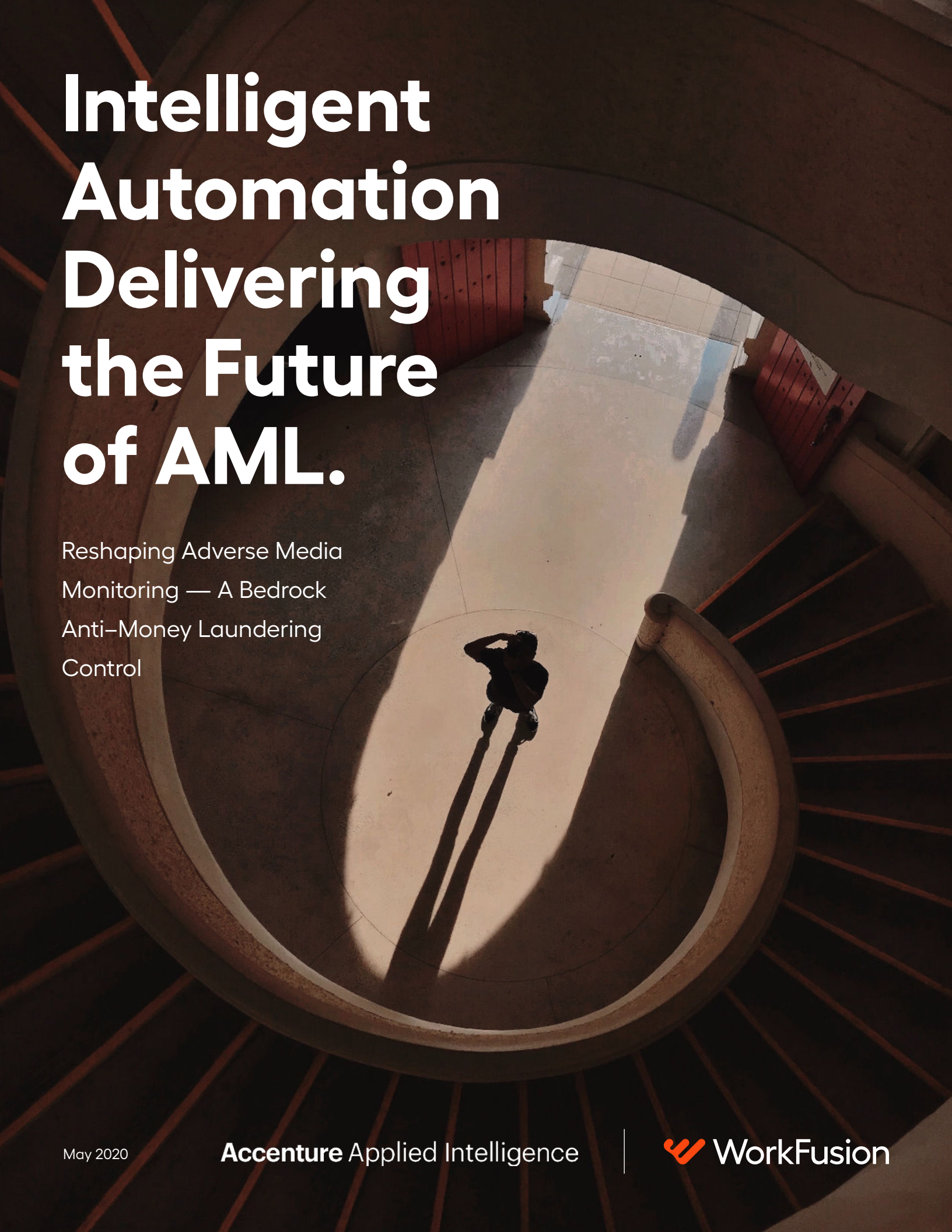
Intelligent Automation Delivering the Future of AML.

Reshaping Adverse Media Monitoring — A Bedrock Anti–Money Laundering Control



May 2020

Accenture Applied Intelligence | WorkFusion

2020 will likely be a turning point for how financial institutions use automation for adverse media monitoring.

