







# The Questions We Will Explore in Today's CLE

Baseline definitions

What are the viable use cases for AI in Legal?

What are some meaningful ways we can use Gen Al in disputes and investigations?
(Hands-On Exercises)

How can we validate the efficacy of GenAI?

Gen AI as a relevant data source

How does Gen Al align with ethical obligations (key principles and model rules of conduct)?

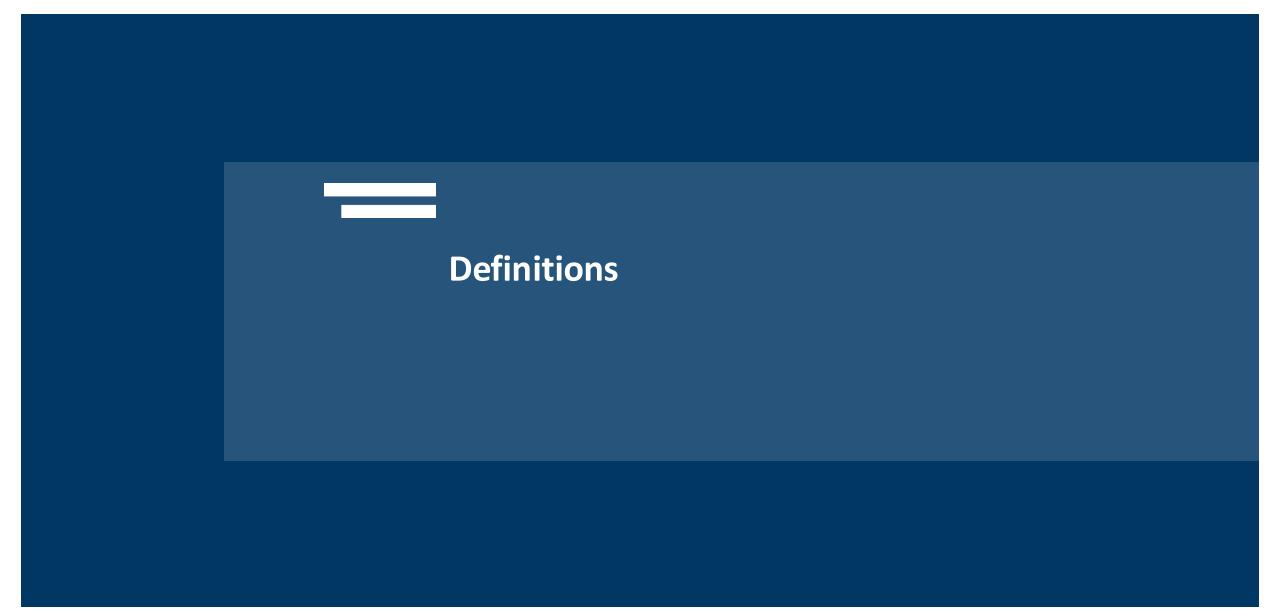
Key take aways

More CLE content about AI available another time Legislation **Principles of Data Protection & Al** Governance



# Are we approaching a GenAl-enabled Utopia?

- Commercially available AI-enabled discovery solutions have been increasingly available over the course of 30 years.
- Imagine a world where every reviewer considered every word of every instruction relative to the full content within the "four corners" of every document.
- But what do you do when the instructions are ambiguous or misunderstood ... [in]consistently?
- What is the harm or benefit of an additional layer of synthetic document classification, based on a reasonable process?
- Is the net cost-benefit favorable?







