TEXAS Law
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AI IN THE STUDY AND PRACTICE OF ADMINISTRATIVE LAW

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Outline

- **Background**
  - **What Is AI?**
  - **ChatGPT as a Large Language Model (LLM)**
- **AI Capabilities**
  - **What Can LLMs Do?**
  - **What Can AI Do More Generally?**
  - **Substantial Use of AI by Federal Agencies**
- **Concerns with ChatGPT (and likely AI more generally)**
- **Lessons, Issues & Approaches**

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Background:
What Is AI?

- **Artificial Intelligence (AI) is often broadly defined.**
  - "Artificial intelligence (AI) refers to <u>systems that display intelligent behaviour by analysing their environment and taking actions—with some degree of autonomy—to achieve specific goals</u>. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. … robots, autonomous cars, drones …)."

  Communication from the [European] Commission …, Artificial Intelligence for Europe, Brussels, 25.4.2018 COM(2018) 237 final.

Background:
ChatGPT as a Large Language Model

- "ChatGPT is a large language model … that predicts the next word in a sequence of words. By iterating …, it can generate lengthy text."
  - N.B.: Likely better to replace "word" & "words" with "token" & "tokens"
  - Training set="very large body of natural language text taken from news, books, journal articles and much of the publicly accessible internet"
  - "Reinforcement Learning with Human Feedback"
  - Capabilities include generating/editing natural language text in a specified style; analyzing insurance coverage; drafting contracts/code.

  Paul Geertsema et al., ChatGPT & Large Language Models: What Are the Implications for Policy Makers? 8-9 (Mar. 2023), at https://ssrn.com/abstract=4424048.

What Can LLMs Do?
Natural Language Responsiveness

- Replying to natural language inputs with natural language text
- LLM can pass bar exam & law school essay exams.
    - Daniel Martin Katz et al., GPT-4 Passes the Bar Exam, https://ssrn.com/abstract=4389233 (Apr. 5, 2023).
    - Andrew Blair-Stanek et al., GPT-4's Law School Grades: Con Law C, Crim C-, Law & Econ C, Partnership Tax B, Property B-, Tax B, https://ssrn.com/abstract=4443471 (May 24, 2023) (GPT-4 with max. 0.0 consistency setting—not ChatGPT's 0.7 setting).
    - Jonathan H. Choi et al., ChatGPT Goes to Law School, J. Legal Educ. (forthcoming), https://ssrn.com/abstract=4335905 (May 19, 2023) ("[On multiple-choice & essay questions], ChatGPT performed on average at the level of a C+ student ….").

What Can LLMs Do?
Document Review & eDiscovery

- LLMs can scan huge document troves, pulling out highlights.
    - Attorney reported using LLM to scan past testimony by expert for potential inconsistencies.
- Contract review
    - "AI-powered contract review tools … analyze contracts and extract relevant information such as clauses, dates, and parties involved. These tools can identify potential risks and errors …."
        Nick Noonan, Creative Mutation: A Prescriptive Approach to the Use of ChatGPT and Large Language Models in Lawyering, https://ssrn.com/abstract=4406907 (Mar. 13, 2023).

Title search: AI in the Study and Practice of Administrative Law

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