



the payments association



The Payments Association's Guide to Artificial Intelligence

Use Case: Document Data Extraction



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Read The Payment Association's Using AI Intelligently Guidebook [here](#)



The pace of change will be slow and steady. Starting upstream, making small incremental changes to feed better overall downstream results.

What do you understand when we talk about AI?

AI is widely misunderstood as a cure all, when in fact it will never be as good as human intelligence. We expect it to be able to interpret and learn by itself, but the reality is that it's a means to uncover and sort data. It can help to identify relationships and correlations en masse by dealing with massive volumes of data. Humans are better on an individual basis, but we are simply not wired to deal with and interpret masses of data. Our self-learning loop is also better on an individual basis but again, with massive volume. AI enablement can have a huge bank of examples that can be swiftly and easily added to and referenced.

How does Itemize use AI?

We are in a period of transformation. Going forward, we are going to be using AI to read accounts payable and invoices to assist with existing workflows and make them quicker, less manual and more accurate. We read the documentation and then build algorithms that mimic a human reading them. This uses rules that are numerous and complex. They are too much for a human to be able to do quickly. We are looking to transform processes downstream, so we are looking to use the data we have captured in audit and compliance to evaluate things like fraud, risk and undercover subtle connections and correlations.

Itemize Invoice Capture and Reconciliation converts payables documents into rich data sets for financial applications. The solution reads invoice and PO images, pdfs, emails, and text files in any layout. Using Computer Vision, Artificial Intelligence, Machine Learning, and other technologies, the platform captures rich data, cross checks information, and augments content with additional sources.

The platform reconciles invoice data with POs and other information to decrease manual reconciliation, improve compliance, and automate audit functions. The service is available via easily implemented APIs for real-time or batch production.

Receipt Data Capture and Matching converts receipt documents into rich data sets for financial applications. The solution reads receipt images, pdfs, emails, and text files in any layout. Using Computer Vision, Artificial Intelligence, Machine Learning, and other technologies, the platform captures rich data, cross checks financial information, and augments content with additional sources about the transaction.

The platform also reconciles receipt data with financial transaction information, such as credit card data or T&E report information, in order to support compliance and policy controls. The service is available via easily implemented APIs for real-time apps or batch production.

Itemize VAT Capture and Processing helps automate business VAT tracking, reporting, and reclaim. The solution reads receipt images, pdfs, emails, and text files in any layout. Using Computer Vision, Artificial Intelligence, Machine Learning, and other technologies, the platform captures rich VAT and sales tax data, cross checks information, and augments content with additional sources.

In its early iterations, AI, as a means to automate, had many issues in terms of not being able to get enough accuracy into it to do anything reliably. We would get close to 60 or 70 per cent but then we would end up playing whack a mole where solving one issue would create another.

Self learning in particular has proven to be a dangerous game, where if the AI has one false learning issue, others will soon follow, turning into a self-perpetuating thing where two wrongs end up making a right and the whole system gets skewed.

Itemize has now embraced next generation technologies and taken things back a step. We now have a white box approach with supervised learning to ensure we know how decisions have been made and can prove the process and step in when required. This is the opposite of Deep Learning which is unsupervised and therefore, we think, potentially dangerous.

We are moving to intelligent automation for accounts payable. This means we are looking to embed RPA into workflow systems and processes, this will be our next big push in the next 3 to 6 months. One important aspect of this is being able to push data into other systems automatically, with Oracle being a notable example.

| Where is AI most valuable?

Any process with large data volumes and complexity is massively improved by AI. Compliance, fraud and audit are all good examples. In the UK, the faster payments scheme has meant data being transferred instantly has necessitated the systems and processes to be able to check for fraud. There needs to be real time risk scoring and this is another thing we will aggressively be pushing over the next 3 to 6 months.

Thus far, we think there has been more attention focused on the customer end of the market as the volumes are so big, but now we think it is time to look at the B2B end of things to make for sleeker processes for better risk and credit scoring. There is still a large reliance on people and manual abilities, and that needs to change.

| How do you think things will evolve going forward?

Ultimately, we are all applying 'band aids' to pain points. But what is really needed is to reengineer processes that were originally designed to have humans involved and instead make them more designed around how machines can do things more quickly. This will require up and reskilling of people to manage those redesigned workflows.

The pace of change will be slow and steady. Starting upstream, making small incremental changes to feed better overall downstream results. The obvious way to do this is by creating digital data lakes and storage, making it clean and readable.

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