AI in Workers' Compensation: Are We There Yet?

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orkers' compensation is a field of law that is particularly suited to the application of artificial intelligence, especially in the processing and analyzing of data. Current artificial intelligent (AI) tools most relevant to this area of practice involve data processing, case management and fraud prevention. While some of these applications may not be immediately available, it is likely they will emerge over the course of the next five to 10 years.

There are three primary reasons why workers' compensation is a great fit for AI. First, the life cycle of a workers' compensation claim in Pennsylvania generates numerous reports, documents, and records that are not necessarily produced in other fields of law. This yields an untapped fountain of data and metadata that can be analyzed to better understand the outcome of a claim. Second, all decisions in workers' compensation litigation are made by judges; there is no jury of peers, thus lessening the chances of unpredictable outcomes. Finally, the nature of workers' compensation practice is governed by the Pennsylvania Workers' Compensation Act and Regulations. This affords more structure than some other fields of law that may rely more heavily upon the common-law doctrines. Obviously, there are precedential decisions interpreting the act that shed light on the facts and the applicable law, but overall the practice is more structured.

Data processing opens up a realm of possibilities for management of workers' compensation claims. Imagine the implications of the added value of an automated document review of medical records, medical bills and employment records. By quickly isolating relevant facts and cross-referencing specific factors such as dates that treatments were rendered, dates a claimant left and returned to work, and any work restrictions placed upon a claimant, the application would be able to generate a profile of the claim to further assist the claims professional and lawyer.

Data processing that utilizes the algorithms of a natural language processor can also analyze information and identify potential red flags, like discrepancies in the symptoms reported by the claimant or in the history of the injury (including the mechanism of injury). Attorneys will have additional information to consider when identifying the strengths and weaknesses of each individual case, and advise their clients accordingly.

A compelling component of data processing is that individual cases can be archived for future use by the application. The more data and metadata that is stored in the archive, the better the application will become at processing in the future. This occurs through a process known as self-learning, where the AI teaches itself how to weigh the data differently over time based on the outcomes of previous cases. This data can then be used to create a predictive analysis of a new claim that would factor in similar claims in the past and advise on the outcomes in those cases. The factors could include comparing the age, mechanism of injury, assigned judge, previous injuries, and type of job, in order to generate a prediction of the outcome of the new claim.

The most science fiction-esque application of AI in the workers' compensation context involves surveillance of claimants during the life cycle of a claim. Today, most surveillance involves conducting a social media search and visual observation by an investigator. This method can have varying results that may not be definitive for the outcome of a case. However, AI-powered applications could revolutionize surveillance. An AI program taught to analyze social media could identify activities and behaviors that are inconsistent with the alleged injury based upon the photos and videos posted on the claimant's social media network. It would also be able to utilize facial recognition applications to search the internet for photos of the claimant. This could potentially unveil fraud on behalf of a claimant in a way that was previously unavailable through the current means of natural language searches through the social media's integrated search bar.

While the benefits of AI in workers' compensation claims may prove beneficial, we are not quite there yet. The self-learning capability could lead to unhelpful outcomes if the program begins to weigh the data incorrectly. Applications need to be tweaked and improved constantly, and the people utilizing the applications need to be trained on their uses and limitations. That said, the application of AI to certain tasks within the claims management and litigation processes is compelling, and may ultimately lead to a smoother life cycle and resolution of a workers' compensation claim for all parties involved.

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