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Understanding the Impact of Artificial Intelligence and Machine Learning on Legal Bill Review in Claims Litigation

I. Introduction to Artificial Intelligence (AI)

Before AI-enabled Legal Bill Review

The insurance industry has long been familiar with legal bill review for its claims litigation efforts. Because of the large volume of invoices and the high amount of legal spend; having a detailed bill review process is necessary to monitor compliance and to manage costs. Prior to AI-enabled legal bill review, reviewers had to rely on rules-based data to comb through tomes of detailed billing guidelines. Rules-based “if this, than that” criteria did not catch subtleties which could result in lower guideline compliance and slower claims resolution. The development of e-billing software incorporated matter management, allowing for easier budgeting, bill review, and data gathering, for better outside spending control and efficiency. This made it easier for end users at the insurance carrier to adjust the invoices. Despite those advancements, increasing workloads coupled with the time and focus a good bill review demands put a strain on resources.

Let’s look at common issues that law firms, claims professionals, and bill reviewers faced before AI-enabled bill review.

From a law firm’s point of view, some attorneys’ time entries were rife with billing errors – over-billing, using inefficient resources, rounding up time and padding hours, just to name a few, crossing into very murky ethical waters. There are many documented examples of attorneys working on multiple cases simultaneously and accidentally submitting 26 hours in a 24-hour period. Improper billing practices, if sufficiently egregious, can result in prosecution, termination, repayment, and fines – and in some cases, disbarment. To honor their fiduciary responsibilities and to the tripartite relationship, law firms, in order to provide efficient and honest billing, many law firms would have a senior attorney or partner carefully review invoices and make adjustments before submitting invoices for payment. That practice, while highly commendable, is extremely time consuming, unprofitable, and is often unnoticed by the insurer. Generally, law firms received little feedback from their clients regarding how to improve or to comply better with guidelines, or regarding how their law firm stacked up against their competitors. As a result, even client-

focused law firms committed to effectively serving their clients more effectively struggled to demonstrate that commitment and to prove their added value.

From the insurer perspective, carriers process millions of claims a year, and many millions of invoices. E-billing has simplified the submission process, but reviewing those invoices for guideline compliance remained a time and resource challenge. Claims professionals focus on claim strategy and resolution, generally relying on law firms to follow billing guidelines and to submit invoices timely and accurately. Typically, there are several different claim handlers working with the same law firms. As a result, even where a claim organization required careful review of invoices for guideline compliance, the adjustments made on invoices and communications to law firms varied widely among individual claim professionals. The resulting communications back to the law firms were inconsistent and usually not very specific regarding how better to meet compliance standards.

Adding **bill reviewer** teams reduced some of those problems, but still left in place time-consuming, manual processes that failed to effectively capture and leverage the rich information embodied within the many millions of pieces of information and metadata contained in the invoices and accessible through electronic tools. Not every invoice line item is of equal importance. Yet, aside from perhaps focusing on more expensive entries, each invoice line item was manually read and analyzed, with the same level of scrutiny, consuming roughly the same amount of time. Further, reviewers could not automatically adjust for individual law firm and lawyer billing tendencies, even though all law firms and attorneys have unique billing behaviors – like fingerprints – making it hard to identify repetitive billing behaviors, not to mention the difficulty to easily measure performance or get metrics and benchmarks.

Before AI-enabled legal bill review, teams only had the guidelines themselves and possibly a rules-based e-billing platform as their beacon in the sea of thousands of invoice lines to audit. The process was neither consistent nor streamlined. One bill reviewer would interpret an invoice line in one manner, while another could interpret it in an entirely different manner. Communications to law firms regarding billing violations were all across the board, creating confusion and compounding the problem. There was simply no common denominator-- no true, objective calibration.

What is AI?

Just like “big data” and “internet of things,” AI sounds really interesting and innovative, but we need to make sure we’re all speaking the same language. When we talk about AI in the context of Legal Bill Review, what exactly are we describing?

AI applies a large amount of computing power to find patterns in massive amounts of data using algorithms. It is exceptional at detecting patterns in large data sets, but it cannot generate brilliant new ideas or have breakthrough insights the way that humans can. It is emotionless and can neither appreciate nor communicate the implications of a situation in an empathetic manner.

AI is not just one thing, it is an aggregation of capabilities, – there are several categories of AI that work in different ways. Those that are particularly helpful in the legal industry include:

Machine Learning exposes computer programs to large data sets so they can find patterns. Repeated feedback iterations allow the programs to learn, improve, and deliver increasingly accuracy results. Techniques like neural networks, deep learning, clustering, and others fall in the category of machine learning.

