



PANEL IV: Artificial Intelligence and Bank Enforcement: A Sword or a Shield?

***Moderator:** Joseph Lynyak, III, Partner, Dorsey & Whitney*

Special guest speakers:

Brian Clark, CEO and Co-Founder, Ascent Technologies

Natasha Duarte, Policy Analyst, Center for Democracy and Technology

Timothy J. Nagle, Associate General Counsel and Chief Privacy Officer, US Bank



Artificial Intelligence and Bank Enforcement— A Sword or a Shield???

**Dorsey & Whitney LLP
Federal Enforcement Forum
December 6, 2017**



Agenda



- AI (and FinTech are the new buzzwords)
- At best—fuzzy terms and meanings
- AI offers the possibility of significant assistance for bank compliance and enforcement

Speakers

Moderator—

Joseph Lynyak
Partner—Dorsey & Whitney LLP

Speakers—

Timothy J. Nagle
Senior Vice President
US Bank
Associate General Counsel
Chief Privacy Officer

Brian Clark
CEO and Co-Founder
Ascent Technologies

Natasha Duarte
Policy Analyst
Center for Democracy and Technology

Why Is Your Company Involved in AI?



- What is your role?
- What do you mean by AI?
- How does the Bank believe AI can assist it?
- What is the business advantage that Ascent sees in its technology?

What Products and Services Can be Benefited by AI?



- How is AI development organized at the Bank?
- Is there an outward-facing benefit as well as an internal-facing benefit?
- How is Ascent approaching its product design—is there direct interaction with potential bank clients and/or regulators?

Regulatory Pressure



- The OCC is very active in promoting innovative FinTech—AI included
 - Is there an approach you have observed by bank regulators in this arena?
- Innovation can be sidelined by regulators not embracing new tools such as AI and Fintech—how are you addressing this risk?
- Are you educating the regulators or vice-versa?

Is AI a Sword or a Shield?



- In the examination and enforcement context—where does the greatest promise of AI present itself?
 - Accuracy of compliance data?
 - Fewer FTEs?
 - Responding/defending regulatory criticism?

Areas of Potential Concern



- Big Data and privacy
- AI data ownership
- AI employed for underwriting and fair lending
- IP ownership and vendor management
- How do you analyze and test for these concerns?
 - OCC’s Guidance: New, Modified, or Expanded Bank Products and Services (October 20, 2017)
 - How should a risk management program be implemented?

QUESTIONS?



Considerations Regarding AI and Related FinTech Legal Issues

Joseph T. Lynyak III
Dorsey & Whitney LLP
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Agenda

- AI and FinTech—
 - Defining the concepts
 - Identifying the opportunity for banks
- Challenges to—
 - Banks
 - Regulators
 - AI and FinTech companies
- Focusing on several legal practice issues for banks

Defining the Concepts

- AI and FinTech are mushy buzzwords that roughly relate to electronic applications and systems used by financial intermediaries
 - Proponents believe they are panaceas
 - Do the possible benefits support licensing obligations?
 - Are they really new?
- The buzz words abound—
 - FinTech
 - P2P money transfers and online/offline payments
 - P2P lending
 - Authentication security
 - API
 - AI
 - Providing regulatory compliance
 - Cloud-based
 - Progressive degrees of AI

Defining the Concepts

- Big Data
 - Extremely large data sets that may be analyzed computationally to reveal patterns, trends and associations, especially relating to human behavior and interactions
 - Every click on the internet generates one more piece of “big data”
- Machine Learning
 - The application of artificial intelligence that provides systems the ability to automatically learn and improve from experience without being explicitly programmed



Data Sources

- Types of data that can be used—
 - Payment history:
 - Utilities
 - Pay TV
 - Mobile phones
 - Other monthly services
 - Rent payment
 - Residential history
 - Education
 - Account History w/ FI
 - Patterns of purchasers
 - Schools attended
 - Social circle
 - Spelling and grammar
 - Mobile phone usage data

Identifying the Opportunity

- What does a particular FinTech or AI application or product accomplish?
 - Does it enhance the current delivery of an existing financial service?
 - Bots
 - Smart contracts
 - Does it eliminate from the financial transaction process the need for human intervention and costs?
 - Besides cost savings, does a FinTech or AI application provide other economic advantages?
 - Contractual liability relief

Products and Services Offered

- “Marketplace lending (P2P lending, Lending Club Corp., Prosper)
- Alternative payment systems
- Mobile payments
- Consumer lending
- Block chain and distributed ledger
- Virtual currencies
- Personal finance management / robo-investing or saving

Possible Business Models

- Hold risk on FinTech or AI firms' own balance sheets
- Form partnerships with financial institutions
- Interact with depository institutions through the payment system
- Form partnerships with small community banks and credit unions
- Connect capital from institutional investors to individual borrowers
- Sell loans or securities to financial institutions