In 2019, at least 10% of the top 100 financial institutions in North America and Europe, as measured by revenue, had implemented or were working to implement automation to streamline adverse media monitoring — a critical due diligence practice that involves research and analysis of unfavorable news and other open-source intelligence, like court filings and regulatory actions, to assess a bank's risk exposure from clients. But as of early 2020, more than 30% of those major banks were exploring this new technology on a global scale or within select business lines.[1] This drastic shift is being driven not only by cost considerations, but also increased demands from regulatory agencies that banks perform ongoing monitoring for risk within its customer base. We estimate that within 12 months, 45% of major North American and European banks will be on a path toward automated adverse media monitoring.[2]

Analysis of adverse media allows financial institutions to identify exposure to potential illicit actors, consider context of transactions flows, and evaluate a range of reputational considerations. It is critically important. It is also expensive, time-consuming, prone to regulatory criticism, and, despite best efforts, can be ineffective at achieving its core goal. Financial institutions have reported they spend, on average, 40 hours to evaluate adverse media for a single client onboarding.[3] In general, this can account for more than 10% of onboarding time — a costly commitment in an era of immense pressure from regulators as well as customers. We estimate that the top 100 North American and European banks spend upwards of $800 million annually in full-time equivalents on adverse media monitoring.[4] Banking professionals, compliance experts, technology companies, and regulatory agencies have been exploring how to improve efficiency and efficacy. Until recently, adverse media monitoring has seen little transformation, even though technological advances have reshaped many other functions in the industry.

Intelligent Automation-driven adverse media monitoring creates a 10x improvement over current processes, both in manual work reduction and deeper risk analysis.[5]

Key Challenges to Today's Adverse Media Monitoring Controls

Time intensive	Prone to judgment error	Recency bias	Overlooking of critical news
Point in time view	Erodes job satisfaction	Quality not standardized	Low customer population coverage

During the past decade, there has been a boom in technological enhancements, particularly in the areas of handling, storing and processing data, as well as computational techniques and models within Artificial Intelligence (AI), which can utilize data to computationally solve consumer and business problems. Grouped with wider information technologies, this has created the Intelligent Automation product suite. Banks can use Intelligent Automation to exploit broader and deeper data sources and realize cost savings, alleviate strategic and operational challenges, and mitigate some potential financial crime risk. Today, financial institutions are pressured to provide excellent customer service while reducing their operational expenditure. Continuing with current adverse media operations may force banks to increase spending on an inefficient method which delays onboarding, affects customer satisfaction, and potentially invite regulatory criticism.

A major global financial institution recently reported a 95% reduction in false positives using Intelligent Automation for adverse media monitoring, creating additional capacity equivalent to more than 100 full-time employee hours.[6]

Combination of Tools Needed to Accelerate Transition to Intelligent Adverse Media Monitoring

In order to overcome many of the challenges facing "business as usual" adverse media monitoring, it is preferable that several automation tool sets must work in concert, including machine learning, robotic process automation (RPA), analytics, workflow, and optical character recognition (OCR). These tools assist with three critical phases of the adverse media monitoring process: information-gathering from core systems, risk analysis and prioritization, and case management.

Toolkit	Critical Phase	Role in Adverse Media Monitoring
Machine Learning	Risk analysis and prioritization	• Understand the article context and sentiment using natural language processing, relationship between key risk factors • Move beyond searches driven by a list of negative keywords — a "dirt string" — without consideration of use or context • Improve quality of automated article analysis through ongoing re-application of subject matter decisions into underlying models, allowing the models to "learn" as they work • Associate the wider context of the article with data from core business applications, connecting the dots to understand whether the article really mentions the searched entity • Perform geographic context analysis to determine whether the article is published in a location that is relevant to the searched entity
RPA / API Connections	Information gathering from core systems	• Execute adverse media analysis for customers and related parties in subscription databases or open sources • Create and place evaluated news audit trail and justifications into source system • Minimize errors in manual data transcription and movement
Optical Character Recognition	Information gathering from core systems	• Pull data from outputs provided by news-screening tools and digitize these into machine-readable text • Digitize images within news articles • Digitize legal filings that included scanned images
Workflow	Case management	• Create "human in the loop" involvement in negative news evaluation where subject matter expertise is required • Serve as a case management function for adverse media reviews • Support seamless integration of automated and human process steps within the end-to-end adverse media journey
Business Intelligence Analytics	Case management	• Aggregate information on top sources of information, repeat keywords and relationships, and drivers of false positives • Support fast response times to compliance monitoring, internal audit, and regulators' information requests

Exhibit 1

Automation of adverse media monitoring requires various automation toolsets across information gathering, risk analysis, and case management

Building sophisticated technology to support automated adverse media monitoring from scratch may seem daunting and distracting to compliance departments and bank technology teams. However, leading Intelligent Automation vendors have launched products with pre-built machine learning models and solutions that financial institutions can absorb into their unique operating environment with minimal additional development and training. Pre-built models are configured for specific use cases and are trained across a large data set prior to use. We have seen Intelligent Automation vendors with pre-built models which are trained on thousands of negative news articles — roughly what a large bank would see over a three-year period.

