CANON INFORMATION & IMAGING SOLUTIONS

How Artificial Intelligence and Robotics Process Automation will Transform Accounts Payable

White Paper

The accounts payable function at most businesses remains mired in paper-intensive processes that leave little time for value-added activities. ***84%*** of the average accounts payable professional's time is spent on transaction processing, leaving only 16 percent of their time for activities such as data analysis, the Institute of Finance and Management (IOFM) reports.

But two emerging technologies – artificial intelligence (AI) and robotic process automation (RPA) – are fundamentally changing the way accounts payable functions by eliminating manual tasks, speeding cycle times, and enhancing decision-making.

This white paper describes the challenges faced by most accounts payable departments, shows how AI and RPA address these challenges, and provides an action plan for ensuring that accounts payable departments choose the right AI or RPA solution.

Inadequate AP Systems

Accounts payable departments have historically been organized around tactical activities such as invoice processing, inputting data into an enterprise resource planning (ERP) system, and delivering periodic reports. And in most accounts payable departments, these tasks are performed in a manual or semi-automated environment. In fact, inadequate accounts payable processes and systems result in 27 percent of time spent on waste and activities that could be automated, PriceWaterhouseCoopers (PwC) reports. It is no wonder that most controllers surveyed by the Institute of Finance and Management (IOFM) rank accounts payable as the most labor-intensive and paper-intensive finance and administration (F&A) function, and the function that would most benefit from automation.

Sixty-five percent of organizations surveyed by Ernst & Young predicted that standardizing and automating processes and building agility and quality into processes will be a significant priority for tomorrow's finance function. What's more, the majority of those surveyed by Ernst & Young said that combining state-of-the-art technology with process improvement will be a major focus for the future finance function. Fifty-six percent of finance leaders surveyed for PwC's finance operations benchmarking study believe that improved technology will make finance processes more effective.

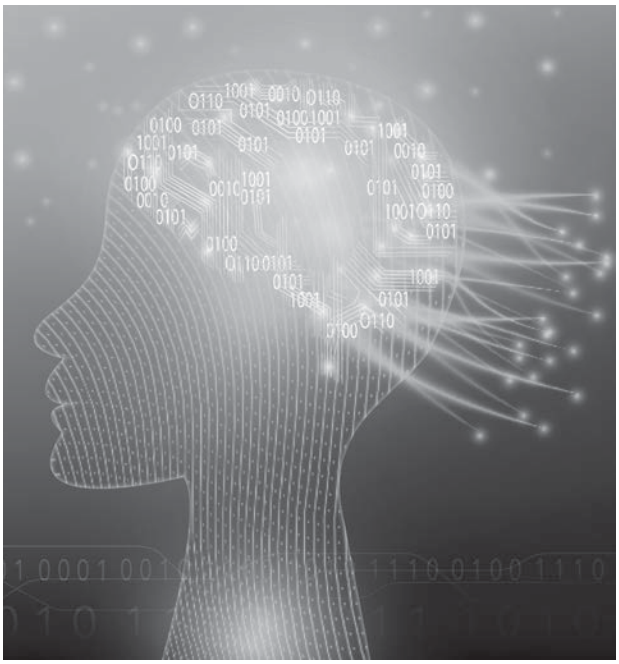
AI and RPA will likely be big contributors to more effective finance processes.

AI and RPA improve efficiency and effectiveness by analyzing unstructured data, such as that from invoices, and identifying patterns and trends from data sets to make faster and better decisions. AI technology also will help improve compliance and risk management by identifying patterns in large data sets that are indicative of fraud or other concerns. And when combined with RPA, AI will help accounts payable departments automate repetitive manual tasks such as capturing and validating data or determining the individual to which a purchase order requisition or invoice must be routed.

"The cost of finance operations at best-in-class organizations is 0.48 percent while median organizations spend 0.91 percent of revenue."
- PwC reports

Artificial intelligence enhances the level of information available to users.

