Business challenge

Elaw Tecnologia S.A. saw enormous potential in using AI technology to automate the legal processes associated with Brazil's complex labor laws, but the business needed to find the right AI provider.

Transformation

Collaborating with the IBM® Cloud™ Garage™, Elaw used IBM Watson® services to create AI solutions that streamline some of the legal processes associated with Brazil's complex labor laws. Using AI, Elaw can help its customers save time, improve accuracy and reduce legal costs.

Results

15% greater accuracy
than staff when entering legal cases into customer systems

Significantly reduces legal costs
for customers by identifying cases that can be closed with 96% accuracy

A fast and adaptable implementation
with an AI solution that required just four lawyers to train in just one month

Elaw Tecnologia S.A.

Transforming legal process automation with IBM Watson services

Founded in 2007, Elaw develops software solutions for legal management and provides the market with the latest technologies and services. Elaw is headquartered in São Paulo and serves companies throughout Brazil, as well as in Colombia, Mexico, Venezuela and Argentina. The business has more than 50,000 users, who use the company's systems to manage approximately 2.2 million lawsuits.

"In the last two years, we started to focus on AI, cognitive, to help the legal departments and law firms automate processes."

—Guilherme Bordon, Chief Executive Officer, Elaw Tecnologia SA

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Complicated legal processes

In Brazil, there are comprehensive labor laws. Enacted in 1943, the Consolidation of Labour Laws, also known as the Labour Code, outlines everything from how many hours per day employees can work to how much vacation time they should receive. Companies that fail to comply with these laws are often sued by employees for back wages, better salaries or extra hours. At any given time, there can be as many as 100 million active labor lawsuits in the country. "We have customers that have 40,000 - 50,000 active labor lawsuits, with an average of 4,000 - 5,000 new cases a month," says Guilherme Bordon, Chief Executive Officer, Elaw.

Because of the vast number of labor lawsuits, multiple companies in the country offer legal technology solutions to help streamline legal processes. Elaw wanted to take a more innovative approach to dealing with the complexities of Brazil's legal system and use AI to help its customers. "In the last two years, we started to focus on AI, cognitive, to help the legal departments and law firms automate processes," says Bordon. Developing such a solution would open up new revenue streams and help differentiate Elaw within the marketplace.

Creating cognitive solutions

Elaw approached the Cloud Garage, a group that provides consulting services using IBM Design Thinking, the Lean Startup method, agile development, and continuous delivery. Elaw wanted to create a more competitive legal solution using AI, but need help figuring out where to start. The Garage team conducted an Agile planning session with Elaw to identify common industry issues and discuss how it would be possible to create a solution to address them.

Elaw then worked with the Cloud Garage to develop cognitive solutions for its customers using the IBM Watson™ Machine Learning service. For its initial project with the Cloud Garage, Elaw trained Watson to extract the employees' demands in each new lawsuit. The employee could be asking for things such as extra wages, extra hours or back pay. Identifying this information and entering it into the necessary systems is a huge job for Elaw's customers. Elaw and the Cloud Garage team trained Watson to automatically extract these demands and register them. "We did three garage sessions," says Bordon. "After our own session, the IBM team in Brazil did two Cloud Garage sessions with their clients, so we participated in two with IBM. We shared our expertise with two other legal businesses."

For its next project, Elaw trained the Watson service to monitor the status of each of its customers' lawsuits.

"Our customers track their cases every day. And there is movement on the cases every day," says Bordon. Some status changes, such as a judge issuing a temporary order or a case nearing closure, require Elaw's customers to quickly take action. Other status changes, such as a lawyer adding a note to a case, can be ignored. Keeping track of the statuses on thousands of lawsuits is difficult. And making this situation more difficult is the fact that there are 92 court systems in Brazil, each using a different type of software.

To address these challenges, Elaw created APIs to download case information, which is publicly available, every day. The company then trained the Watson service to filter out the case movements that are unimportant, so its customers can focus on promptly addressing the updates that require action. "We trained Watson for only one month, using four lawyers," says Bordon. Because there are regional differences in the Portuguese language, Elaw used the IBM Watson Natural Language Classifier and IBM Watson Natural Language Understanding services to understand the variations in language from the different regions.

Elaw is using IBM Cloud, except when working with customers such as banks that require their data to remain on their own servers. "All of our cognitive services are running in the IBM Cloud. Cloud makes it easier for us to access information, easier to do support," says Bordon.

Automation with accuracy

Elaw found that the Watson service achieved 80 percent accuracy when extracting employee demands and entering them into customers' systems, while a human performing this task typically achieved only 65 percent accuracy.

Similarly, when using Watson to filter through case statuses, Elaw achieved 96 percent accuracy when identifying cases that should be closed. This result is particularly important because of the way companies are charged. "Companies don't pay by timesheet, they pay by active case," says Bordon. "When we used the service for our first client, we found a couple hundred cases that should have been closed, some up to eight months previously. The cost for keeping each case open is $50 per case per month. When you get large numbers like that, it makes a big

difference." For one of Elaw's customers, a large utilities company that regularly has more than 100,00 active cases, this solution could generate significant cost savings.

Bordon anticipates that Elaw will continue to grow its use of cognitive solutions for its customers and for its own internal use. In fact, the company's cognitive team grew to 22 employees in just two years. "Everything that can be automated will be automated," says Bordon. "Let's say every week a user submits a report, but one week, the user doesn't. Watson could remind the user to do the report. We want to use cognitive on our own systems."

Solution components

- IBM® Cloud™
- IBM Cloud Garage™
- IBM Watson®
- IBM Watson Machine Learning
- IBM Watson Natural Language Classifier
- IBM Watson Natural Language Understanding

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