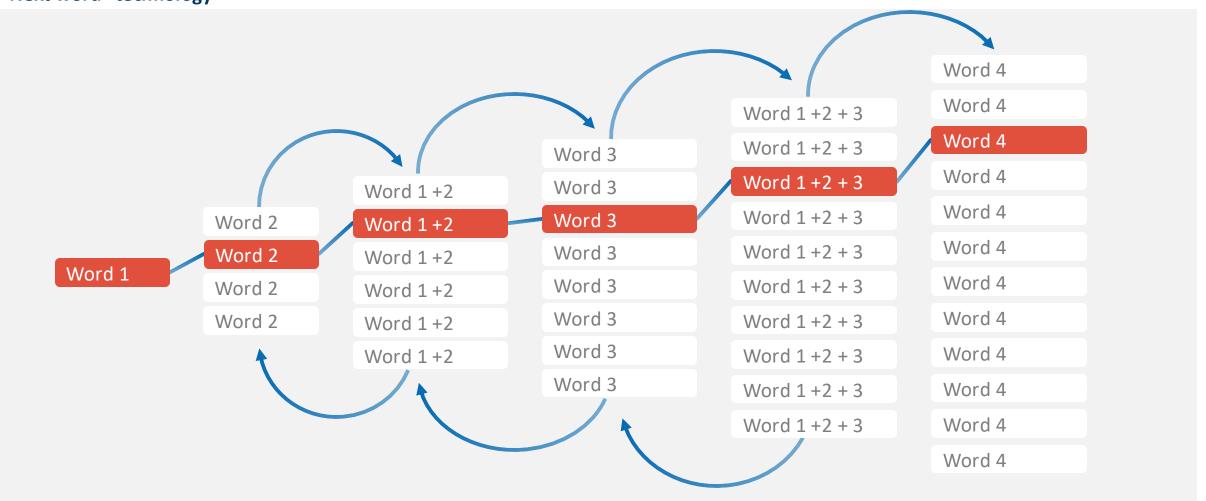
# Al vs Generative Al – What's the Difference?

Category	Al	Generative AI	
Functionality	Statistical categorization and sorting of data.	Content creation that tends to appear more language oriented.	
Foundation	Simulating human-like intelligence in machines, including rule-based systems and statistical models.	Specialized subset of AI that deals with generating content, often with a creative or human-like touch.	
Typical Uses	Data analysis, decision-making, automation, and pattern recognition.	Content generation, natural language processing, and image synthesis.	
Techniques	Machine learning, deep learning, and reinforcement learning.	Relies heavily on generative models and neural networks to produce new data based on existing patterns.	
Learning	The system is trained on labeled data or learns patterns autonomously.	Generates content without explicit labeling, often from a dataset without specific output examples.	
Output	Human-like decision-making but generally not creative or artistic output.	Content that can resemble human creativity, enabling it to create computer code, art, stories or music.	
Examples	Recommendation systems and predictive analytics.	Text generation, image generation, deepfake creation.	