Natural Language Processing (NLP) is a way for computers to break down written or spoken language into concepts and entities and to build relationships in order to analyze language like any other data type.

Robotic Process Automation provides computerized workflow and applications that can take over the mundane, repetitive – and often boring – aspects of various business processes so they require limited attention from people.

Understanding these specifics of AI will help you to appreciate why it is so well suited to supplement the work of claims, legal, and bill review professionals.

You probably do not even realize how long AI has been around, or how much it, along with Machine Learning, impacts day-to-day life. Autopilots in commercial airlines are a surprisingly early use of AI technology that dates as far back as 1914, depending on how loosely you define autopilot. In our context, it means controlling an aircraft in flight. Fast forward to today, where the New York Times reported that the average flight of a Boeing plane involves approximately just 7 minutes of human-directed flight, which is typically reserved for takeoff and landing.

Other, more obvious uses of AI are prevalent in our daily lives. Those spam filters in your email box use rules-based filters to catch certain words like “online pharmacy,” but a spammer can quickly work around that. With AI, spam filters “learn” from a variety of signals, such as certain words in a message, as well as the message metadata – where it’s sent from, who sent it and so on.

Social sites like Facebook use AI to personalize your newsfeeds and ensure you are seeing posts that interest you. Digital assistants like Siri, Alexa, Cortana, and Google Assistant use AI to provide information or execute tasks. Uber uses Machine Learning to determine ETA’s for rides.

II. The impact of AI-enabled legal bill review

Applying AI to improve law firm billing efficiency and to control legal spend

Scientific research has proven that the human mind can generally grasp four thoughts at a time. Anyone engaged in bill review knows that it can be mentally exhausting to analyze detailed, abstract, and complex task descriptions for hours on end. As a result, it is almost impossible for a legal bill reviewer to comb through several invoice line items and effectively evaluate them. Trying to perform such analyses hour

after hour diminishes speed, accuracy, and effectiveness. Using AI as part of the bill review process improves accuracy and consistency as well as efficiency, resulting in better-controlled legal spend. A single computer using AI will perform all these analyses and thousands more, effortlessly, hour after hour with an increasing, not decreasing skill level.

AI allows users to focus, zeroing in on those invoice line items deserving the most scrutiny. AI can “stack rank” invoice line items from those most likely to exhibit guideline violations to those least likely to do so. This allows bill reviewers to expend the most energy reviewing the right line items. In doing so, the human visualizes the lawyer performing the work and the work product produced, while AI reduces the frequency of engaging in this thought cycle making the reviewer faster and better. Ultimately, the human will decide if there was or was not compliance and that decision will teach the machine, which will make the machine better in the future and the human even more efficient. The human reviewer has more time to work with the law firm or lawyer, providing insight into how billing practices need to change. The computer generates better and better algorithms, resulting in humans generating better and better communication and ultimately, better invoices.

AI makes bill review smarter, more efficient, and effective. The AI points bill reviewers to the low-hanging fruit, providing each invoice line with a high, medium, and low probability of a violation. From that, bill reviewers can aptly prioritize the invoice review and catch more billing violations than would normally meet the naked eye alone. It accelerates the bill review process by cutting through the “noise” in the invoice volume, allowing additional focus on the lines that are truly prime for violations. Moreover, it allows for a more standardized bill review process, where the AI is very much like a homing device across a team of reviewers with diverse perspectives.

Real-life examples of machine learning impacting legal bill review

If the insurer advises its law firms that their invoices are subject to AI review, they will quickly become more scrupulous in guideline compliance. **Law firms** will appreciate that AI and business intelligence (BI) make compliance against a complex set of guidelines easier and more efficient for the insurer to examine. Ultimately, law firms will respond both defensively and, if smart, offensively. Defensively, firms will impose more discipline on their billing practices to reduce adjustments and to compare favorably against other law firms. Offensively, firms should request results and apply focused training to those individuals who score poorly. The firm should track and tout its improvement and performance against its competition. Such practices benefit both the firm and the carrier. The user of these tools empowers law firms with a positive feedback loop that encourages behavioral change by making it easier to submit compliant invoices the first time. Reducing the cycle time of having an invoice paid and the costly process of appeals.