Specifically within the adverse media monitoring process, a pre-built model, connectors to news aggregators and sources, audit trail creation, business intelligence analytics, and feedback loop architecture can reduce time to go-live by 90%, as compared to a solution built in-house, which can take as long as a year to build and often relies on rules-based automation that's unsupported by machine learning.[7]

Intelligent Automation Addresses Key Factor Driving Cost and Inefficiency in Today's Monitoring

Current approaches to adverse media monitoring are likely constrained by resource capacity, limitations of keyword-driven searches, overwhelming volumes of results on common names, unreliable sources, and duplication of work across business lines. Intelligent Automation solves many such challenges.

Challenge

We search using dirt-strings, I hope that captures everything.

A common approach to adverse media monitoring includes a name search in combination with a list of negative keywords (also known as a "dirt-string search"). While some keywords are recognized as strong indicators of risk (laundering, indictment), their use and context is more important than mere presence in an article. There is no single list of "correct" keywords; industry exposure, product type, geography, and entity type all affect what a bank could be searching. Furthermore, search engines often have technical limitations. For example, the most-commonly used engine limits the number of search terms to 32, shorter than most "dirt strings" used today.

Intelligent Automation Answers

Move beyond keyword-driven searching by including sentiment analysis, search-term positioning, and weighting search terms

Eliminate constraints on search parameters imposed by search engines or subscription services

Dynamic updates of keywords and weights based on analyst review and feedback, driven by machine learning

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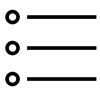
Challenge

The volume of results is overwhelming.

Some searches can return hundreds of results, creating unsustainable operational overhead. Financial institutions limit what is reviewed based on recency, source, and order of results in a web search. It is very common for financial institutions to mandate that analysts review the first page of a search engine result, while other results are purposefully not considered. Another common practice is to limit the number of results received back by the screening vendor, potentially removing pertinent articles during the process of removal.

Intelligent Automation Answers

Reduce false-positive search results based on news materiality, focus on searched entity, non-matching KYC data, keyword weighting



Reduce overall manual handling time by auto-creating audit trails, disposition justifications, and eliminating need to conduct "swivel chair" searching between systems

Enable the ability to take all news data sources without volume restriction and only highlight cases for review when the article breaches set rules or the firm's risk appetite

Challenge

We search on a schedule, not when risk occurs.

Institutions typically perform adverse media searches several days or weeks after a customer's onboarding experience has begun. Thereafter, additional searches are roughly based on a pre-defined cadence (once a year for a high-risk customer, for example). Infrequent screening runs a risk of missing material updates until a next review cycle. As a result, a key compliance control is heavily biased by the timing of due diligence, not when risk actually occurs.

Intelligent Automation Answers

Increase frequency of periodic reviews, but minimize additional work through false-positive reduction

Continuous, "in the background" screening of media to identify true adverse events with "push notification" alerts on confirmed customers and truly material negative news

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Challenge

We see the same articles over and over; opinion on whether it's a risk depends on who is reading it.

A genuine adverse event will often generate dozens of news articles or news alerts which, in turn, requires more time and workforce to complete the screening process. Compliance teams routinely review the same article multiple times after the negative news event occurrence, and this can often provide varying levels of results depending on the analyst that is investigating the case at a given time. In addition to spending time reviewing the same news event, subjective analysis sometimes leads to disparate decisions on the risk materiality of an event.

