Case study

Artificial Intelligence, Machine Learning, & Pattern Recognition Help Indict Seven in Workers Compensation Case Involving $98 million being Fraudulently Billed
Overview

On June 6, 2016, Riverside County District Attorney, Michael Hestrin, announced that seven people were indicted for insurance fraud and conspiracy for one of the largest workers’ compensation (healthcare) fraud investigations in the County.

In two separate but related grand jury indictments, a result of a joint investigation by the Riverside County District Attorney’s Office and the California Department of Insurance, $98 million was fraudulently billed, resulting in $12.4 million being paid by 18 insurance companies allegedly defrauded in this scheme. But that was no easy feat until smartC™ was introduced as one of the tools to help the prosecution.

smartC™, an advanced big data analytics solution developed by Infinilytics, which seamlessly incorporates a2ia DocumentReader™, a handwriting recognition and document indexing toolkit by A2iA, enabled the prosecution team to gain access to complex data trapped within millions of handwritten and unstructured documents. Once the data was accessible, the software was able to quickly analyze the content and ultimately help the district attorney file charges against those individuals who filed false workers compensation claims.

Working closely with Infinilytics, a team of claims professionals, data scientists, and law enforcement professionals with a background in insurance investigations and special investigation unit (SIU) protocols, the DA successfully won their case after evidence was presented to the grand jury over a six-week period.

Seven people were indicted for insurance fraud & conspiracy for one of the largest workers’ compensation fraud investigations in County.

The results of a joint investigation revealed $98 million was fraudulently billed, resulting in $12.4 million being paid by 18 insurance companies allegedly defrauded in this scheme.
Challenge

Insurance claim files are complex by nature – their formats and mixed content, the volume of documents and supporting pages, and the variance of the data-types found within. This is a challenge that the insurance industry must manage on a daily basis as they review and manage claims processing. However, it becomes more complex when law enforcement is involved to investigate a potential criminal matter.

In the workers compensation case at hand, more than 1-million documents were obtained following multiple years of investigative and discovery work. These documents included insurance claim files, consisting of varied document types: structured forms with machine print, healthcare records and patient charts with provider’s handwritten notes, columnar data from explanation of benefits (EOBs) and other documents found within the clients’ records, including California DWC-1 forms, a key document in the start of an insurance claim that contains a mix of structured and unstructured fields, including freeform handwritten replies.

Prior to smartC™, and once seized by the investigators, these evidence files were manually read and searched for keywords and phrases, and incredulous patterns of behavior such as data that was not correlated with the claim, or suspicious treatments or payouts. This manual document handling and search procedure was time consuming and costly, and one that the prosecutors could not continue with such a case at hand.

Prior to smartC™, more than 1-million documents were obtained following multiple years of investigative & discovery work, these evidence files were manually read and searched for keywords & phrases.

These documents included insurance claims files, consisting of varied document types: structured forms with machine print, healthcare records and patient charts with provider’s handwritten notes, columnar data from explanation of benefits (EOBs) and other documents found within the clients’ records.
**Solution**

Both A2iA and Infinilytics are technology development organizations with artificial intelligence, machine learning and pattern recognition at the core of their software offerings. By integrating *a2ia DocumentReader* into smartC™, and combining this seamlessly integrated solution with Infinilytics’ predictive modeling, the Riverside County District Attorney’s Office gained a clear and concise pathway to winning their case and bringing seven insurance fraudsters to justice.

With smartC™, the prosecutors were able to quickly gather data and virtually remove all manual document interaction, including document sorting and search.

The automated solution allowed for law enforcement to:

- Automatically sort all seized documents, including the complex and unstructured documents found within insurance claims files. By allowing the software to analyze their layout and content, smartC™ was able to determine their categorization based on a holistic analysis.

- Locate and extract the data automatically, including the cursive handwritten paper notes, columnar information and alpha- and numeric content.

- Quickly analyze the extracted data and provide it to the predictive data model.

- Issue arrest warrants and file charges based on the results.
Results

Following a Grand Jury proceeding, smartC™ helped the Riverside County District Attorney’s Office prosecute a sophisticated fraud scheme that allegedly stole $98 million from 18 insurance companies.

Prior to the implementation of smartC™, much, if not all, of this investigative work was performed by hand – a long, tedious and costly endeavor. It is estimated that the use of smartC™ saved years of time in the discovery process as well as tangible resources amounting to dollars saved.

smartC™ with a2ia DocumentReader helped the Riverside County District Attorney’s Office prosecute a sophisticated fraud scheme that allegedly stole $98 million from 18 insurance companies.