Harnessing advanced analytics techniques like artificial intelligence (AI) and machine learning (ML) is fast becoming business as usual for the banking sector, with those that don’t adapt risking being left behind.

This is the view of data specialist Chris Sifter, a principal at the accounting, consulting and technology firm Crowe, who says that the rapidly evolving field has the potential to
customer churn and customer attraction,” he says. Where banks once analyzed data to understand what has happened in the past, they are now increasingly leveraging AI to predict future behavior.

**A Deeper Connection With Customers**

According to Crowe’s research, banks now consider tools like AI and ML increasingly important, not only for everyday operational efficiency but also for gaining and retaining customers. A Crowe survey of bankers’ opinions on machine learning found that 89% felt **AI was a top priority**.

In banking, AI is shaping strategic agendas across organizations, from customer service enhancements and fraud detection to process automation and predictive analysis. Key to all these areas is AI’s potential to remove barriers between banks and their customers. For example, AI can sift through reams of customer correspondence via emails and online chats, isolating recurring complaints and tailoring operational changes accordingly. ML-trained algorithms can anticipate how likely customers are to engage with offers based on their spending habits. AI-enabled chatbots, meanwhile, can deliver bespoke customer service solutions at scale, while cutting down on resolution time.

“We’re talking about things like customer churn, customer attraction, how might you identify increased indicators around propensity to buy additional services and products through the bank, the likelihood they’re going to stay or take on other services,” Sifter says. “Those are the areas where there’s the most excitement.”

Organizations implementing AI are already seeing the benefits, he says, and the potential gains are massive. Here’s how three frontiers of AI are transforming the bank-customer relationship.

1. **Machine Learning: Preventing Customer Churn**

Data analytics as a foundation of banking is nothing new. But enhanced by machine learning, the analysis once performed by humans is not only exponentially accelerated, it’s also autonomous and infinitely more sophisticated, able to spot underlying patterns and predict what will happen in the future. As self-adaptive algorithms comb through information, they also get smarter, refining their processes and arriving at predictions of
models to target high-value customers who may be about to take their business elsewhere, cuing the bank to step in and take action to keep them happy and loyal, before it’s too late.

These same machine learning tools even offer insights on customer attitudes, drawing on intelligence gathered from customers via online and contact center interactions with the bank, making it possible to predict the type of life events that may impact their behavior, spending power or likelihood of becoming an unwanted churn statistic.

Those data-driven insights can also be a boon to segmentation, helping banks break down their customer base into highly niche segments based on behavior indicators and in turn target them with specific offers and strategies.

“A lot of what we’re seeing with machine learning focuses on predictive models, being able to analyze past behavior and then predict things such as future customer behavior, possible churn indicators and propensity to buy,” says Sifter.

2. Natural Language Processing: Chatbots Everywhere

By now, most consumers have encountered Natural Language Processing (NLP) through the pervasive virtual assistants that operate in their homes and on their smartphones. Simply put, it is the process through which software understands human speech and responds accordingly.

In the realm of customer service, the implications of advances to NLP are great — especially when it comes to chatbots, AIs that are able to respond to customer queries. One bank, for example, built a popular AI-powered chatbot that not only provides customer support but also personal finance advice through voice and text messages.

While unlikely in the near future, these AI bots could one day supplant the human teller or customer service agent, relegating human work to more complex problems. For now, though, increased accuracy, efficiency, customer satisfaction and quality of service are the goal of most chatbot designers. Another major benefit: Chatbots don’t go to sleep, enabling customers to interact with them any time they encounter an issue without employing around-the-clock staffers.

The potential cost-saving implications of a workforce that never tires, never gets sick and
Robotic Process Automation (RPA) puts to use a range of smart software designed to carry out the more mundane and repetitive tasks that can occupy a human worker’s day, like sending emails, scanning documents and responding to customer feedback.

Many banks see RPA as a promise of efficiency and reduction in human error, especially in cases like “the processing of a loan application or [customer] requests,” says Sifter. It offers “increased optimization of processes and workflows.”

Some banks are using this technology to review huge volumes of legal documents using software that can scan and extract relevant information at quantities and speeds that a human eye simply isn’t capable of. One financial institution reported that, using RPA, it has been able to achieve in one second what would normally take a team of legal experts 360,000 hours.

What’s Driving The Revolution?

According to Sifter, the reason we’re seeing all this excitement around artificial intelligence now — when AI has been around for some time — is the improvement in computing power, cloud technology and the sheer volume of data that can be stored and processed at speed. These new capabilities have opened the door to producing results at scale and predictions of increasing accuracy.

AI may have been embraced in the startup world before hitting large banks, but major financial institutions are now firmly onboard, investing heavily in their data science teams and working in partnership with large technology companies. There are obstacles to implementation, of course, including data governance; after all, AI and ML insights are only as good as the data they come from. Talent is also essential to adoption, says Sifter, who points out that banking institutions are for the first time competing for Silicon Valley’s applicant pool.

Still, most banks now look at AI strategies as an achievable — and necessary — goal. Even players that generally take a wait-and-see approach are laying the groundwork, putting teams and processes in place around data governance. “Look at all the places in our consumer life that’s already depending on machine learning,” Sifter adds. “They all know it’s coming.”