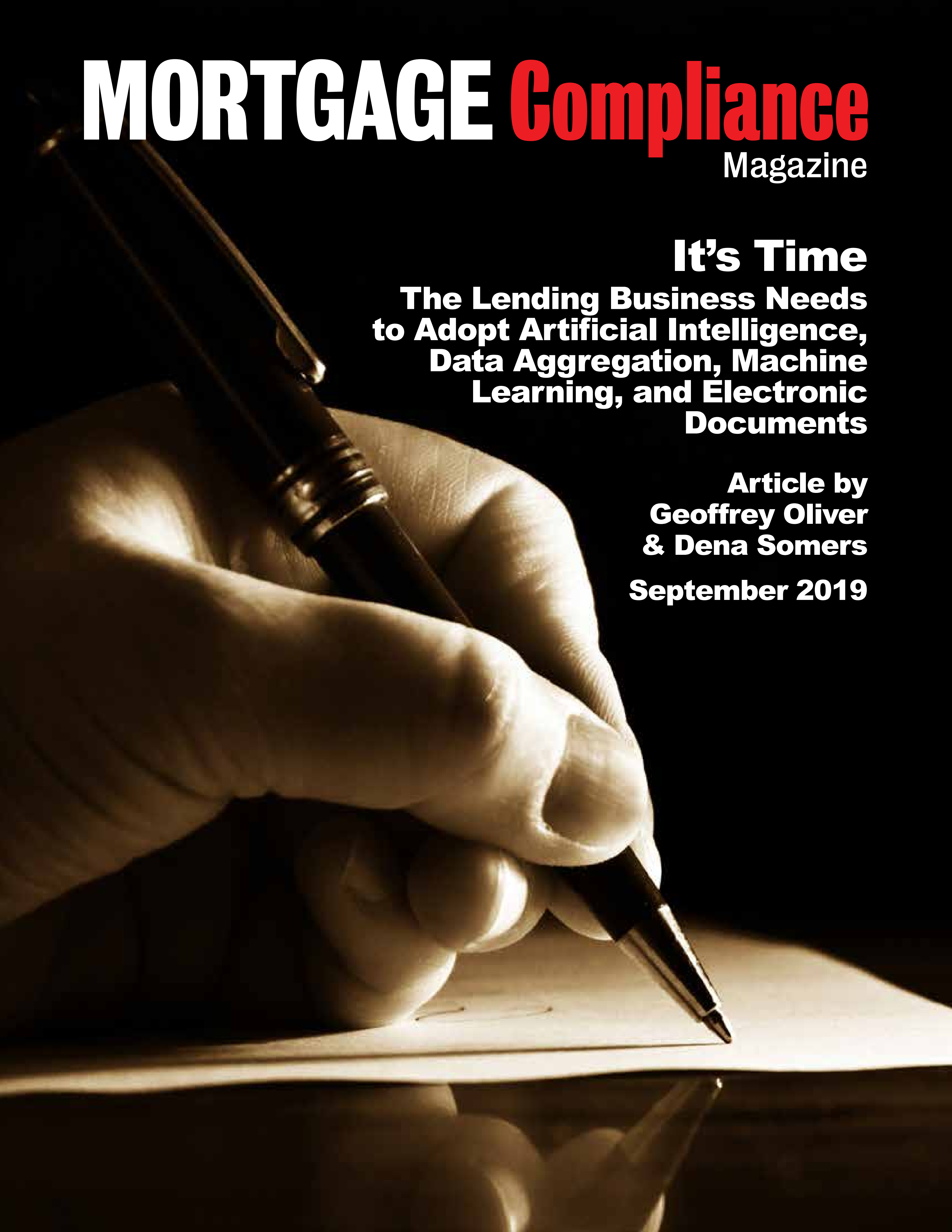

It's Time

The Lending Business Needs to Adopt Artificial Intelligence, Data Aggregation, Machine Learning, and Electronic Documents

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The Lending Business Needs to Adopt Artificial Intelligence, Data Aggregation, Machine Learning, and Electronic Documents

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The impact of technology on the delivery of financial services lending/credit products is impossible to ignore. Unless you’ve been living under a rock for the last few years, you must know something about existing technology, such as artificial intelligence (AI), machine learning (ML) and electronic signatures, which is driving the future of lending and loan servicing. Loan transactions can be conducted online using automated processes using predictive credit models, real-time customer data aggregation, and advanced payments technologies to offer consumers and/or businesses a credit decision within a matter of seconds. Notwithstanding the customer demand for faster and more informative lending transactions, using today’s AI, data aggregation, machine learning, and electronic signatures have to be fully adopted in order to meet the millennial’s expectations, decrease cycle times, reduce process redundancy, and lower costs.

Early adopters of digital innovation have long understood that market forces, both technological and generational, reinforce the need to look for new opportunities and change their lending and loan servicing processes to meet customer demand. Customers want faster access and more decision tools to help with their lending needs. They want better customer service and more payment options. Traditional lenders should beware! Fintech companies offer unparalleled solutions in the lending, servicing, payments, and data security sectors by leveraging technology to improve efficiency (especially in the exchange or gathering of credit data), increase profits (lower cost to originate and/or service) and significantly improve customer experience (meeting the millennials expectations). The largest mortgage lender in the U.S. today is a Fintech company.

