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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 systems that display intelligent behaviour by analysing their environment and taking actions—with some degree of autonomy—to achieve specific goals. 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.

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## 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>.

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## 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 ....”).

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## 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).

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