AI provides **claims organizations** with the ability to provide easily secured, accurate information regarding billing practices back to their law firms. Both timekeeper and law firm level analyses and information is automatically captured and can easily be shared with the law firms. AI produces metrics and reports that would not exist without it. The process of law firm feedback is easy to perform and can take many forms: guideline performance metrics, invoice adjustment metrics, performance against peers, and so

on. This feedback can occur via “report cards,” individual invoice results transmissions, or face-to-face meetings. Regardless of how this information is used and transmitted, it will reduce cost by increasing billing guideline compliance without sacrificing the quality of the legal work being performed on claims defense.

As **bill reviewers** become acquainted with an AI-integrated bill review process, they not only learn of individual invoice line item violations, but also more importantly, learn just who does and does not violate guidelines, how often, and at what cost. Over time, insight into law firm cultures and billing “tactics” of individual billers become clear and can be contrasted with “average” or “benchmark” results. Some law firms will improve compliance others will not. Some individual timekeepers will improve their billing practices, others will tweak the way they enter time to try to avoid being caught. Over time, the law firms and lawyers that wish to collaborate with the client will become obvious, as will those who do not. This allows carriers to work with the firms they feel are most attentive to their fiduciary responsibility to both the carrier and policyholder.

III. Benefits of implementing AI in the bill review process

Identify behaviors to change. Asking firms and lawyers to read and apply billing guidelines amounts to nothing more than asking them to “try harder,” without consequences for failing to do so. Leveraging AI and BI results makes changing behavior efficient and principled. The violations identified are not ethereal, but real. The specific areas violated per firm and lawyer along with their associated cost can be examined and addressed. Additionally, law firm compliance per violation type can be compared across law firms and lawyers, allowing easy identification of those who do and do not comply.

Gain better control over legal spend and enforce guideline compliance. To best leverage bill review procedures, the relevant guidelines need to be examined and a separate “rule” should be built around each guideline requirement. Every time a violation is identified, it needs to be linked to a specific rule. By applying this discipline, it is very easy to identify what specific violations occur by law firm and lawyer.

AI brings a completely new dimension of reporting capabilities to the bill review process. By creating rules and associating the rule violated with the specific line item containing the violation, detailed metrics can be generated, focusing precisely on who did what, when, how often, and at what cost. The addition of AI in billing review allows actionable reports to be created to address a myriad of billing issues allowing the violator to take action.

AI enhances, does not replace humans. AI is not 100% perfect – it helps make our jobs easier and makes the analytics better. For example, AI can identify a picture of a cat as a cat, and a dog as a dog, but might not be able to recognize a dog dressed up like a cat. Humans can make such distinctions and help educate AI to do the same by providing feedback to the machine, addressing its errors; the machine now knows there is a difference and remembers the distinction forever.

Unlike humans, AI picks out subtle features and patterns in billing, at breathtaking speed without ever making errors due to exhaustion or boredom. Humans continually coach AI by putting information into context that AI can understand. AI supports humans by analyzing thousands of data points simultaneously,

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<https://www.law.com/insidecounsel/2017/08/23/how-ai-machine-learning-big-data-are-affecting-th/>

unveiling hidden billing patterns, and generating consistently high quality review results at incredible speed. Humans reciprocate by helping AI get even smarter.

So, what does the **future** of AI look like in claims litigation and the legal profession? AI will continue to have an impact on the claims management, claims defense, and the practice of law. We are starting to see it in timekeeping solutions to streamline and simplify the process of tracking lawyer's billable hours. AI can also assist lawyers with contract review by "learning" from new contracts as they are uploaded into its database. Another area that can leverage AI is online negotiation tools that that can help evaluate and predict what a claims case would cost. Another area that AI will continue to impact is legal research. ROSS augments keyword search to speed up research and improve relevancy of items found to support new cases.

IV. Summary

As advanced and useful as AI and machine learning is, it represents an enhancement to how claims professionals, bill reviewers, and attorneys will work in the future, not a replacement for them. Law is a complex discipline and, as a result, lawyers routinely perform a broad spectrum of tasks requiring a wide range of knowledge and skill. Claims professionals understand the nature and impact of their claims, an understanding of the underlying business objectives, and maintain the relationships with their firms. Bill reviewers know their carrier-specific guidelines and the expectations of their claims department. AI's remarkable ability to perform well at limited tasks, such as identifying specific patterns, does not extend to the far-ranging skillsets that attorneys, claims adjusters, or legal bill reviewers bring to their roles. The real value is in combining the efficiency of targeted AI applications with the expertise of these human professionals.