AI and Robotics in Financial Services

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Fintech Companies Leveraging New Technology

Artificial Intelligence is defined as any technology used to mimic human intelligence. It is broken down into three different areas including: machine learning, natural language process and cognitive computing. Used to drive partner equipment known as robotics, Artificial Intelligence will extend and broaden the human reach into many industries, increasing efficiencies, improving performance, and driving profitability for industry members.

Artificial intelligence and Robotics, typically thought to play primarily in the functions of customer service and manufacturing, are becoming increasingly more important even in sectors such as financial services.

Venture Scanner, a technology analytics firm, estimates that at present there are more than 2,000 AI start-ups across 70 countries that have raised a significant amount of funding towards the research and development of robotics powered by Artificial Intelligence. These intelligent robots have a significant role to play in customer service applications, and the financial services industry is leading the way when it comes to both the creation and the adoption of this AI, in areas as diverse as managing assets safeguarding against theft.

There are five major areas in which AI and Robotics are transforming fintech, including investment, customer engagement, risk management, regulatory, and stock market predictions.

Labor Force Takeaway

As with all technologies, the need for robotics management and maintenance is anticipated to grow exponentially in the near term. Robots working in customer service banking telecenters, at self-service terminals, kiosks and web portals. These robots will be in need of inventory, maintenance, management, and lifecycle updates/patches.

PC Age, as well as many local community colleges, offer CompTIA A+, Network and Security certifications, all aimed at the IT beginner, to gain knowledge in the areas of software installation, maintenance and updates, as well as network access, security, and other IT fundamentals necessary to running a network of endpoints and devices in a warehouse environment, and others.

The Cisco Certified Entry Network Technician (CCENT) is the first step towards the CCNA (Certified Network Administrator) certification. It covers network fundamentals, basic security and wireless, routing, switching, and configuring. This certification would be key in establishing network knowledge of network fundamentals, a key component platform in the fintech environment.

Major manufacturers in the fintech AI/Robotics space, including Hitachi and Adyen One, and software developers the likes of Gappify and FloQuest all have products with training modules that associates will be trained on to support the specific implementations at their place of employment.

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Major Technology Disruptors in B2B FinTech

The following major areas in the financial services industry are estimated to be the most noticeably affected by the availability of artificial intelligence driven solutions:

Investment
Robo-advisors, a class of financial adviser that provides algorithm based investment advice with minimal human intervention, are setting the investment community on its ear. By providing ubiquitous access to investment advice and thereby driving down its costs, millions of people previously unable or unwilling to seek such advice due to high barrier cost of entry, commissions and fees can now avail themselves of such advice much less expensively, and with greater frequency. By-products include increased regulatory compliance and decreased human error.

> Artificial intelligence (AI) and digital labor cover a range of emerging technologies being used across the financial services industry, including robotic and intelligent process automation (RPA and IPA).

Customer Engagement
Robots are no stranger to customer service environments. Integrated Voice Response systems, machines that customers access by phone, and which, through a series of numerical prompts from a telephone key pad, route callers to recorded answers or data base access for query/response information dissemination, are currently enjoying widespread deployment in many industries, including finance. With the boost of artificial intelligence and machine learning, deeper dives into customer needs, and even product recommendations become possible, further driving down provider costs and increasing customer access to services.

Risk Management
Technology can rapidly adapt to the thought processes of human analysts, and is fully capable of anticipating fraud even before it happens. By anticipating threats, and preventing card abuse, account closure and reopening, through user profiling and account access tracing, artificial intelligence and "finbots" can stabilize and reinforce provider security profiles, improving client perception, reducing loss and replacement fees and costs, and overall increasing service utilization and performance.

Regulatory
Artificial Intelligence can learn, remember and reply all applicable regulatory laws, making compliance nearly automatic. With reduced need for human intervention and better quality, costs can be driven down, and compliance improved throughout the banking and financial services industry.

Stock Market Predictions
Big data analytics, another tech phenomena that is driving change across this and all sectors, can be harnessed through artificial intelligence to predict and set pricing in the stock market. Bond prices, including FNMA and others, have typically. relied upon human analysis and anecdotal speculation, and have not been able to rely upon performance specific algorithm-based analysis and price-setting. By capturing actual market based historical pricing, and analyzing against targeted attributes, better, more accurate pricing can be derived and applied, further guaranteeing improved returns on investment for investors, portfolios, and investment houses.

The financial sector is uniquely situated to take advantage of the technology revolution currently underway. The mountains of financial data that are available in the form of historical and current pricing data, analysis, account records and user profiles, can all be collected, aggregated and interpreted by the artificial learning technologies currently available today. This information can be used to answer client requests, predict market performance and returns, and even assess and manage risk, which is essential to customer confidence, and portfolio performance. Win-win.

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