

July 1, 2021

Via eRulemaking Portal

Chief Counsel's Office
Attention: Comment Processing
Office of the Comptroller of the Currency
400 7th Street SW, Suite 3E-218
Washington, DC 20219

Ann Misback, Secretary
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue NW
Washington, DC 20551

James Sheesley, Assistant Executive Secretary
Attention: Comments – RIN 3064-ZA24
Federal Deposit Insurance Corporation
550 17th Street NW
Washington, DC 20429

Comment Intake
Bureau of Consumer Financial Protection
1700 G Street NW
Washington, DC 20552

Melane Conyers-Ausbrooks
Secretary of the Board
National Credit Union Administration
1775 Duke Street
Alexandria, VA 22314

Re: Comments Regarding Use of Artificial Intelligence and Machine Learning – Docket ID OCC-2020-0049; FRB Docket No. OP-1743; FDIC RIN 3064-ZA24; Docket No. CFPB-2021-0004; Docket No. NCUA -2021-0023

To whom it may concern:

The Electronic Transactions Association (“ETA”) respectfully submits comments in response to the Board of Governors of the Federal Reserve System, Bureau of Consumer Financial Protection, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency (“Agencies”) request for information (“RFI”) on the use of use of innovative technologies and techniques, such as those involving artificial intelligence and machine learning (“AI/ML”).

ETA agrees with the Agencies that AI/ML applications can offer improved efficiency, reduce cost for financial institutions, as well as benefit consumers and businesses. Specifically, AI/ML can identify relationships among variables that may not be revealed by more traditional techniques when it comes to using alternative data to underwrite business loans or flag suspicious, fraudulent activity on a consumer’s account.



Over the past decade, financial institutions and financial technology companies have transformed the financial landscape through the introduction of new technologies that expand financial offerings for borrowers, lower costs, improve financial and risk management, and increase transaction security. The unprecedented recent advances in technology and the use of both traditional data and alternative data, including efforts to digitize data that previously required time and labor-intensive manual reviews, continues to show great benefits for underserved consumers, as well as the broader economy. Advanced data analytics can be used to effectively match products and services to consumers and create opportunities for traditionally underserved communities. Additionally, the payments industry has developed AI/ML tools in to fight fraud, protect consumers, and certify the integrity of the payments ecosystem. These efforts have been remarkably successful in reducing fraud while ensuring that consumers have access to fast, reliable, and safe payment options.

Considering the tangible benefits of such technological advancements, ETA urges policymakers to remain thoughtful and forward-thinking in how to best support industry's on-going efforts to provide opportunities for all consumers and small businesses to access and benefit from innovative financial products and services. Efforts by policymakers to discuss uses for alternative data should be done collaboratively with industry participants and with careful consideration.

Who We Are

ETA is the leading trade association for the payments industry, representing over 500 companies that offer electronic transaction processing products and services. ETA's members include banks, mobile payment service providers, mobile wallet providers, money transmitters and non-bank FinTech companies that provide access to credit, primarily to small businesses, either directly or in partnership with other lenders. ETA member companies are creating innovative offerings in financial services, revolutionizing the way commerce is conducted with safe, convenient, and rewarding payment solutions and lending alternatives – facilitating over \$22 trillion in payments in 2019 worldwide.

General Comments on RFI

Benefits of AI/ML for Business Owners

Small businesses are the backbone of the American economy, creating more than 60 percent of net new jobs and employing approximately half of the workforce in the private sector.¹ Unfortunately, many small businesses are unable to access traditional credit for purposes of growing their businesses due, in part, to high search, transaction, and underwriting costs.² Fortunately, for small businesses, ETA's members are expanding access to credit using both traditional data sources and non-traditional data sources such as past transactions and back-end financial data (taxes, receivables, etc.). AI/ML techniques enable lenders to better understand the credit risk of an individual small business and provide it with targeted funding in a timely manner with a flexible repayment schedule, and often without requiring collateral.

Online small business lenders are willing to provide small businesses with small loans (typically less than \$250,000) and short terms that are well suited for their day-to-day operating needs or

¹ Federal Reserve Banks of New York, Atlanta, Cleveland and Philadelphia, Joint Small Business Credit Survey Report, 2014 at p. 4 (released February 2015); Karen Gordon Mills, Brayden McCarthy, The State of Small Business Lending: Credit Access During the Recovery and How Technology May Change the Game, Harvard Business School Working Paper 15-004 (July 22, 2014) at p. 3.