# A Simple, Operating Definition for Generative Al

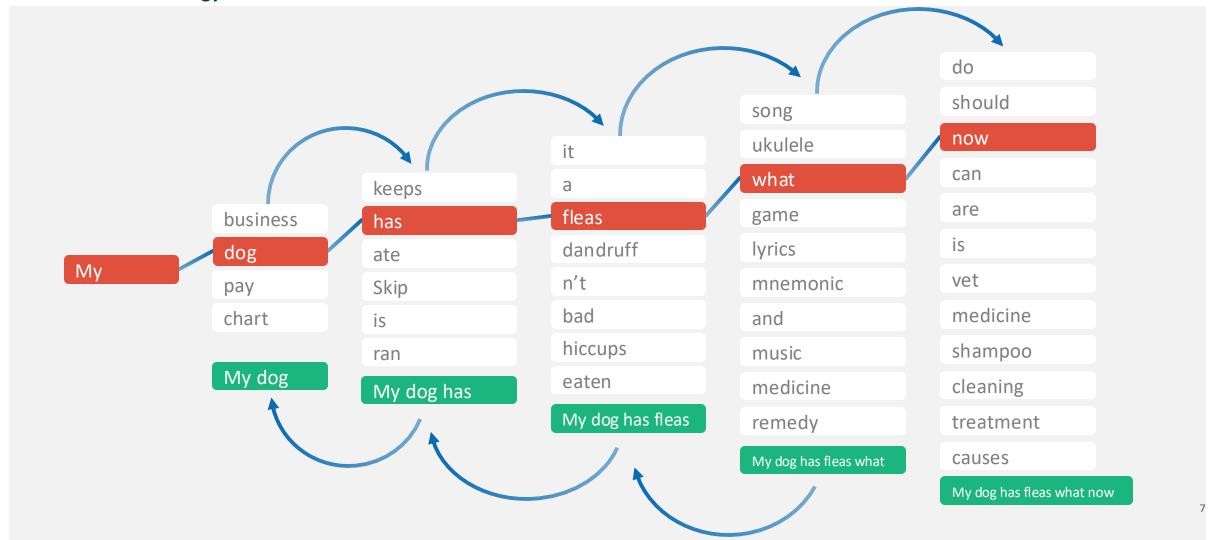
#### "Next word" technology





# A Simple, Operating Definition for Generative Al

#### "Next word" technology





# Large Language Models – a brief glossary

Model – In AI, a model is trained on labelled data which can then be used to generate predictions on information the model has not previously seen. There are different applications of models including supervised learning models where models are trained on human classified data to make predictions, and unsupervised learning models where the models find patterns in unlabelled data

Large Language Models – general purpose models designed to understand and generate human language across a range of contexts. They have been trained on extremely large (much larger than previous models) data sets (typically those found online such as news sources, Wikipedia and online forums such as Reddit)

**GPT** – a series of LLMs developed by OpenAI (also available in Microsoft Azure) designed for various natural language processing tasks

**Prompt** – the input a user sends to an LLM

**Context window** – the 'conversation history' with the LLM which is limited in size, typically measured in token length

**Tokens** – individual words (or stemmed parts of words) as indexed and generated by the LLM

**Hallucinations** – where a model generates information that is fabricated, or untrue

**Foundational model** – the 'vanilla' LLMs – general purpose models which are versatile, and capable of understanding and generating human language across various contexts

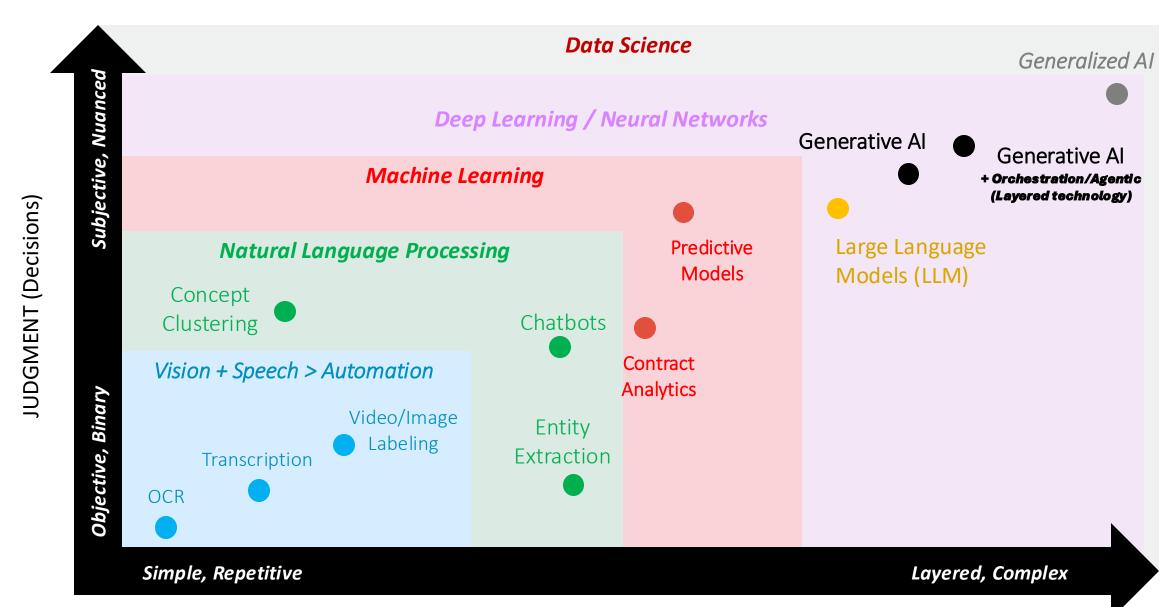
**Fine tuning** – taking a foundational model, and adapting it to more specialized tasks to improve performance and possibly saving on computational resources