Intelligent Automation Answers

Suppress similar articles within a customer-defined time period

Reapplication of analyst escalation or discounting decision from previous reviews of similar articles

Standardize quality of reviews and analysis between teams and analyst experience levels

Avoid duplicative work

If measured by assets under management, 52% of Canadian banks use Intelligent Automation for adverse media monitoring during customer onboarding and periodic reviews; more than 90% may be covered within 2 years.[8]

Intelligent Automation Decreases the Cost of Adverse Media Monitoring and Extends Benefits

The ability to drastically cut cost in adverse media monitoring while increasing quality of analysis, research depth, and consistency is not just a hypothetical application of Intelligent Automation. This section presents data from negative news automation implementations across multiple financial institutions, including within retail, commercial banking, and capital markets. There are three main benefits that Intelligent Automation can deliver to the adverse media monitoring process and to broader compliance functions: false-positive reduction, accuracy improvement, and decrease in overall manual handling time.

Reduced false positives

In the context of adverse media monitoring, a false positive can refer to news that does not include material negative events; negative news not being focused on the searched entity; or when a negative event has previously been analyzed and does not require additional review. As shown in Exhibit 2, below, Intelligent Automation solutions reduce false positives by 75–95% using several different levers and techniques, including sentiment analysis, matching of KYC data to information within a new article (age or geographic location, for example), and linking of "like-articles" published by different news sources.

Machine learning facilitates the continuous improvement of false-positive reduction. When a negative news article is reviewed by a compliance analyst, their decisions — in the form of an escalation decision, tagging of negative keywords, and tagging of non-negative language — are used to advance the underlying model and expand its scope of "understanding." Every time a compliance analyst takes a decision on a negative news article or alert, the underlying machine learning model learns and picks up these new trends and incorporates them into future decision-making.

Improved accuracy

Human reviewers of adverse media make mistakes: Material articles are mis-classified as non-material, some alerts are escalated that, upon more nuanced review, are determined not to present actionable risk, and decisions

Exhibit 2

How Intelligent Automation reduces false positives from negative news or associated alerts[9]

are inconsistent based on recency bias, hours worked, training, and experience. The models driving adverse media monitoring automation are trained by human beings, so these models may make errors as well. However, whereas human performance — when considered as an average across an entire due diligence or alert review team — stays roughly the same over time or even decreases in quality when volume surges occur, Intelligent Automation continues to improve because of the ongoing retraining of the underlying models. Our experience shows that bot accuracy begins to surpass human accuracy when approximately 1,000–2,000 training records are incorporated into the machine learning model. (See Exhibit 3, below.) For leading Intelligent Automation platforms, this re-training is seamlessly conducted as part of the business-as-usual review of articles cited by automation as material or non-material. Several recent implementations of adverse media monitoring automation have shown that automation accuracy rates are commonly around 95%.[10]

Decreased manual handling time

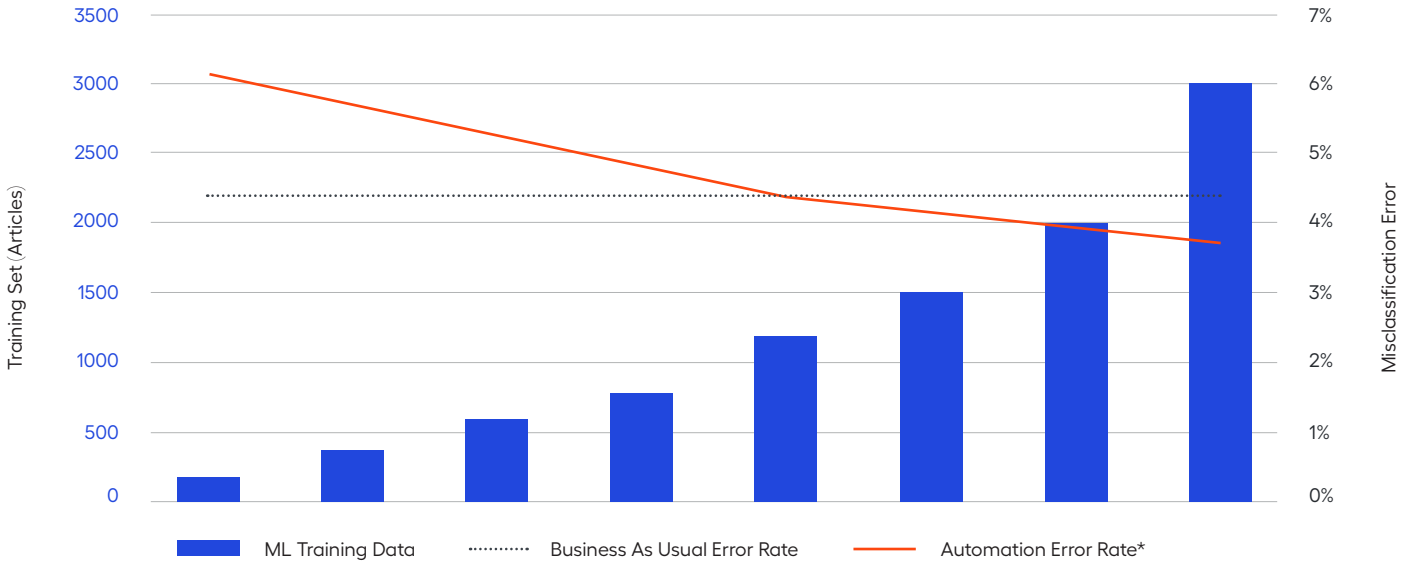
Perhaps the greatest impact from Intelligent Automation on adverse media monitoring is the reduced manual handling time in the end-to-end process: news fetching, analysis, linking to internal KYC data, case handling, and audit trail generation. Several recent implementations demonstrate the significant time savings, allowing compliance teams to repurpose analytics efforts on high-value reviews.