Challenges—Banks

- Reputational risk
 - Reliability of legacy systems
 - Demand for 6-Sigma performance
- Economic viability of FinTech and AI companies
- Vendor management
- Intellectual property
- Privacy



**PRESERVING A
COMPETITIVE
POSTURE—NOT BEING
LEFT IN THE DUST**

Challenges—Regulators

- The Obama Administration's “Framework for FinTech”—
January 2017
- Principles—
 - Think broadly about the financial ecosystem
 - Start with the consumer in mind
 - Promote safe financial inclusion and financial health
 - Recognize and overcome potential technological bias
 - Maximize transparency
 - Strive for interoperability and harmonize technical standards
 - Build in cybersecurity, data security, and privacy protections from the start
 - Increase efficiency and effectiveness in the financial infrastructure
 - Protect financial stability
 - Continue and strengthen cross-sector engagement

Challenges—Regulators

- Bank regulators—
 - Starting from safety and soundness perspective
 - But have specifically cautioned that banks are not relieved from their extensive vendor management responsibilities
 - Recognizing that small FinTech and AI companies cannot comply
 - This approach may hinder joint ventures
- Regulators have issued numerous position papers—
 - The CFPB’s Project Catalyst
 - <http://www.consumerfinance.gov/about-us/project-catalyst/>
 - The OCC’s Recommendations and Decisions for Implementing a Responsible Innovation Framework
 - <https://www.occ.gov/topics/bank-operations/innovation/recommendations-decisions-for-implementing-a-responsible-innovation-framework.pdf>
 - OCC Guidance—New, Modified, or Expanded Bank Products and Services
 - <https://www.occ.gov/news-issuances/bulletins/2017/bulletin-2017-43.html>
 - [CFPB, Request for Information Regarding Use of Alternative Data and Modeling Techniques in the Credit Process](#)
 - [FTC, Big Data: A Tool for Inclusion or Exclusion?](#)

Challenges—FinTech and AI Companies

- Will startups survive?
- Are many companies solutions looking for problems?
 - Scalability and nimbleness
- Developing standards for the marketplace
 - R3
 - Utility Settlement Coin
 - Global Payments Steering Group
- Compliance capabilities
- Intellectual property concerns
- Corporate representation

Legal Concerns

- Intellectual property
- Corporate/Contractual considerations
- Consumer protection regulation, privacy, and fair lending
 - Numerous issues but not included in this presentation

Intellectual Property

Intellectual Property in FinTech

- IP relevant to FinTech and AI includes—
 - Patents
 - Copyrights
 - Trade secrets
 - Trademarks, and
 - Unfair Competition
- As in most fields, IP is about identifying and protecting the intangible rights held by an owner
 - Innovations in software, data and (possibly) hardware used in AI and FinTech may include IP
 - Innovators expect to “own” – have exclusive rights to – technology they create; protection encourages innovation (?)
 - For TMs, other brand IP, FinTech and Ai are no exceptions

Intellectual Property in FinTech

- Patents for business have an inconsistent history—
 - No financial patents in past, because new approach viewed as a business method—not technology
 - Technology became intensively used in finance with software tools and internet for communication, need/ability to handle massive data
- The *State Street* case in 1998 opened the door to “financial method patents” but now largely closed
 - Broadest form of protection—no copying required
 - Industry backlash on scope, patent trolls and litigation
 - The open source movement
 - Scotus rulings in *Bilski* 2010 and *Alice* 2013 addressed “abstract ideas”
 - Current patentability state of the law—
 - No ban on business methods, but requirement of specific, non-abstract improvement in technology
 - USPTO rejects all except high “technicity” innovations

Intellectual Property in FinTech

- Copyrights (work of authorship)—possible alternative for patented software—but does not protect:
 - Business methods
 - Broad ideas, and
 - Data/facts per se
- Trade secrets—often present and useful with software/data, but protection requires secrecy measures, corporate discipline
- Trademarks—protect branding but not technology
- IP of others—necessity of patent clearance and “clean” development”
 - FinTech and AI patents issued by the dozens pre *Bilski*
 - Enforcement now uncertain

Intellectual Property in FinTech

- When considering IP in a FinTech or AI situation—
 - Ownership of innovations starts with identifying the innovator/author
 - Hardware inventor
 - Software authors
 - Data author
- Ownership involving data is problematic—who is the author?
 - How is data created and collected?
 - Is possession by collector an indicator of ownership?
 - Is each source of collected data an author?
 - Data from analysis (*i.e.*, produced by AI) of collected data?
 - Related issue is control by person who is data subject
 - The intersection of GLB and consumer privacy
- Licensing of IP in order to utilize
- New Tech Standards: Open Source concepts vs. exclusive/proprietary
- Understanding tech’s implications requires understanding tech
 - Blockchain see <https://blockchainedu.org/learn/>
 - Risk: Changing “Trust boundaries”

