3 WAYS TO STREAMLINE YOUR DOCUMENT PROCESSING WITH AI

For the Insurance Services Industry

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While Artificial Intelligence (AI) has gained traction with enterprises in other industries, insurance providers have been slower to adopt. In 2016, research by Deloitte noted that less than 2% of insurance companies were currently investing in artificial intelligence technologies. This same research noted that overall funding in AI development was projected to reach $47 billion by 2020. Today, as AI has become prevalent, more and more insurance companies are looking for advanced solutions that will help them effectively process their repositories of day-to-day paperwork and the unstructured data they contain. Intelligent Document Processing (IDP) platform solutions that leverage AI technology are uniquely positioned to help these companies realize significant gains.

THE UNSTRUCTURED DATA CHALLENGE

Many insurance companies face similar challenges when it comes to handling paperwork. The unstructured nature of the data, and the sheer volume of content make it tedious and time-consuming to process manually. Mistakes, whether human or as the result of legacy solutions that aren't designed for the task, can be frequent and costly.

Intelligent document processing is a method of automating data extraction and processing that combines artificial intelligence techniques, like Natural Language Understanding (NLU) (an advanced form of AI capable of deriving meaning from entire sentences and provisions) with tools like optical character recognition, to create a single platform that processes unstructured data. For any company dealing with large quantities of unstructured data, finding an effective IDP solution is a great opportunity to improve process efficiencies, reduce costs and increase margins.

THREE APPLICATIONS OF IDP FOR THE INSURANCE INDUSTRY

Review of Prior Plans for Quoting

To prepare new quotes, underwriting teams are typically tasked with reviewing and extracting key information from prior carrier plans and submissions in addition to comparing locally issued policies against their company-issued counterparts. Over the course of a year, the process can involve thousands of documents and is onerous work. One company we spoke to, a commercial property insurance company, stated that their review team spends fully one-third of their time simply comparing documents and looking for differences in provisions. IDP-driven automation can significantly reduce the time it takes to review and compare these documents while increasing the accuracy of data extraction.

To be effective, an IDP solution should be able to:

- Accurately identify and extract key information found in terms and provisions.
- Interpret and classify extracted information.
- Compare text and, based on meaning, make it easy to search, locate and redline differences in provisions.

Many IDP solutions are based on a mainstream AI approach that combines machine learning and statistical models. They might improve on what manual labor can achieve, but these types of solutions require significant training before they can be optimized for large-scale deployments, a factor that can leave a project stalled in training purgatory while efficiency gains remain out of reach. Even after lengthy training, machine learning models may still be unable to approach the accuracy of an IDP platform that utilizes advanced natural language understanding to provide context-based meaning.

Submissions Workflow

L arge insurance companies often deal with extremely high volumes of email submissions that come in through their regional field offices. These emails contain prospect information and insurance census data (essential information about individual persons who will be insured) that must be reviewed, sorted, and then forwarded into the appropriate prospect "buckets" in the company's Customer Relationship Management (CRM) portal, where quote specialists will review the data and use it to prepare insurance quotes.

By nature, the process of reviewing, extracting and routing all this data is cumbersome, given the sheer number of different products, brokers and client details that must be correlated not just from the email content, but from information contained in attachments. Adding to the difficulty is the fact that email submissions often don't adhere to a single format; some may use an industry-standard template while others may organize data in a company-approved structure, making it more time-consuming to consistently and quickly locate key details without error.

An IDP platform solution can significantly improve the accuracy and efficiency of this submissions process by using artificial intelligence to automate the following tasks:

- Process email content and attachments to extract targeted data.
- Classify and categorize the extracted data based on the identified product, prospect and type of business.
- Route the extracted data into the CRM.

Using IDP to cut intake turn-around time from hours to seconds will allow companies to meet market demand more quickly.

Loss Run Reporting

For insurance companies, loss run reports act as credit scores that provide loss experience and claims history reporting on potential new customers. Typically, an insurance company will request at least five years of coverage history on a prospective customer and use the loss run data it receives to assess potential risk when creating policies and respective pricing.

Reviewing these reports, which may be delivered in a variety of formats, and copying the relevant information they contain into a company's underwriting system is manual work that takes time and may lead to errors that can negatively impact pricing accuracy. Automating this process is a great way to reduce costs while boosting efficiency and increasing underwriting confidence in the accuracy of your company's loss run data.

An IDP platform that leverages a meaning-based AI approach will be able to provide significant gains in speed and accuracy for these types of projects. Approaches that establish meaning through context typically require less training documents to create viable models and can move a solution more quickly into production. Other capabilities, like the ability to work reliably with a broad range of report formats and accurately extract information from complex tables, also help ensure that an IDP solution can be effective.

WEIGHING AN EFFECTIVE IDP SOLUTION

To be an effective solution for processing unstructured data, an IDP platform needs to incorporate artificial intelligence that provides the following capabilities:

- **Semantic classification**: The IDP solution should be able to classify terms and provisions based on the meaning of text.
- **Semantic data extraction**: The IDP solution should be capable of meaning-based extraction that can understand concepts and whole clauses, not just keywords, simple terms or dates.
- **Interpretation:** Many provisions need to be interpreted, not just extracted. The IDP solution should be able to read provisional text like "employee does not contribute to the cost of coverage" and automatically interpret it as "100% Employer Paid."
- **Routing based on classification and extraction**: The solution should be able to route documents (emails and attachments, for example) based on how extracted information is classified.
- **Easy to use**: The IDP solution should enable subject matter experts, without the help of AI experts or data scientists, to configure and ready the system for production.
- **Continuous learning capability**: The IDP solution should allow subject matter experts to continually validate and refine the solution's extraction and classification results.
- **Integration**: The solution should comfortably integrate with internal systems or processes.
- **Optical Character Recognition**: The IDP solution should be able to accurately read and scan structured content, typically table data.

CORTICAL.IO CAN HELP YOU REDUCE THE TIME AND COST REQUIRED TO PROCESS UNSTRUCTURED DATA

With its core offerings, SemanticPro Extract & Analyze and SemanticPro Classify & Automate, Cortical.io helps large companies improve the efficiency of their document processing. The patented, meaning-based NLU method anchored in our technology enables high levels of accuracy, while automating and expediting lengthy, labor-intensive workflows that are typical for the insurance industry.

Contact us at info@cortical.io to learn more about how we can help you automate insurance processes and extract value from unstructured data, or visit www.cortical.io