A multi-state regional bank in the United States conducts an annual refresh on all customers with a high-risk rating, a process that typically takes 8 weeks to complete. Collection and analysis of adverse media on the high-risk population is a major focus of these 8 weeks. Temporary staff is often hired to supplement the capacity of the full-time compliance staff, who also must fulfill their usual responsibilities. The institution was able to decrease the time spent on negative news analysis to 3 days, a roughly 85% decrease in manual handling time over non-automation-driven efforts.[11]

Using pre-existing models provided by a solution with no supplemental machine learning, a large European institution showed that Intelligent Automation of adverse media monitoring could accomplish a 52% average reduction in manual work. Notably, after implementation, the actual manual workload decrease ranged from several percent (for high-risk customers with an abundance of negative news) to more than 80% (for major companies that operate globally), as shown in Exhibit 4 (next page).[12]

Exhibit 3

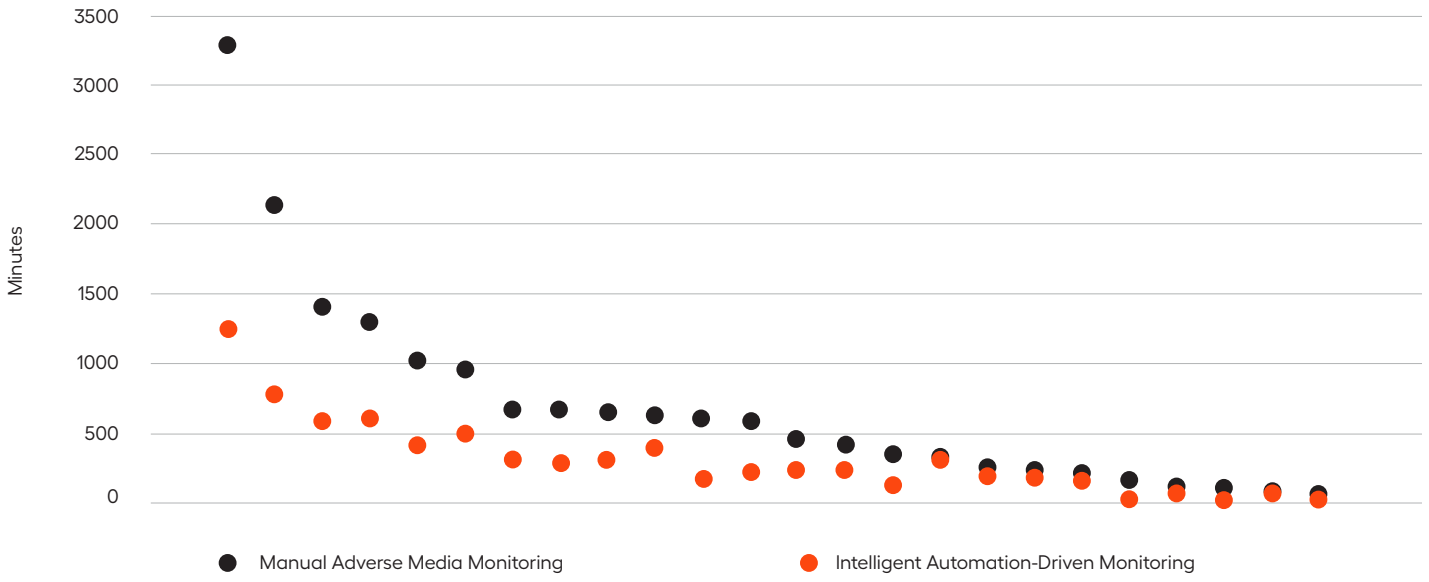
Automation errors decrease with additional training, quickly surpasses human accuracy[13]



* Errors are defined as misclassification of a negative article as a non-negative article.