² 80 Fed. Reg. 42866, 42867 (July 20, 2015).

short-term use cases. Using sophisticated, AI/ML data-driven algorithms to assess the creditworthiness of potential borrowers, lenders are able to reach funding decisions quickly and efficiently and provide access to capital to approved borrowers expeditiously.³

These data-based processes are creating new opportunities for borrowers and lenders. The platforms used by ETA members are agile, nimble, scalable, and can work in tandem with related financial service offerings. For example, online small business lending programs can be synced with payment platforms to assist in underwriting decisions in nearly real-time and provide convenient repayment options for small businesses. FinTech platforms have also been used by Community Development Financial Institutions (“CDFIs”) and other non-profit community lenders and development organizations to help increase efficiency in the lending process and identify creditworthy small businesses.

In addition to partnerships with CDFIs, online small business lenders are collaborating with financial institutions to provide small business loans. Because AI/ML platforms provide a very efficient and cost-effective mechanism for underwriting smaller commercial loans, FinTech companies are able to provide a valuable service to traditional financial institutions in order to expand market reach.

Benefits to Consumers and Small Businesses

According to a recent study, online lending products, which use AI/ML modeling techniques, have the potential to boost economic activity in the U.S. by approximately \$698 billion or 3.98 percent of the country’s GDP.⁴ These modeling techniques can be applied to small business lending to solve significant problems with obtaining traditional business loans. For example, thirty percent of businesses that responded to a survey by the Federal Reserve Bank of New York reported having insufficient collateral as the primary reason they were unable to obtain funding.⁵ Lifting collateral requirements, has been shown to increase access to credit, which has led to increased hiring and aggregate fixed assets for the businesses receiving funding.⁶

Use of AI/ML saves time for owners of small businesses, which is one of their most valuable resources. The average value that small business owners estimate an hour of their time to be worth is \$170.⁷ Small business survey respondents have reported that they spend an average of 24 hours researching and completing credit applications.⁸ Access to more timely information for lenders through use of alternative data, AI/ML, and automated processes means quicker decisions can be made for borrowers, allowing the borrower to put the funds to use quickly by investing in its business.

Using AI/ML to Fight Fraud in Payments

AI-based ML technologies are increasingly being used by businesses and payment services to detect and prevent potentially fraudulent payments. AI/ML is being applied alongside existing fraud detection

³ State of Small Business Lending at p. 6-7; Scott Shane, Why Small Businesses Are Turning to Online Lenders (April 15, 2015), available at <http://www.entrepreneur.com/article/245075>.

⁴ Filling the Gap, Usman Ahmed, Thorsten Beck, Christine McDaniel, Simon Schropp, Innovations, Volume 10, number 3/4, p. 36 (2016).

⁵ Federal Reserve Banks, Joint Small Business Credit Survey.

⁶ Mauricio Larrain and Murillo Campello, Enlarging the Contracting Space: Collateral Menus, Access to Credit, and Economic Activity, Review of Financial Studies, November 2015.

⁷ Online Lending Drives Main Street Small Business Growth & Satisfaction, Edelman Intelligence (March 2016).

⁸ Federal Reserve Banks, Joint Small Business Credit Survey.

systems, which typically use manually created rules and other techniques, such as flagging unusually large withdrawals. ML differs from these traditional techniques in that it analyzes large amounts of historical transaction data to build a model that can identify patterns associated with fraudulent transactions. The system then uses this model to scan incoming payments in real time and flag potentially fraudulent ones.

ML is becoming increasingly important. One reason is the increasing volume of e-commerce and other remote “card not present” transactions, in which immediate approval is often required yet the purchaser’s physical card is not present for additional verification.

Another reason for the growing importance of ML in fraud detection is the worldwide shift to immediate payment systems, which require correspondingly faster identification of potentially problematic transactions. Yet another is fraudsters’ ability to continually change their tactics to evade anti-fraud controls; fraud-detection systems must therefore continuously adapt to keep up.

ML is suited to addressing fraud in payments solutions in part because of the feedback loop inherent in payments. When fraud attempts succeed, the bad transactions are continuously reported back to the payment network and can be fed into risk-scoring algorithms along with all other data associated with each transaction.

This means ML systems can analyze vast amounts of historical data to identify patterns associated with fraud. ML technology is capable of taking into account many more data points than would be possible with manual methods alone, including detailed patterns of behavior associated with specific accounts. This may help the technology make a more accurate determination of whether a payment is likely to be fraudulent. Faster, low-cost computers and data storage make it possible for ML systems to process high volumes of transactions in real time, making decisions based on complex criteria in a fraction of a second.

