How a large US publisher accelerated the RFP process while gaining key market insights

SemanticPro Extract & Analyze Case Study



The Challenge

This large media company owns more than 40 publications and works with different agencies to sell advertising spaces. They receive approximately 100 requests per week, corresponding to about 5,000 messages per year and double as many attachments. These Requests for Proposals (RFPs) need to be classified depending on criteria like vertical market or target audience before being directed to the appropriate department.

Attempts to automate this process while keeping an acceptable level of accuracy had previously failed because the RFPs are highly unstructured documents. The requests come per email as body text or attachment, the latter can be a verbose word document or a succinct powerpoint presentation with a few bullet points. In many cases, RFP-like documents do not follow regular punctuation rules, causing issues with automation systems which are not able to detect the beginning and /or the end of sentences. The fact that the extraction targets are very diverse and, in most of cases, with very little context to learn from, makes it even more difficult for state-of-art machine learning systems to deliver satisfactory results.

Company Profile

US-Based Media Conglomerate

The Goal

Automate parts of the inbound email process for RFPs and extract key information from email requests and their attachments

The Solution

SemanticPro Extract & Analyze

The Cortical.io Solution

Leveraging the capabilities of SemanticPro Extract & Analyze, a RFP-focused solution has been developed that automatically extracts, reviews and analyzes key data from requests with a high level of precision. This solution is able to handle short texts without punctuation even with little to no context, as well as different document types like Word, Excel or Powerpoint. The solution has been successfully trained to recognize very diverse extraction targets like "Campaign name", "Client" and "Agency", as well as very specific vocabulary, like "type of ad products". Extraction results are seamlessly exported in different formats or databases, as preferred by the user. After the production phase is completed, the company envisions to implement a classification and routing solution to route the inbound emails to the appropriate departments.

The Cortical.io Impact

By shortening the review time of RFPs and providing reliable results, SemanticPro Extract & Analyze has enabled the company to respond more timely to requests, an increase in responsiveness that typically leads to a higher deal close rate. The solution is also delivering critical insights about trends and market shifts which helps the Sales team adapt their product strategy and better assess business risks and opportunities.



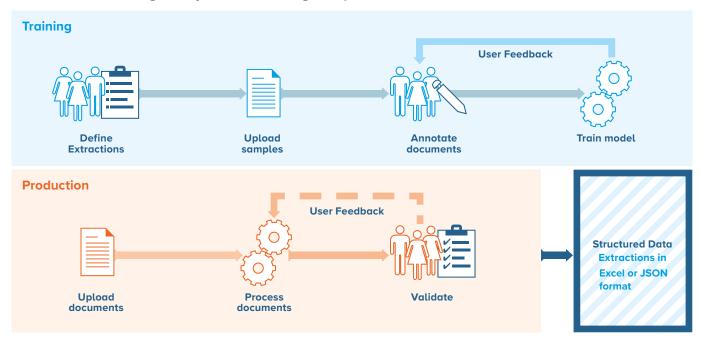
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By using SemanticPro Extract & Analyze, the company was able to automatically:

- Extract a dozen attributes from RFPs, including due date, size of opportunity, vertical market, campaign timeframe, type of campaign, target audience, what is being targeted, etc.
- Resolve the problem of missing punctuation by infering the expected punctuation based on features like words location and capitalization
- Perform these extractions with an accuracy higher than with other machine learning-based approaches
- · Filter documents below a certain confidence threshold that necessitate human review
- Export the extracted items into Excel documents, or JSON formatted files for importing into Tableau or other Business Intelligence tools

Workflow for training the system and using it in production



For more information about this case study and Cortical.io solutions, visit **www.cortical.io** or email **info@cortical.io**

