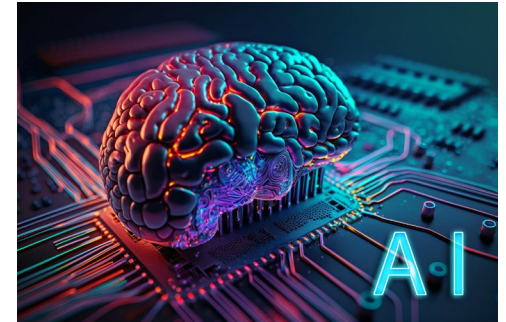


Promises and Perils of Artificial Intelligence

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Overview

- Three themes
 - ▣ The promise of AI
 - ▣ The perils of AI
 - ▣ Potential solutions and a path forward
- Definitions
 - ▣ AI: the use of technology to automate tasks that normally require human intelligence
 - ▣ Machine learning (ML): a broad category of computer techniques that detect and learn from patterns in large amounts of data
 - E.g., email spam filters, Netflix recommendations



Agenda

- The promise of AI
- The perils of AI
- Potential solutions and a path forward

Promise of AI

- Automation and predictive analytics have enormous potential to benefit society
- PriceWaterhouseCoopers estimates that AI will boost the global economy by \$15 trillion by 2030



Promise of AI

- Health and medicine
 - ▣ Accelerating drug discovery and development
 - DeepMind (owned by Google) has predicted the shape of nearly every known protein
 - ▣ Detecting breast cancers that doctors miss
- Environmental applications
 - ▣ Modeling climate change and adjusting turbines and propellers to maximize efficiency
 - ▣ Designing more efficient solar panels



Promise of AI

□ Poverty alleviation

- ▣ UN Global Pulse uses mobile phone information to track poverty and direct food and health policy
- ▣ Improving the accuracy of credit assessments and increasing lending to underserved communities



**UN
GLOBAL
PULSE**

□ Government and legal practice

- ▣ Federal agencies are using AI to manage enforcement, caseloads, and benefits
- ▣ Increasing productivity for lawyers

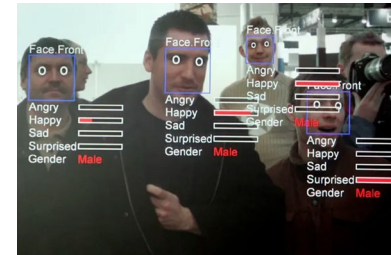


Agenda

- The promise of AI
- The perils of AI
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Perils of AI: Threats to Privacy

- Machine learning systems require enormous amounts of data
 - ▣ Large language model underlying ChatGPT was trained on 300 billion words scraped from the internet, including personal information
- Drives greater demand for collecting personal data
 - ▣ Coupling public cameras with AI-based facial recognition threatens privacy
 - Oakland, Berkeley, and SF have banned it
 - ▣ FTC has ordered “algorithmic destruction” of models trained on data obtained in violation of privacy laws



Perils of AI: Bias in Automated Decision-making

- Machine learning algorithms and the data that train them can reflect systemic bias:

- Amazon's AI system for screening CVs discriminated against women

- It was trained on data from recent applications, which were overwhelmingly from male candidates

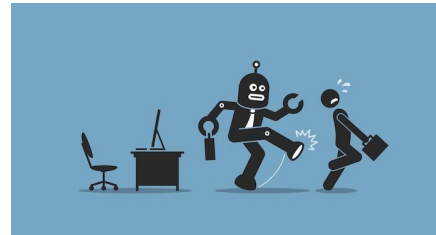


- A widely used healthcare algorithm predicted future medical needs by looking at past medical expenditures

- Discriminated against Black patients, who historically have had less access to healthcare

Perils of AI: Automation and Unemployment

- AI promises great efficiencies
 - ▣ But automation can translate to replacing human workers
- Likely to hit blue-collar workers the hardest
 - ▣ Council of Economic Advisors: self-driving cars threaten 2-3 million driving jobs in the U.S.
- Will affect white-collar workers as well
 - ▣ Goldman Sachs: 44% of legal tasks could be automated by generative AI
- Hard to predict
 - ▣ AI may end up creating many jobs and augmenting others



