Whither AI Contract Applications?

Authors: Tang Yanying

Date: 2024-01-23T00:00:00+00:00

Abstract

"Deconstructing Contracts: Contract Analytics and Contract Standards" is Chapter 3 of "Data-Driven Law". Contract standards and contract analytics play a vital role in legal work in the new era. In this chapter, author Martin, as CEO of the legal technology company KMStandards, provides a brief introduction to the framework of contract standards and the principles of contract analytics.

Full Text

Preamble

This reflection examines *Deconstructing Contracts: Contract Analytics and Contract Standards*, the third chapter of *Data-Driven Law*. Contract standards and analytics play a vital role in contemporary legal practice. The author, Martin, who serves as CEO of the legal technology firm KMStandards, provides a concise introduction to the framework of contract standards and the principles underlying contract analysis in this chapter.

Analysis of Article Content

Martin argues that establishing contract standards enables legal professionals to draft and review contracts more efficiently. On one hand, as law firms increasingly globalize and handle cross-border matters, a unified contractual framework becomes essential for large firms seeking to standardize their operations and scale effectively. Martin proposes a Contract Standards framework comprising nine categories of provisions: Bargain, Exchange, Term, Representations/Warranties/Acknowledgments, Conditions, Obligations, Rights, Remedies, and General Provisions. With such templates, lawyers can generate contracts by simply inserting matter-specific rights and obligations into a standardized structure, thereby avoiding omissions and reducing drafting time to focus on more analytical work. On the other hand, given linguistic variations

across jurisdictions, legal texts require uniform stylistic conventions. Martin emphasizes that internal consistency in language style is crucial for seamless cross-border practice, exemplified through guidelines on his Contract Standards website: modal verbs are restricted to *can, may, must, shall,* and *will*, while sentence structure must follow subject-verb-object order. Such standardization prevents stylistic divergence among individual lawyers.

Martin further contends that developing contract analysis software can address the prohibitively high labor costs in the legal field. According to statistics from KPMG and Ernst & Young, traditional manual contract drafting and review consume enormous human and material resources. While legal work is a specialized profession, attorneys should concentrate on substantive expertise rather than repetitive drafting tasks—many aspects of which can be assisted by technology, freeing professionals to devote more time to complex analytical work. As Richard Susskind analyzes in *Tomorrow's Lawyers*, legal services are undergoing a transformation from customized to standardized, systematized, packaged, and ultimately commercialized offerings. Historically, when the legal industry was less developed, services were expensive and exclusive, with practitioners crafting bespoke solutions and contracts for elite clients. However, as legal services have democratized, customization no longer satisfies market demands: it strains firm resources with repetitive, low-expertise work while clients seek more cost-effective alternatives. This dual pressure has driven the commercialization of legal services, enabling technology to handle foundational tasks requiring minimal specialized skills.

Reflection on Key Issues

Drawing from his extensive experience in software development and legal practice, Martin offers insightful explanations of contract analysis mechanics. However, the chapter focuses heavily on technical aspects while providing relatively superficial legal analysis. Through further reading and research, two critical legal questions emerge: First, how should liability be allocated when AI contract review errors cause financial or other losses? Second, how should legal professionals address inherent defects in contract database sources?

Liability Allocation in AI Contract Review

The first question concerns responsibility when AI-reviewed contracts contain errors. Two underlying issues must be examined: whether computers possess personhood or consciousness, and whether they can be held accountable. Ray Kurzweil predicts in *The Singularity Is Near* that by 2025, artificial intelligence will surpass human intelligence—a forecast supported by exponential growth in computing power, though still unproven in practice. Currently, AI remains in a dependent relationship to humans. While AlphaGo's 2016 victories over world champions demonstrated that machines can master complex, creative activities beyond simple repetitive tasks, legal services involve value judgments

that incorporate social ethics, public values, and normative considerations—dimensions that cannot be reduced to formulas or algorithms. The question of AI consciousness reaches philosophical depths: Kurzweil asserts AI undoubtedly possesses human-like consciousness, while Bill Gates argues AI may have consciousness, but of a fundamentally different form. The latter perspective is more compelling; if AI consciousness mirrored human consciousness, how could we account for human emotions like joy and sorrow? While AI can make choices through algorithmic processes that may transcend their programming, this does not constitute human consciousness but rather an alternative form of awareness.