Exhibit 4

European Bank's Time Savings with Intelligent Automation-Driven Adverse Media Monitoring



In February 2020, a large European financial institution noted that automation of adverse media monitoring during customer onboarding eliminated roughly 50% of manual work.[14] A separate, smaller European bank eliminates more than 60% of manual work from its adverse media monitoring operations, performed on a weekly basis of all low-, medium-, and high-risk customers.[15]

Conclusion

Much like adverse media monitoring is more than just a "check the box" compliance exercise for financial institutions, Intelligent Automation is about more than just cost savings. Compliance and Operations teams alike have pursued solutions that expand capacity without expanding budgets, improve depth of negative news analysis without ballooning false-positives rates, and improve the strength of overall compliance efforts without undergoing massive IT transformation. Intelligent Automation of adverse media monitoring is not just a minor expansion of what can be achieved today, but a truly transformational toolkit that can change the whole operating construct. Throughout 2020, implementation of full Intelligent Automation product suites may move from "exploration" to "industry standard."

Intelligent Automation helps bridge a highly important gap that has long plagued compliance teams: the trade-off between effective risk analysis and resource constraints. When automated transaction monitoring tools first achieved wide-scale adoption by financial institutions, they were viewed as a transformative technology that allowed compliance teams to consider cross-period, cross-customer, multi-account risk factors. Intelligent Automation can help financial institutions collect and analyze a critical source of customer risk information, all while freeing up capacity for compliance teams.

Bank executives, the Chief Risk Officer most of all, should encourage compliance departments to explore how automated adverse media monitoring can generate cost savings and improved risk analysis. AML leadership and Compliance Operations should begin laying the groundwork for successful automation, including mapping of how current processes will be transformed, providing additional training and upskilling, communicating intentions and automation plans to regulatory examiners, updating internal operating procedures, determining industry- or geographic-specific adverse media news which should be included in model re-training, and other tasks.

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WorkFusion is accelerating the world's transition to more meaningful work. Our Intelligent Automation solutions are powered by pre-trained bots, proprietary artificial intelligence technology and advanced analytics, working together to automate a wide range of business processes. Leading organizations worldwide use WorkFusion to automate their operations with ease and speed, helping them up-skill employees, reduce costs and unlock growth like never before. WorkFusion is headquartered in New York City with operations throughout Europe and Asia. Learn more at **workfusion.com**.

Citations

[1]WorkFusion analysis, including WorkFusion Adverse Media Monitoring automation deployments and other known automation

[2]WorkFusion analysis, including WorkFusion Adverse Media Monitoring automation deployments and other known automation

[3]WorkFusion data from a late-2019 implementation of its Adverse Media Monitoring automation solution

[4]WorkFusion data from known FTE equivalents at major banks and estimates at other top 100 banks in North American and Europe

[5]WorkFusion data from Adverse Media Monitoring solution at a European institution. 10x reference to manual handling time reduction for ongoing monitoring.

[6]**https://www.workfusion.com/customer-spotlight/scotiabank/**

[7]WorkFusion experience; top 20 North American financial institution's experience with building an in-house Adverse Media Monitoring solution

[8]WorkFusion data and client experience

[9]WorkFusion internal modeling, with select client automation experience

[10]Experience from two separate WorkFusion implementations of Adverse Media Monitoring; both multinational financial institutions with operations in more than 10 countries

[11]WorkFusion client; information presented publicly at the December 2019 American Bankers Association AML conference

[12]**https://www.forbes.com/sites/neiledwards/2020/02/24/the-digital-side-of-deutsche-bank-that-you-have-not-heard-about/#246d38bf1ade**

[13]Human review error percentage is an average of data provided by multiple financial institutions as part of WorkFusion automation implementations

[14]WorkFusion client; information presented at completion of first implementation of Adverse Media Monitoring automation, October 2019

[15]WorkFusion client; information provided by European financial institution in January 2019