The Robotification Of Banking:
Why Artificial Intelligence Is Really Smart
71 percent of bankers think AI will have a huge impact on the financial services industry over the next 10 years, according to a survey by Synechron and TABB Group.

Once the stuff of sci-fi movies and books, artificial intelligence (AI) is quickly becoming a reality. One thing is quite clear: AI has transformative potential for most if not all industries, including banking.

A recent survey conducted by Synechron and TABB Group found that over 71 percent of companies believe that AI will be a hugely important technology in financial services over the next 10 years. The same survey found that 30 percent of companies already have deployments in AI. According to Gartner, by 2018, 40 percent of outsourced services will leverage smart machine technology. Fifty percent of the fastest growing companies will have fewer employees than instances of smart machines. Additionally, $500 billion of equity value will be created by leveraging virtual talent to drive algorithmic business models.

This is why on a warm evening in April, Synechron gathered leading bankers, technologists and AI experts to a roundtable in Manhattan to discuss why the robotification of banking may have the transformative power we are all looking for.

“Dramatic change is needed in the banking industry and right now everyone is looking to see who will be the early adopters,” says Wade Murray, Managing Director of Innovation at Synechron. “The incredible potential of applying machine learning and artificial intelligence to banking will completely revolutionize the industry.”

Synechron is working with leading institutions to identify how machine learning and artificial intelligence can be implemented in ways that can solve major business challenges and deliver exponential value. Through its deep understanding of how banks and financial institutions work, Synechron is able to offer both strategic guidance and an execution roadmap.

Participating in the discussion was Adam Devine, the VP of Strategic Partnerships at WorkFusion, a firm that is automating high-volume manual work and optimizing human talent by pairing machine learning with online human intelligence. In his presentation, Devine paints an exhilarating picture of the immense power of what he calls “smart process automation” – a combination of robotic automation and cognitive automation.

“We enable people to do what they do best, and let machines pattern and automate,” he explains. “Smart process automation (SPA) reduces lower level manual work and improves service delivery, for even complex processes like mortgages. SPA is scaling rapidly and analysts predict it will replace labor arbitrage and transform enterprise operations.”

Smart Process Automation in Banking

This may seem deceptively straightforward, but don't be fooled – the application of SPA to banking can have tremendous impact. According to McKinsey, 85 percent of a typical bank’s 900+ processes can be automated. From KYC, to corporate actions, to e-invoicing – banks rely on hundreds if not thousands of mature and industry-specific processes that can be made more accurate, automated and efficient using SPA.

Fundamental to the success of SPA is machine learning, an important new alternative to scripting if/then rules. Think about the document process referred to earlier. Even processing a very simple document like an invoice involves a lot of decisions – does the invoice meet requirements? Has it been approved? What type of invoice is it? Machine learning combines cloud, big data and AI technologies to learn and improve by creating models and refining models.
SPA puts smart machines at the core of a process and uses human workers to train automation and handle exceptions. Cognitive automation learns by watching humans perform a task.

“What the cloud did for computing, SPA is doing for knowledge work,” says Devine.

Machine Learning Case Study – Human-In-The-Loop

Machine learning helps cut costs in big ways. For example, WorkFusion was able to achieve 100 percent compliance for a top 20 global institution’s invoice process while reducing operational cost. For this particular firm, only 10 percent of millions of invoices were reviewed due to capacity constraints. Each invoice required about five minutes of human work. Their legacy “optical character recognition” (OCR) solution delivered poor accuracy, roughly 35 percent.

WorkFusion created a human-in-the-loop OCR solution that improved accuracy to over 99 percent. Robotic automation was deployed for desktop user interfaces. Machine learning cognitive automation was deployed for categorization and extraction work. Exceptions were automatically escalated to humans for processes and algorithms were continuously optimized. At the end of the day, this financial institution experienced an automation rate of 80 percent, an accuracy rate of 99.6 percent and is projected to see a reduction in full-time employees by 55 percent.

In another instance, a global bank was able to achieve STP of standard settlement instructions with OCR and machine learning. This bank was receiving SSIs in high volume in varying formats. The bank had a team of 75 people that manually extracted SSI information that took 30 minutes per file at 98.6% accuracy. WorkFusion used OCR to convert documents and then used SMEs to extract data on the WorkFusion GUI. They trained algorithms on the SME Process to automate extraction and exceptions management. The outcome?

“What used to take 30 minutes per file went down to 30 seconds,” Devine said. “And they were able to reduce headcount by 80 percent. Even better? Ninety-eight percent accuracy went to 100 percent.”

How Do Banks Get Started With AI

Given the sheer potential of applying AI and machine learning to banking, the next question is: how do banks get started? Devine shared these pointers:

1. Learn – Know what “smart” really means and which vendors have it. Don’t “half-ass” process evaluation.
2. Plan – Start with clear business objectives across business units, establish strong program governance and create a center of excellence.
3. Deploy – Deployments will vary across different processes based on operational and technical characteristics. Use pilot results to establish aggressive production targets with vendors.
4. Optimize – Start with KPIs and live by them. And deploy staff like you mean it.

What Synechron Is Doing In AI

Synechron’s team of consultants can help firms understand how AI and machine learning can be applied to areas such as data entry or document processing or to areas of innovation such as tapping into Amazon Alexa or Facebook bots. “Much of our role is to combine our intricate knowledge of finance with our advanced technology backgrounds to identify how firms can efficiently and innovatively leverage the best of what technology like AI and machine learning have to offer,” notes Murray.

The “robotification” of banking may not look quite like robot tellers but it certainly could look like a profitable, efficient and scalable bank. The future of artificial intelligence is now. In the face of staggering challenges, banks should explore how AI can be applied to its numerous processes not only to save costs but to create a better bank. Perhaps then, and only then, will we witness the kind of real smarter banking that might result from artificial intelligence.