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COMMENTARY

GPT-3: REAL DOCUMENT AUTOMATION ON THE HORIZON

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Prophecies about inevitable and imminent changes in the provision of legal services and the profession of law itself have proliferated in recent years in the wake of rapid advances of technology.[1] Artificial intelligence and machine learning and their implementation in natural language processing (NLP) applications is one facet of these technologies that offers great promise but has been adopted with mixed results. For example, the major electronic legal research providers have already implemented NLP technology into their platforms to enhance search results and suggest further relevant resources to their users,[2] but the technology's promise has not been fully realized in the realm of "document automation."[3]

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[1] *See, e.g.*, RICHARD SUSSKIND, TOMORROW'S LAWYERS: AN INTRODUCTION TO YOUR FUTURE, 2nd ed. 2017.

[2] Nicole Black, *Lawyers Have a Bevy of Advanced and AI-Enhanced Legal Research Tools at Their Fingertips*, ABA JOURNAL: PRACTICE MANAGEMENT (Nov. 22, 2019, 8:30 AM CST), https://www.abajournal.com/web/article/lawyers-have-a-bevy-of-advanced-and-ai-enhanced-legal-research-tools-at-their-fingertips.

[3] Despite its name, "document automation" (or "document assembly") generally refers more to the automation of systems and workflows for document production rather than the actual generation of documents, at least beyond the application of templates and forms. *See, e.g.*, AIMultiple, *The Ultimate Guide to Document Automation in 2020*, AIMULTPLE: DOCUMENT AUTOMATION (May 30, 2020), https://research.aimultiple.com/document-automation/ (overview of document automation and what it is commonly understood to comprise); Stephanie Wilkins, *Legal Document Automation Software That Saves Time and Helps You Build No-Code Apps*, ABOVE THE LAW (Dec. 12, 2019, 3:44 PM), https://abovethelaw.com/2019/12/legal-document-automation-software-that-saves-time-and-helps-you-build-no-code-apps/ (an advertising feature for document automation software company Documate that shows what a particular well-known company considers to comprise "document automation").

Is this about to change? Earlier this year, the commercial laboratory OpenAI introduced GPT-3,[4] the third generation of its GPT series of language prediction models.[5] These models are artificial intelligence systems that are "pre-trained" with vast amounts of text from which they "learn" relationships among different textual elements such that they can then apply those relationships, or "parameters," to novel linguistic tasks, including text generation. GPT-3 dwarfs similar systems in scale: it was trained on millions of text samples and has a capacity of 175 billion learning parameters[6]—more than ten times the 17 billion parameters of the next largest language model, Microsoft's Turing Natural Language Generation (T-NLG).[7] This scale gives GPT-3 the ability to generate 200-word news articles almost unidentifiable as not human-written.[8]

The document automation company AXDRAFT announced only weeks ago that it would soon integrate applications of GPT-3's text generation into its platform, initially to provide features: 1) simplifying legal documents to aid their comprehension by readers who are not legally trained, 2) "extracting data from any document . . . to automatically populate AXDRAFT templates," and 3) "extracting a classifying metadata from any legal document, to simplify search and replace of information across contracts."[9]

Although AXDRAFT's proposed GPT-3 text generation applications certainly promise to save time and effort in document workflows, they stop well short of usefully generating even portions of a contract beyond what existing template-based technology already does. Despite its advancement over its predecessors, GPT-3 has limits that preclude its ability to truly automate the drafting of freely structured documents like contracts. GPT-3's creators found a number of limitations, including semantic repetition at the document level, loss of coherence "over sufficiently long passages," and occasional non-sequitur sentences or paragraphs.[10] However, AXDRAFT's applications manage to creatively avoid these limitations and exploit GPT-3's unprecedented power, particularly the simplification of contract terms for easier comprehension by nonlawyers.

GPT-3 is a major advance in artificial intelligence-enabled natural language processing. Although it may not be capable of truly automating the drafting of legal documents, clever companies and firms like AXDRAFT can still find ways to exploit the new technology to add value and increase efficiency. And, maybe for their efforts they will be in a better position to benefit from full drafting automation when it finally arrives.

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[4] "Generative Pre-trained Transformer," descriptive of the model's type. For a good general explanation of the technology for the lay reader, *see* Tiernan Ray, *What is GPT-3? Everything Your Business Needs to Know about OpenAI's Breakthrough AI Language Program*, ZDNET: ARTIFICIAL INTELLIGENCE (Aug. 25, 2020, 5:39 PM GMT), https://www.zdnet.com/article/what-is-gpt-3-everything-business-needs-to-know-about-openais-breakthrough-ai-language-program/.

[5] Tom B. Brown et al., Language Models are Few-Shot Learners, version v4 (July 22, 2020), arXiv:2005.14165v4 [cs.CL], https://arxiv.org/abs/2005.14165.

[6] *Id.* at 8.

[7] Corby Rosset, *Turing-NLG: A 17-Billion-Parameter Language Model by Microsoft*, MICROSOFT: MICROSOFT RESEARCH BLOG (Feb. 13, 2020), https://www.microsoft.com/en-us/research/blog/turing-nlg-a-17-billion-parameter-language-model-by-microsoft/.

[8] Brown, *supra* note 5, at 25-26.

[9] artificiallawyer, *Axdraft Doc Automation + CLM Platform Taps GPT-3*, ARTIFICIAL LAWYER (Oct. 13, 2020), https://www.artificiallawyer.com/2020/10/13/axdraft-doc-automation-clm-platform-taps-gpt-3/.

[10] Brown, *supra* note 5 at 33.