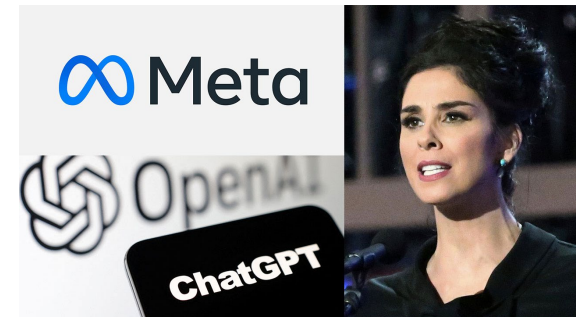
Perils of AI: Deception, Fraud, and Misinformation

- ❑ Deepfakes on YouTube are surprisingly convincing
- ❑ Search engines using AI (e.g., Bing) sometimes produce incorrect information
- ❑ Spread of misinformation on Facebook and Twitter
- ❑ Generative AI like ChatGPT and Google's Bard raise concerns over academic dishonesty



Massive Copyright Infringement

- Massive potential copyright infringement from:
 - ▣ Inputs: using copyrighted texts, images, and other content as training data for generative AI
 - ▣ Outputs: infringing content produced by generative AI
- Unclear if training ML systems on copyrighted content constitutes fair use
- Several lawsuits already initiated



Agenda

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- Potential solutions and a path forward

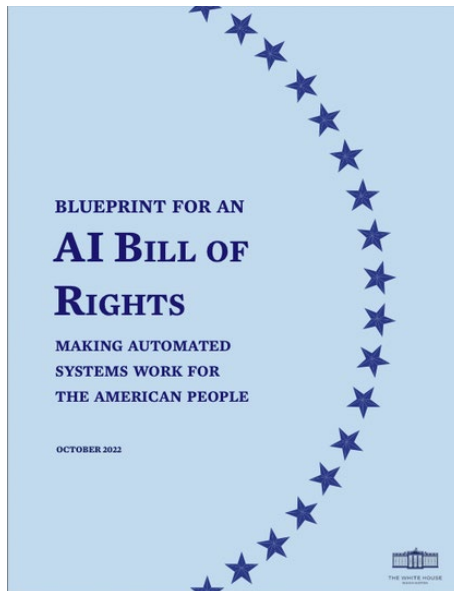
Potential Solutions and a Path Forward

- How to unlock the potential for AI while curbing its harms?
- Traditional legal regulation
 - ▣ European Union's General Data Protection Regulation
 - Proposed Artificial Intelligence Act
 - ▣ Federal statutes concerning privacy, discrimination, false advertising, copyright infringement
 - ▣ California Consumer Privacy Act



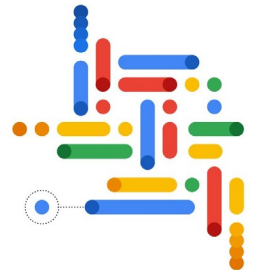
Potential Solutions and a Path Forward

- Aspirational frameworks and self-regulation
 - Biden Administration's Blueprint for an AI Bill of Rights
 - Voluntary “guard rails” agreed to by leading AI firms
 - Codes of ethics from companies



Google Cloud

Introduction to
Responsible AI



Potential Solutions and a Path Forward

□ Technological solutions

▣ Technical protections for privacy

- E.g., k-anonymity, differential privacy

▣ Advances in AI sophistication to detect bias

▣ Synthetic data

- Data augmentation
- Model-based synthetic data
- Simulators



Conclusion

- AI holds enormous potential to benefit society
- AI also has significant power to harm society
 - ▣ Privacy violations, bias in automated decision-making, fraud and disinformation, massive copyright infringement
- A mix of hard law and soft law, public and private regulation, and technological advances can help ensure that AI serves the public interest

Thanks!



Artificial Intelligence and the Practice of Law

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Roberta Mata v. Avianca Inc

- Lawsuit against Avianca Airlines facing motion to dismiss on statute of limitations
- Attorney files opposition brief citing half dozen cases supporting tolling under similar circumstances
- The problem? The cases did not exist, they were made up by ChatGPT
- Judge imposed \$5,000 dollar sanctions for bad faith and "acts of conscious avoidance and false and misleading statements to the court."

