Vol. 22 No. 21 The Journal of the Allegheny County Bar Association October 9, 2020

# LAWYERS JOURNAL

## FOCUS *on* CONSTRUCTION LAW

# The intersection of claims analysis and data analytics

By Dan Jasper

Big data and business analytics have been around for the better part of a century, but only in the last couple of decades have they begun to permeate every aspect of business. According to Valuates Reports, the big data analytics market size is projected to surpass half a trillion USD by 2026. Certain industries have not been as quick to adopt data analytics into their business model, and the legal profession falls squarely in this camp. However, over the past decade, adoption of data analytics in the legal industry has ramped up. As adoption accelerates, those who embrace data analytics and the associated technological advances will gain a clear competitive advantage.

## What Is Data Analytics?

Data analytics refers to the techniques used to sort through massive amounts of unstructured information and derive key insights from it. The data analytics process often involves combining information from non-uniform, disparate datasets in order to identify potential relationships and trends.

Data visualization is a specific subcategory of data analytics, whereby data is presented in a graphical or pictorial representation to identify trends and relationships among the datapoints more easily.

## Information Consolidation

When contractors begin work under a new contract, they are not usually planning on submitting a claim for additional costs down the line. Consequently, information vital to the claim may not be stored in a single, well-maintained dataset. In one recent case, a contractor had submitted hundreds of change orders that were charged on a time and materials basis. Although the contractor had maintained an Excel file keeping track of the change orders and the amount paid under each, the file did not include a record of the actual types of costs charged under those change orders. This information was only available across more than 1,500 T&M slips submitted along with the change orders.

To avoid duplicating amounts claimed between the change orders and the claim itself, the contractor had to identify the specific types of costs paid under the change orders. The contractor could have asked a legal or consulting team to review all 1,500 T&M slips and copy the data into a single dataset for analysis. However, this would have been very time consuming and expensive – and susceptible to human error. Instead, an Excel macro was developed to pull the relevant data from all of the T&M slips and compile it into a single Excel file of roughly 20,000 rows.

At this point, the data could be filtered and summarized with just a few easy clicks of a button. The entire process took roughly 20 hours, a massive reduction from the 200 or more hours it could have taken to individually open each T&M slip and manually copy the data to a new file. This is merely one example of how Robotic Process Automation, or RPA, a type of software that can automate mundane and repetitive tasks, can save money, reduce time and increase accuracy.

## Damages Quantification

Whenever possible, the primary source for a damage quantification should be a detailed general ledger or job cost report. For larger contracts, these datasets can easily be hundreds of thousands or even more than a million rows. Attempting to analyze this data in Excel can be unwieldy at best and downright impossible at worst. Fortunately, there is a plethora of tools available for easily and efficiently analyzing data of this size. MS SQL Server is a staple in the data analytics industry and can easily handle almost any task necessary in a damages quantification analysis. Although there may be a steep learning curve, having the knowledge and skills to compile, transform and summarize big data can save immeasurable time and money in the long run.

## Telling a Story with Data

One of the more exciting aspects of data analytics is data visualization. Not only are data visualizations more appealing in appearance, they enable users to quickly gain valuable insights that may not otherwise be apparent. Additionally, there are now many easy-to-use programs to create dashboards with a variety of visualizations.

In another recent case, a contractor had submitted over 10,000 invoices over the course of a project. A dashboard was developed that included visualizations summarizing the data in a more accessible format. Users could begin at a high level and drill down into narrower categories of invoices. They could see specific invoices of interest and then follow a link to view all of the associated supporting documentation. Both the legal and consulting teams used the dashboard, likely saving the contractor hundreds of thousands of dollars through increased efficiency.

The benefits of data visualization go beyond internal efficiencies. An attractive data visualization dashboard can assist in holding the attention of a jury, judge or arbitration panel. In complex damages cases, hours – or even days – are spent discussing cost accounting and staring at tables upon tables of numbers. Providing this information in a more digestible form can help drive a point home.

## Conclusion

These are just a few of the ways data analytics can be used in claims analysis. Data analytics is no longer the future. It is the present. Legal professionals who do not leverage data analytics to increase efficiencies and improve their work product will be operating at a severe deficit. ■

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