ARTIFICIAL INTELLIGENCE, BIG DATA, AND MACHINE LEARNING

Artificial intelligence is a highly tailored technology that performs specific tasks which are suitable to the customer because the process is built using the gathered intelligence about how the customer wants to execute the process. For example, AI enhances the technology to perform in an intelligent way that the customer prefers. A subset of AI, is machine learning, which is the design of "learning algorithms" that can access large data sets to make intelligent predictions about the output values based on historical transactions and customer selections. Both are cognitive tools used across the financial services industry to develop deep domain-specific expertise and then automate related tasks. In practice, leading companies use AI to improve efficiency, enhance data accuracy, and align their process with the customer experience expectations. Artificial intelligence has countless applications in the financial services industry, especially the mortgage industry that has been slow in realizing the benefits of such technology. We agree with many of the tech firms that predict AI will transform nearly everything about the way the mortgage lending business is done. Collection of borrower data by far is the single biggest change that will change the lending, loan sale or securitization, and loan servicing. No more faxes, no more paper, no more individual requests for data, and no more customers complaining about documents being sent multiple times. The impact on the cost to originate or service a mortgage will be reduced significantly for those companies able to adopt such change.

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Learning algorithms "get better" as a result of their mistakes by improving the accuracy of predictive analytics. The data and process will be improved because it provides companies with powerful insight into customer behavior, process, and advanced analytics in credit performance. For example, would a borrower who is at risk of default be buying home improvement materials? This example clearly suggests that the borrower is hoping to stay in the house. AI and learning algorithms can identify such activity and change how the loan servicer handles such customer. Other advancements in the use of AI have been noted in fraud detection across the banking sector. Fraud detection is among the fastest areas of AI adoption in the banking industry. When used alongside anti-money laundering (AML) software systems, AI is used to learn the behavior of customers to predict possible fraud, especially in the mortgage arena. AI technology analyzes bank transactions to identify anomalous and/or suspicious activities to create appropriate rules and thresholds. AI also enables lenders' systems to learn from new and updated sources to keep pace with a changing and more dynamic risk model; for instance, identifying the newest ways that borrowers may be committing fraud.

Much like fraud prediction, artificial intelligence can be used by mortgage lenders as a tool for analyzing/sizing credit risk and predicting losses. Mortgage lenders leverage AI to extract and analyze information from large volumes of data to predict patterns and make assessments of risk more efficiently and more accurately than traditional underwriting methods. Most importantly, these AI tools can be used at the point of loan application instead of waiting for the underwriter to get the file. Unlike traditional models, which focus on just a handful of credit attributes, machine learning allows lenders to analyze thousands of data points in real-time to identify risk. Such a tool can also help lenders who sell loans into the secondary market to identify loans that should be priced better due to lower credit risk. Profitability increases as a result of better priced loans, instead of the "box-car pricing" used today for all loans from a given lender, and lower loan losses. Early detection eliminates the credit risk or allows the servicer to mitigate such risk faster.

Machine learning and AI also mean enhanced customer experience during the mortgage process. AI can understand and solve a customer problem faster. AI can also recognize expressions and emotions given various data/transaction information. ▻

Leading banks are using chatbots and virtual assistants to build relationships with customers and to respond to common customer service inquiries. Access to social media and purchase transactions capture borrower perspective that will help a servicer in identifying what the borrower is planning to do, like the home improvement purchases. Other companies are using AI to automate the customer engagement process.

AI biometric technologies are used for security and access controls across the banking industry. Biometric technology is the use of physical characteristics to identify security through the use of borrower identifiers, such as fingerprints and voice to protect and authenticate customer identity. Lightning-fast identity verification is a game-changer for the banking industry. Experts predict that biometrics will be the predominant source of customer authentication across all major banking channels in the near term. As more banks adopt biometric security measures, mortgage lenders are expected to follow suit.

The government is already experimenting with AI in the mortgage sector by leveraging big data and machine learning. Promoted as an end-to-end technology solution, Fannie Mae launched Day One Certainty and Freddie Mac launched Loan Advisor Suite to automate collateral valuations, validate data used during the loan production process, and use any historical borrower performance data. Both entities anticipate that lenders will receive real-time risk assessment feedback and information leveraging the power of big data and advanced analytics. In addition to improved operational efficiency, utilization of Freddie Mac's origination tool offers lenders opportunities for representation and warranty relief. In certain circumstances, lenders are relieved from loan repurchase due to appraisal defects, a powerful incentive in its own right.

Default servicing represents another area where machine learning and AI can help mortgage companies automate decisioning. Emerging Fintech firms have launched software solutions aimed at improving efficiencies in the collections, loss mitigation, and default processes. These platforms provide better information to evaluate loss mitigation options by analyzing past performance and predicting future performance. The benefits of ML-driven processes include lower delinquencies due to earlier intervention (using AI data about the borrower's financial status not just their mortgage payment status), lower default losses by being able to identify which borrowers will be more "open" to modification or other loss mitigation actions, and identifying which loss mitigation activities result in higher/lower success given various scenarios, etc. In all cases, the loss mitigation and default processes are structured based on proven results and not just one menu to pick from, hence more efficient processing occurs. Overall, ML applications drive new and possibly different risk management strategies by having more accurately predicted borrower defaults.

It's apparent that AI and ML are the future of banking and consumer financial services especially in the mortgage lending and loan servicing arena.

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