AI Litigation Tools for Lawyers

- Public tools (ChatGPT, Google Bard)
 - Free, effective writing assistant, Bard internet search
 - Cons: Not trained for law; will “hallucinate;” confidentiality
- Off-the-shelf (CoCounsel, Lexis+AI, Westlaw Precision)
 - Trained on legal databases; confidential; task specific
 - Cons: Not trained on user information
- Boutique and in-house (Harvey AI)
 - Model trained on client data, customized for needs
 - Cons: Expense

Tasks: Legal Research

- Public tools will get general legal concepts right, but legal tools are needed for specific questions
- Both ChatGPT and CoCounsel identify the elements of a breach of contract claim
- More esoteric question: “In California, is a City required to verify its complaints?”
 - ChatGPT gets the answer wrong, says “Yes”
 - Legal tool says “No,” offers an explanation, and cites cases
- Always treat AI tools as a research starting point
- Can significantly speed up research

Tasks: Writing Assistant

- Generative AI is good at creating first drafts of common documents, such as letters, emails, resolutions, and ordinances.
- Asking ChatGPT to “draft a California ordinance authorizing and regulating ADUs” will produce a good skeleton to fill in
- Legal tools can also review contracts for policy compliance, and suggest revisions
- Tools coming to market that interface with Word, and can suggest language in document itself as you draft

Tasks: Document Review

- AI excellent for sifting large amounts of information
- Legal tools can summarize documents at varying levels of specificity
- Provide large databases and ask specific questions.
- We gave a legal tool the complete works of Shakespeare and asked it to “find all references to Falstaff”

Tasks: Document Review

- Answer:
 - There are numerous references to Falstaff in the results above. Falstaff appears as a character in three of Shakespeare's plays: "The Merry Wives of Windsor," "Henry IV, Part 1," and "Henry IV, Part 2." In "The Merry Wives of Windsor," Falstaff is a central character, appearing in multiple scenes and engaging in dialogue with various other characters. In "Henry IV, Part 1" and "Henry IV, Part 2," Falstaff also plays a significant role, appearing in multiple scenes and interacting with characters such as the Prince, Bardolph, and the Chief Justice.
- Close, but it missed Henry V. AI can be convincingly wrong.
- Unlike Boolean searches, AI prompts can be nuanced and complex, such as "What is each plays primary theme, and who are their protagonists and antagonists?"
- This capability is coming to document management software soon.

Tasks: Brainstorming

- Large Language Models are great at “brainstorming”
- ChatGPT can quickly plan an itinerary
- CoCounsel offers a deposition preparation feature:
 - “I am the City Attorney for the City of Pawnee. At the annual Harvest Festival, an event put on by the Pawnee Parks and Recreation Department, local librarian T. Swanson was bitten by a miniature horse named Li’l Sebastian.
 - T. Swanson has sued the City for negligence, premises liability, and intentional infliction of emotional distress. Please prepare deposition questions for T. Swanson related to her claims.”

Tasks: Brainstorming (con't)

- The extent of T. Swanson's injuries from the bite
 - What injuries did you sustain from the bite?
 - Did you seek medical attention for your injuries?
 - What treatments or medications were prescribed to you as a result of the bite?
 - Are you still experiencing any symptoms or pain from the bite?
 - Has the bite impacted your ability to work or perform daily activities?
- Any prior interactions T. Swanson had with Li'l Sebastian
 - Had you ever interacted with Li'l Sebastian before the Harvest Festival?
 - If so, how many times?
 - What was the nature of those interactions?
 - Did you ever experience any aggressive behavior from Li'l Sebastian in the past?
 - Did you ever witness anyone else experience aggressive behavior from Li'l Sebastian?

Professional Conduct and AI

- AI is not the first disruptive technology to enter the legal field.
- California State Bar's Standing Committee on Professional Responsibility and Conduct: "An attorney's obligations under the ethical duty of competence evolve as new technologies develop and become integrated with the practice of law."
- Issues:
 - Competency and Diligence
 - Transparency and Candor
 - Confidentiality

Competency and Diligence

- CRPC Rule 1.1: “Duty to keep abreast of the changes in the law and its practice, including the benefits and risks associated with relevant technology.”
- Cal. Bar: “Maintaining learning and skill consistent with an attorney's duty of competence includes keeping ‘abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology.”
- CRPC Rule 1.3 “A lawyer shall not intentionally, repeatedly, recklessly or with gross negligence fail to act with reasonable diligence in representing a client.”
- Treat AI like a new attorney: Use where the cost savings make sense, know you must double check all of its work