Artificial Intelligence



Microsoft Founder Bill Gates refers to AI as computer science's "Holy Grail."

Artificial Intelligence already helps improve decisions and predictions in the enterprise using machine learning algorithm across large datasets. Accounts payable practitioners rank AI among the most important technologies to the future of their profession because it can also help with process optimization. What is it about AI that has people excited?

AI in process optimization enables software or machines to understand tasks by producing for itself the rules programmers cannot specify. And accounts payable –burdened by complex rules for approving invoices, resolving exceptions and mitigating fraud and compliance issues – is a prime target for the technology.

By analyzing data sets and patterns, AI automates menial, time-consuming tasks such as document classification, data extraction, invoice approval routing, and exceptions resolution. The technology understands the tasks that must be performed for a particular business application. What's more, AI employs "machine learning" to achieve better results over time. Machine learning uses sophisticated algorithms to eliminate the complex, rigid and time-consuming process of programming all the steps required to automate a business process. The technology can "train" itself to recognize documents (e.g. invoices) and to perform the necessary tasks based on their characteristics (such as extracting invoice amount, due date, etc.). When the technology encounters a new or unknown object (say, a purchase order), it compares its characteristics with known objects to learn what should be done. As a result, machine learning is ideal for environments with a variety of data analysis requirements.

Machine learning has the power to quickly transform financial operations.

AI also can mine information to provide contextual insights for decision-making and financial planning. For instance, the technology enables organizations to intelligently leverage data from millions of transactions stored in repositories for spend management or cash flow analysis and liquidity management, or to identify preferred suppliers. And the technology can monitor business processes to help ensure compliance with regulations and policies and to flag suspicious transactions.

Financial data is a critical corporate asset.

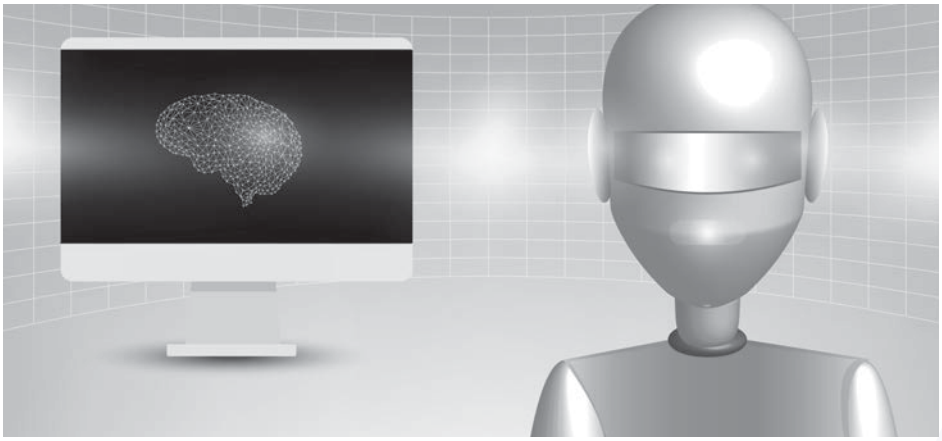
The insights generated by AI also helps reduce operational costs through the identification of bottlenecks and the root cause of exceptions, and the predictive modeling of invoice volumes.

The Association of Chartered Certified Accountants predicts that over the next two years, AI will alleviate cumbersome processes such as general ledger coding and bookkeeping, freeing staff to focus on value-added tasks such as cash flow analysis, spend management and operations planning.

Considering the impressive progress of AI in other fields, it is no surprise the accounts payable practitioners are embracing the technology's potential to drive dramatic change in their departments.

> **"We may hope that machines will eventually compete with men in all purely intellectual fields."**
>
> **- Alan Turing, Computing Machinery and Intelligence**

Robotic Process Automation



RPA also figures prominently in the future of accounts payable.