By helping businesses and payment services more accurately spot potential fraud, ML may provide several benefits. These go beyond reducing the losses that are directly due to fraudulent transactions; especially when selling online, businesses may be likely to incur additional charges, including fees, for payments that were accepted but subsequently determined to be fraudulent. A LexisNexis study found that every dollar of fraud losses in 2016 cost merchants a total of \$2.40 in chargebacks, fees, and merchandise replacement.

Some ML systems can be used directly by businesses to scan transactions before they are submitted to payment networks, potentially reducing the incidence of such chargebacks. If ML decreases the number of times that a payment service incorrectly identifies valid transactions as potentially fraudulent (sometimes known as “false positives”) it may also reduce lost sales, customer frustration, and the associated potential reputational damage to the seller.

Additionally, an accessible, regularly updated, and substantive database provided by law enforcement that also includes a framework for financial institutions to share their data would vastly improve controls to detect and fight crime. As organized crime and criminals become more sophisticated and the amount of data available to financial institutions through their AI/ML tools continues to increase, the partnership with law enforcement will be able to leverage their wealth of data and detect potential criminal activities even more efficiently.

Specific Comments on RFI Questions



Question #3: [Explainability] For which uses of AI is lack of explainability more of a challenge? Please describe those challenges in detail. How do financial institutions account for and manage the varied challenges and risks posed by different uses?

Comments

The more complex the AI model, the more challenging explainability becomes. For example, deep learning ensemble models not only pose a challenge for explaining decisioning in a single network, but also how the outputs of different networks come together and are prioritized in the final decision. However, in applications with large and complex datasets, these models provide the best performance. In these instances, the challenge becomes weighing the trade-off between explainability and performance.

Managing these differences requires setting a minimum standard for explainability by application and optimizing the performance given those requirements. For example, in the credit space, explainability is necessary to ensure fairness across demographics and to be able to provide meaningful adverse action codes to customers. However, in fraud, sacrificing performance for explainability would be a disservice to a company's customers, who are being protected by the use of complex algorithms. Until there is more specific regulatory guidance on explainability requirements in the non-credit space, companies might be hesitant to use these more complex and higher-performing models, ultimately allowing more fraud and other types of crime to be committed in the financial system.

Will there be a differentiation in Regulatory guidance on AI use between bank and non-bank financial service companies? Credit-related business activities for non-bank companies are required to meet existing Equal credit and Fair Lending Act laws. Will further guidance be provided for non-credit AI uses such as fraud detection, marketing, or customer service?

Question #16: [Additional considerations] To the extent not already discussed, please identify any additional uses of AI by financial institutions and any risk management challenges or other factors that may impede adoption and use of AI.

Comments

As various AI applications have different levels of adverse impact associated with them, a risk-based regulatory framework is recommended for AI risk management. For example, credit underwriting could be a high-risk AI application when considering fundamental human rights. Other AI uses related to transaction fraud detection could be limited risk because the purpose is to protect the customers and ensure the integrity of the payment system.

In addition to explainability, regulatory guidance should be provided for the fairness and data quality requirements of AI applications by risk-level. There is currently no clear guidance on fairness assessments for non-credit applications. Without that clarity, companies may hesitate to maximize AI's benefits by using more advanced modeling techniques in areas such as fraud detection, financial crime monitoring, and cybersecurity.

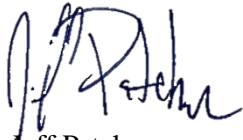
Is there a plan for Regulators to provide a risk-based AI guidance based on different AI application use and the adversity of customer impact?



Use of AI/ML helps to provide for greater access to credit, predictions, fraud prevention, more efficient information gathering and underwriting, and ultimately lower costs for consumers and businesses. Using AI/ML can help lenders safely and responsibly extend credit to the many small business owners who do not have the time or are eligible for a traditional loan. Alternative modeling techniques, powered by AI/ML, can help to review underlying disparities in traditional credit markets and help companies serve creditworthy consumers from any background and provide access to credit for those that are currently underserved. Furthermore, financial crime attempts against institutions will likely never cease completely but developing and deploying AI/ML tools fight fraud will go a long way toward making these attempts less likely to succeed.

ETA appreciates the opportunity to provide input on this important issue. If you have any questions, please contact me or ETA's Senior Vice President of Government Affairs, Scott Talbott at stalbott@electran.org.

Sincerely,



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