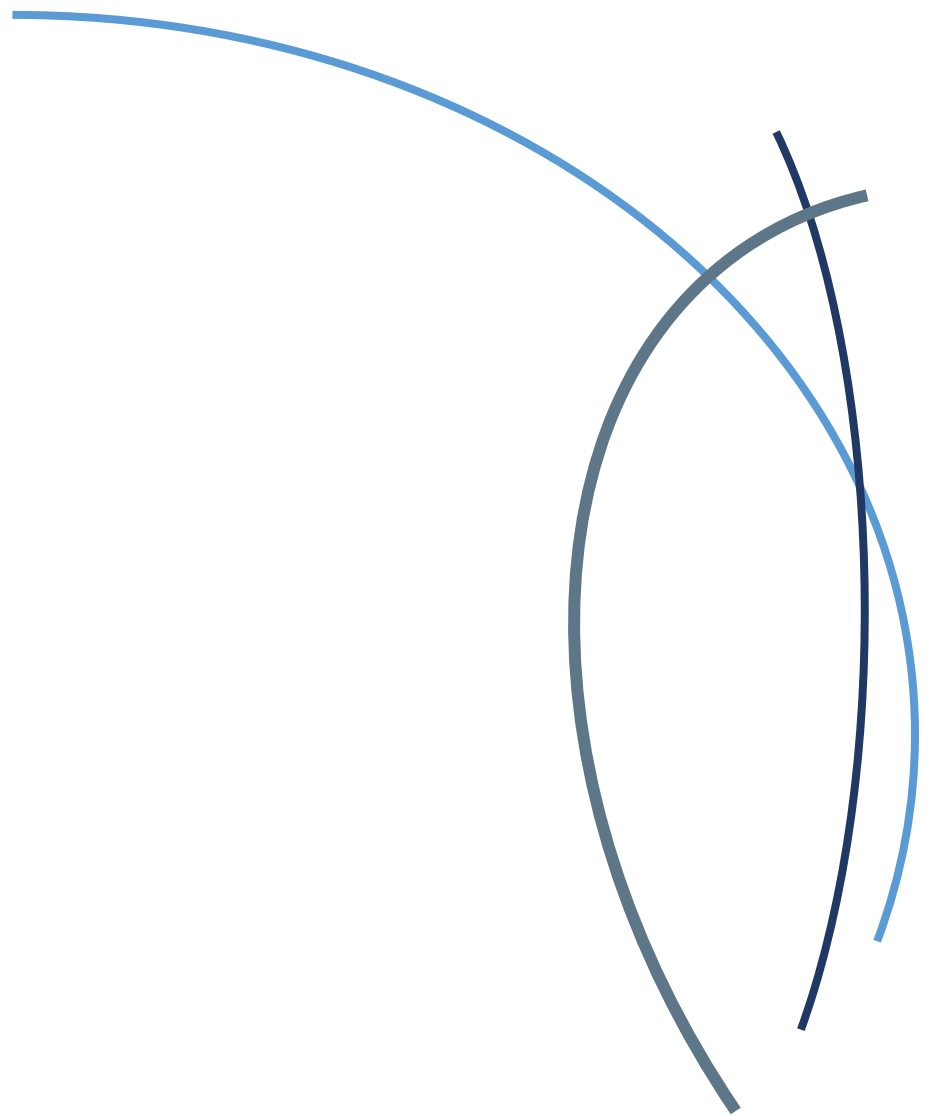
b. Transparency and Candor

- Need for Disclosures?
 - CRPC Rule 1.4: “a lawyer shall.... reasonably consult with the client about the means by which to accomplish the client’s objectives in the representation.”
- Duty of Candor
 - CRPC Rule 3.3: Need to inform Court of AI use?
 - Northern District of Texas: Standing order requiring attorneys certify generative AI drafted no portion of filing, or that human checked accuracy of any language.
 - CRPC Rule 3.1: Attorneys may neither “assert a position in litigation... without probable cause” nor “present a claim or defense in litigation that is not warranted under existing law....”
 - CRPC Rule 8.4: Uncritically filing AI product can be considered “dishonesty, fraud, deceit, or reckless or intentional misrepresentation. . . .” amounting to profession misconduct.

Confidentiality

- CRPC Rule 1.6: “A lawyer shall not reveal information protected from disclosure”
- Entering confidential information into ChatGPT likely breaks confidentiality
- Prompts are used to train model, malicious actors can search for information
- Legal industry products sequester information
- Related: Information entered in public chat bot likely a public record

Questions?



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