

**Automating AML is  
Not a Pipe Dream:  
We're Already Halfway There**

*Insight Article*

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**The end-game of anti-money laundering operations will, logically, be a fully automated process whereby monitoring and screening, alert investigation and decisioning, generating and filing of regulatory reports are executed without human intervention. This should be feasible within ten years and perhaps sooner.**

Automated AML may seem like a distant goal. But the reality is that we are already halfway there. Transaction monitoring and screening, the two main building blocks of AML, are performed by automated software engines. Although model building and tuning require significant and ongoing effort, once a scenario or filter is put into production, the engines hum along, perform their analysis and populate case management systems with the resulting alerts, risk scores and associated transaction and customer data.

What is not automated today is the investigation of alerts once they've entered the case management system. The majority of alerts are false positives. False positive rates are 70% or higher, and this drains resources from the crucial and value-added work of identifying true positives. High false positive rates are the main driver behind the rapidly growing expansion of AML back-office teams.

### Generating time and cost savings

The next step in AML automation is getting machines to handle the disposition of the false positives that make up most alerts. The good news is that progress is being made in applying technology to this issue. Rules-based machine learning can suppress alerts consisting of data that has been seen and passed before. Artificial intelligence can analyze previous alert decisions to understand the characteristics of false positives and predictively apply these models to the decisioning of new alerts. Anecdotal evidence suggests that these techniques can generate time and cost savings of 30 – 70 percent.

That leaves the remaining alerts to be investigated by human analysts. Technology is enabling a AI model where analysts and machines work interactively. A good example is entity investigation, which is integral to KYC workflows and a common element of transaction monitoring alert investigations. Robotic software can do the heavy lifting by searching external data and media sources and compiling the relevant found information into ready-to-go entity profiles to be presented to analysts for review. Additionally, artificial intelligence can be used to not just search for keywords but to understand contextual information about the entity and generate more meaningful entity profiles.

In the case management context, visualization tools have been important in providing graphical analyses of data for analyst review. Visualization tools have continued to evolve, to the point where they now provide a spectrum of value-added information and insights, much of which would elude an analyst relying on table-driven compilation of data. For example, link analysis tools are now backed by the power of graph analysis, providing visual, interactive maps of customer and account relationships and transaction flows. Link analysis now enables investigators to more readily identify patterns of activity that may involve extended rings of customers, counterparties, and transactions.

Additionally, insights from alert investigation, entity resolution and link analysis are potentially consumable by an AI-driven "analyst" that would package the information into reports automatically created through natural language generation.

As these automated processes mature, and more AI is brought to bear upon analysis, alert decisions now made by humans, will be within reach of the machines. In a very real sense, analyst decisions are already guided by automatically-generated risk scores, which can be used to prioritize alerts or even generate preliminary alert decisions. As the science behind risk scoring becomes more sophisticated and AI-driven, the closer we will get to computer-driven alert decisioning.

From the case management point of view, software robotics, machine learning, AI and visualization can generate significant efficiencies in AML operations. Similar strides are being made in the application of advanced analytics and AI to model building and anomaly detection.

**While the technology will inevitably require much effort and practice to mature, it is not an overstatement to say that AML technology is already halfway to automation.**



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