**Artificial Intelligence for Secure Payments**

In recent years, the world has seen a transformation of all industries to a digital world. For the financial sector, this transformation for the most part, involves the use and implementation of Artificial Intelligence. Though it comes across as a very difficult concept to many, AI concepts are fairly simple to understand. At its core, AI is the ability of computers and machines to perform tasks and solve problems by replicating human behaviors of learning and decision making. It has been shaping the world to our convenience, from voice recognition to predictive texting, and email spam filters to online shopping recommendations. Finance sector is one of the most invested industries in Artificial Intelligence and it is expected to see an exponential growth in the coming years.

Artificial Intelligence has many benefits to offer to the finance industry. But in this article, we will only talk about how it can ensure secure payments across financial transactions.

**Securing Payments Intelligently**

It has been almost 20 years since the early ecommerce websites were launched. At that time, very limited items were available for online purchase and finding home delivery services was not always possible. Now, people can buy or sell almost anything online from anywhere in the world. However, as much convenient as it is to buy and sell, it also presents security issues. The traditional fraud-detection systems have become obsolete with significant advancement in the payment technology. As payments are now real-time, they need real time security management. But with the large number of transactions that take place every day, it is humanly not possible to detect fraud and transaction errors for each transaction. This is why banks are particularly interested in how artificial intelligence can be used to keep payment systems secure. AI can help financial institutes monitor transaction data in real time and eliminate or reduce the occurrence of payment frauds committed by professional cyber criminals. It can also help spot suspicious or illegal transactions.

Because a consumer is never held liable in case of falling victim to a payment fraud, the payments industry is more inclined to invest in advanced technologies than any other industry, as mentioned by Juniper Research. According to Visa, with the introduction of [EMV cards or contactless cards](http://www.cardzgroup.com/ContactLessSmartCard.html), brick and mortar retail outlets are now facing a much lesser percentage of counterfeit card frauds. But the problem continues for ecommerce stores, where a payment card is not physically present.

Artificial Intelligence algorithms can help payment companies to study and analyze data and use it to identify fraudulent transactions. It can help a system to learn from every single transaction, improve as it learns and solve problems effectively. By automating the analysis of behavior pattern of their consumers, financial institutes can flag any fraudulent activity almost instantly.

Specifically, the ability of Artificial Intelligence to get insights based on trend analysis through machine learning, along with new knowledge obtained from unsupervised algorithms, is reducing the occurrence of payment fraud. By joining the two approaches together, AI can determine if a financial activity is fraudulent or not, and alert fraud analysts immediately.

Let us look at some reasons why Artificial Intelligence plays an important role in securing payments from fraud.

**Payment Frauds are now more sophisticated and cannot be detected with rules-based systems anymore.** They have different pattern or digital footprints, structure and sequence, and are not detectable with predictive modelling and rules logic only. It might have been possible in early ecommerce days, but now AI is needed to confront complex payment fraud schemes.

**AI provides real-time fraud prevention.** Businesses with AI based secure payments have an immediate advantage over those that don’t, since the fraudulent payments are detected almost instantly with real-time analysis of payments data. As AI companies compete with each other to provide faster solutions, the response rate for risk calculation is increasing.

**Predictive Analytics of AI and Machine Learning combined can find discrepancies in large data sets within seconds.** As a machine learning algorithm works more accurately with more data, it provides better predictive values. While ensuring secure payments, AI algorithms can distinguish fraudulent and legitimate transactions with greater accuracy.

**Bottom Line**

With advancement in technology and sophisticated cyber criminals, financial institutes are now leveraging the use of Artificial Intelligence to ensure secure payments and improve customer experience. Though some small organizations may not be able to move to advanced analytics and AI immediately, they can begin by analyzing existing data and building the expertise required to start as early as possible.