RPA is billed as being able to perform repetitive tasks rapidly, flawlessly and consistently, around-the-clock, with minimal setup, and up to 20 times faster than a typical full-time equivalent. The technology is well-suited to rules-based and error-prone accounts payables tasks. For example, RPA can analyze information on a purchase order request to determine the department or category, verify that all of the necessary fields have been completed, and to route the form the appropriate person.

The RPA solution can monitor an organization's existing purchase order requisition queue, open the queue through a standard user-interface mechanism (mimicking the actions of a keyboard and mouse), review the fields necessary for the requisition process, extract the data from the fields, and route the document based on the information. Importantly, an RPA solution can accomplish all this without any programming or modifications to the existing purchase order requisition solution. The fact that RPA can be deployed and improve efficiency without significant IT involvement and generally does not replace existing systems can lead to rapid gains and good return on investment.

> **"Since 2004, the median number of full-time employees in the finance department at big companies has *declined* 40% to about 71 people for every $1 billion of revenue, down from 119."**
>
> **- The Hackett Group**

Combining AI with an RPA solution enables accounts payable departments to improve the decisions made by the RPA solution (such as where documents are to be routed), based on trends and patterns.

Using RPA to eliminate menial, repetitive and time-consuming tasks such as invoice data-entry in turn enables organizations to accelerate cycle times, more easily manage spikes in volume, and ensure consistent operating procedures. Detailed transaction logs streamline audit and compliance.

And with fewer workers needed to perform menial tasks, accounts payable staff are freed to help sift data on profits, revenues and cash flow, among other things, and to help in planning and forecasting. Their talents and expertise can be leveraged to benefit the business in a more strategic capacity.

> **"Executives are more conscience of operating expenses, particularly since the financial crisis."**
>
> **- Deloitte Consulting**

An AI and RPA Action Plan

It is for these reasons that more accounts payable departments are embracing AI and RPA. Here are four strategies for helping to ensure that your organization gets full value from these technologies:

1. Steer clear of solutions providers that do not have strong financial backing or a solid technology base. AI and RPA technologies are evolving quickly. Many providers of AI and RPA technologies do not have the core research and development teams required to keep pace with technological advancements, or to understand applications for the technologies.

2. Be on the lookout for intelligent data capture solutions that have been rebranded as AI. These solutions put the onus on the user to manually program the technology for applications such as forms identification or the extraction of invoice data such as invoice number, invoice amount, supplier name, and supplier identification number. Rather than analyzing invoices to identify data sets and pattern, and "learning" to make better decisions over time, the "intelligence" in these solutions is derived from the individual who setup the template or form. Rebranded intelligent data capture solutions cannot match the benefits of AI and will likely fall by the wayside as accounts payable departments better understand the difference between rebranded solutions and those that leverage "deep learning" or "machine learning" to analyze content and self-train their models based on the information results.

3. Don't fall into the trap of thinking that AI and RPA are merely ways to reduce headcount. While they unquestionably improve the efficiency and effectiveness of accounts payable, businesses are likely to find that one of the most tantalizing benefits of the technologies lies in the ability to reallocate staff from heads-down transaction processing to value-added activities such as data analysis, working capital management, and spend management.

4. Remember: AI is only as good as the information that it can access. AI technology can uniquely unlock the full value of the information that passes through an accounts payable department and resides in its various repositories. For instance, AI can mine archived information to predict future trends. But AI requires information to be accessible and clean. Therefore, accounts payable departments should consider implementing business rules and processes, or leveraging third-party services, to ensure their data is accurate and complete.

Conclusion

Change is coming to accounts payable. AI and RPA will eliminate menial, repetitive tasks, accelerate cycle times, and facilitate faster and better-informed decisions. It is no wonder that accounts payable practitioners rank AI and RPA among the most important technologies to the future of accounts payable. But accounts payable organizations will never achieve the transformative benefits of AI and RPA if they partner with poorly funded solutions providers, deploy rebranded intelligent data capture solutions, focus too much on reducing headcount, or use incomplete or inaccurate data. With the right AI and RPA solution, accounts payable will never be the same.

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