Regarding AI accountability, extensive scholarship exists both domestically and internationally, particularly sparked by autonomous vehicle liability. The 2016 amendment to the Vienna Convention on Road Traffic transferred driving responsibility from human operators to autonomous systems. Two primary viewpoints have emerged: the "independent liability" theory, which argues that AI should bear criminal responsibility if it meets criteria of harmful conduct and free will, proposing specific penalties such as fines, liberty restrictions, or data deletion; and the alternative view that assigns liability to manufacturers, owners, or users. Most Chinese scholars currently hold that producers and designers should bear primary responsibility, treating AI as a product subject to strict product liability exemptions. Some suggest AI "independent personality" could revolutionize litigation management, but as a tool, AI lacks the capacity to bear responsibility. Destroying AI as punishment would neither compensate victims nor reduce accident probability.

Synthesizing these considerations, liability for AI contract review should rest with legal service providers—both institutions and individuals—mirroring tort liability principles. This approach ensures clients have recourse against capable entities while preventing providers from evading responsibility by shifting blame to AI systems.

Addressing Defects in Contract Database Sources

The second question concerns how legal professionals should manage inherent defects in contract databases, which manifest in two primary dimensions.

First, database source defects pose significant challenges. Most law firms rely on internally accumulated data, which benefits large or well-established firms but disadvantages smaller or newer practices that require substantial time to build robust databases. This disparity risks widening the gap between large and small firms. Additionally, AI-determined contract language may not represent optimal choices but merely reflect majority usage patterns. Martin identifies TF-IDF algorithms as commonly used in contract analysis software to extract distinctive keywords—terms frequently appearing in one document but rarely in others. While big data provides essential "fuel" for AI development, legal AI systems fundamentally depend on large volumes of high-quality data. Without premium data sources, the professionalism and authority of AI-generated legal

services are severely compromised.

Second, algorithmic defects present equally serious limitations. AI cannot make independent value judgments; it merely replicates the value judgments embedded in training data. Research has shown that employers favor candidates with names perceived as white over those sounding African, and AI recruitment systems amplify this human bias into discriminatory outcomes. The resulting bias does not originate from the algorithm itself but from the input data. Similarly, crime reporting data often reflects geographic biases based on police patrol patterns rather than random distribution. AI contract review faces comparable constraints from both algorithmic limitations and technological capabilities. More concerningly, deep learning systems can reprogram themselves in ways that even their programmers cannot comprehend, making it difficult to detect hidden biases or determine whether they stem from coding errors or flawed datasets.

Foreign scholars have proposed several recommendations with relevance for China. First, database and terminology selection should incorporate multiple factors rather than relying on single sources or frequency metrics alone. Second, courts could develop precedents interpreting specific terms to guide usage—while China is not a common law jurisdiction, bar associations and other self-regulatory organizations could issue similar terminological guidelines. Third, AI should function purely as a tool, with lawyers retaining decision-making authority over subjective elements in contract drafting. This approach prevents algorithmic bias from infiltrating critical provisions while maximizing AI's utility as an auxiliary instrument.

Future Development Prospects

International trends demonstrate that many countries have established reliable contract analysis systems. LawGeex, an Israeli legal tech startup, developed the world's first AI-based contract review platform, integrating text analysis, machine learning, natural language processing, and legal expertise to identify deficiencies and legal risks. Thomson Reuters launched Westlaw Edge Quick Check in 2019, enabling lawyers to perform contract analysis and case retrieval within Microsoft Word, significantly enhancing workflow efficiency. By contrast, China has yet to develop authoritative, reliable contract review software or platforms. Domestic offerings such as "Lightning Performance" by Tianjin Daoben Technology, "Find Big Lawyer" by Shenzhen Zhaodazhuang Legal Technology, "iContract" by Shanghai Yingzefu Information Technology, and "Smart Contract" by Quanmin Internet Technology (Tianjin) provide basic drafting and review functions but suffer from low quality and immature mechanisms. While AI contract review holds significant promise for assisting legal professionals and reducing labor costs, challenges including algorithmic bias and data quality/quantity deficits remain. Nevertheless, its development prospects are bright. Large Chinese law firms and corporations can leverage such tools in their legal operations. The most urgent tasks involve establishing professional,

authoritative AI contract review platforms and developing appropriate regulatory frameworks for their deployment.

Note: Figure translations are in progress. See original paper for figures.