Bank Corporate and Contractual Considerations

Bank Decisions for Developing AI and FinTech

- Banks and other financial intermediaries face a buy-versus-build decision (*i.e.*, internal development vs. licensing, SaaS or outsource)
 - Advantages of ownership—
 - Control
 - Security
 - IP Ownership
 - Branding
 - Disadvantages of ownership—
 - Cost
 - Speed to market (nimbleness)
 - Multiple internal stakeholders
 - Implementation risk
 - Operational risk

Bank Decisions for Developing AI and FinTech

- Advantages of licensing/outsourcing—
 - Lower initial cash investment
 - Reduced implementation risk and operational risk
 - Predictable fee structure
 - Potential ability to shift risk and liability to vendor
- Disadvantages of licensing/outsourcing—
 - Security compliance
 - Use of cloud storage and hosting
 - Control/development roadmap
 - Measuring operational performance (SLAs)
 - Ownership of IP
 - Vendor insolvency
 - Termination transition, etc.

Vendor Selection/Preliminary Issues

- Type of Technology Involved
 - Incremental
 - Transformative
 - Customer-facing
 - Back-office
 - Categories of data involved
- Type of Vendor
 - Larger, established
 - Newer, emerging
 - VC-backed
 - Service/exclusivity tied to equity investment
- RFP Process
 - Driven by business teams and focuses on functionality
 - Legal compliance often becomes involved late in process
 - Battle of forms for vendor services agreement

Negotiation - Key Contractual Issues

- Key Contract Terms are difficult to resolve easily—
 - Implementation/Launch Date
 - Firm commitment or “best efforts”
 - Milestone payments
 - Refund of prepayments for failure to meet launch date
- Operational Performance
 - Scope of contractual commitment (“Subject to terms and conditions of Agreement, vendor will make the identified services available to the Bank ...”)
 - Service level agreement and remedies
- Data security and data offshoring
- Vendor subcontracting
- Privacy—GLBA complexity

Key Contractual Issues

- Scope of indemnities
 - What does vendor cover
 - What does customer cover
- Limitations of liability
 - Disclaimers of consequential damages and exclusions
- Caps on liability
 - Trailing 12 months
 - Exclusions from caps
- Term
- Termination transition
- Vendor bankruptcy
- Dispute resolution

The OCC's Initiatives

- The OCC's proposals—
 - On October 26, 2016 the OCC established Office of Innovation to be the central point of contact and clearing house for requests and information related to innovation, with stated goals—
 - establishing an outreach and technical assistance program for banks and nonbanks
 - conducting awareness and training activities for OCC staff
 - encouraging coordination and facilitation
 - establishing an innovation research function, and
 - promoting interagency collaboration
 - In December of 2016, the OCC issued “*Exploring Special Purpose National Bank Charters for Fintech Companies*”
 - <https://www.occ.gov/topics/bank-operations/innovation/index-innovation.html>

The Proposed OCC FinTech National Bank Charter

- A special purpose national bank
 - Uninsured
 - Having National Bank Act preemption
 - Required to comply with all safety and soundness regulations
- The FinTech charter has been soundly criticized
 - By Congressional Democrats
 - By many banks
 - Why give a substantial competitive advantage to a non-bank with none of the compliance obligations?
 - Staff of the OCC have indicated that strict compliance with OCC regulations would be required
 - Most of which FinTech and AI companies can't or don't want to do...

Examples of FinTech and AI that May Succeed

- Collaboration with banks in joint ventures
 - Banks assuming control and compliance obligations
- Fannie Mae initiatives—
 - Appraisals
 - Title
 - Waiving origination representations and warranties
- Rocket Mortgage
- Aberoon—
 - 50% reduction in false red-flags for AML compliance
- International trade financing
- The Asian/African payments alternative

QUESTIONS?

Contacts



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Joe Lynyak is a financial services partner in Dorsey & Whitney's Financial Services Practice. Focusing his practice on the regulation and operation of financial service intermediaries, he provides counsel on strategic planning, application and licensing, legislative strategy, commercial and consumer lending, examination, supervision and enforcement and general corporate matters. He has extensive expertise across a comprehensive range of issues before federal and state regulatory agencies such as the Federal Reserve Board, OCC, FDIC CFPB, SEC, FTC and California and New York Banking Departments. Mr. Lynyak's representative clients include foreign and domestic banks, savings associations, holding companies and mortgage banking companies. He can be contacted via email at Lynyak.joseph@Dorsey.com or at 310.386.5554.

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