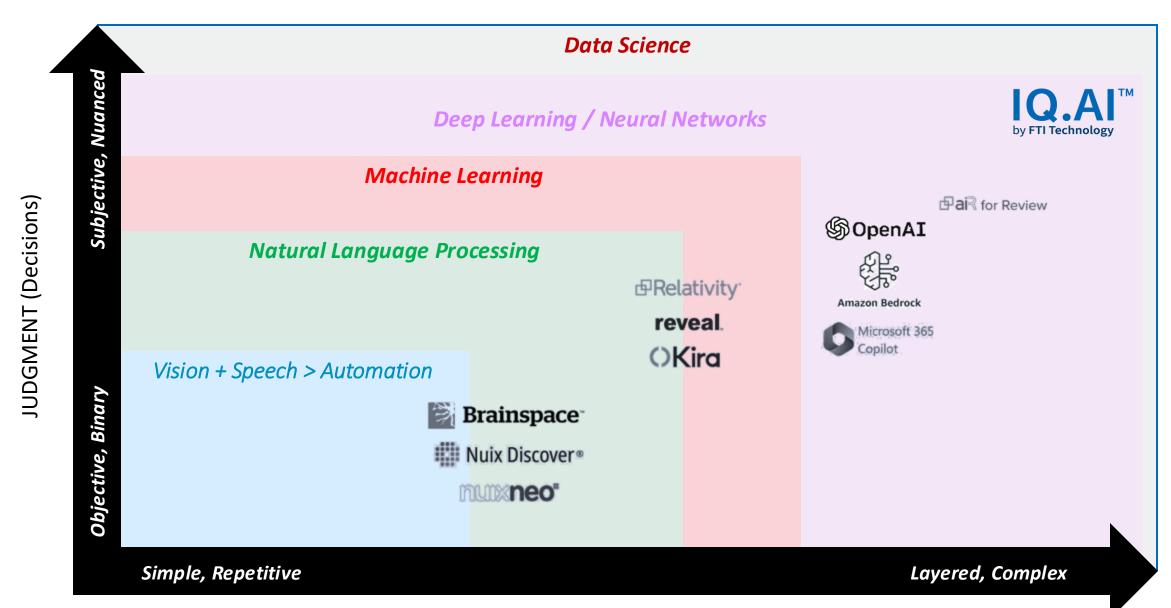
# Range and Evolution of Al





# Range and Evolution of AI (Work in progress, deriving from 11 to 13)







#### Mata v. Avianca, Inc., 22-cv-1461 (PKC) (S.D.N.Y. Jun. 22, 2023):

- Plaintiff's attorney sanctioned for reference to ficticious cases.
- Personal injury case
- One lawyer conducted writing and research, while another signed filings
- Lawyer prompted ChatGPT to "provide case law in support that statute of limitations is tolled by bankruptcy of defendant under Montreal convention," "show me specific holdings in federal cases where the statute of limitations was tolled due to bankruptcy of the airline," "show me more cases" and "give me some cases where the [sic] Montreal convention allowed tolling of the statute of limitations due to bankruptcy."

#### Wadsworth v. Walmart, 2:24-cv-118-KHR (D. Wyo., Feb. 24, 2025)

- Motion in Limine cited 9 fake cases and was signed by lead counsel with no review
- Three attorneys for Plaintiffs collectively sanctioned \$5,000
  - One of the lawyers, the primary writer, had pro hac vice status revoked and suffered \$3K in sanctions

#### This has come up in at least 7 other cases around the country including:

- Texas Court of Appeals in Waco: Dismissed pro se litigant's habeas corpus petition citing false cases (Exparte Lee, 673 S.W.3d 755, 756 (Tex. App.—Waco Jul. 19, 2023)).
- U.S. Court of Appeals in the 5th Circuit delayed decision over "nonexistent" cases (Esquivel v. Kendrick, No. 22-50979, 2023 WL 5584168, \*3 (5th Cir. Aug. 29, 2023)).
- Opposition to motion to dismiss failed in U.S. District Court for the District of New Hampshire, citing nonexistent cases (Taranov v. Area Agency of Greater Nashua, No. 2023 D.N.H. 129, 2023 WL 6809637, \*10 n.9 (D.N.H. Oct. 16, 2023)).
- Plaintiff's motions to compel discovery denied (An v. Archblock, 2025 WL 1024661 (Del. Ch. 2025), <u>April 4, 2025</u>) and (Sheets v. Presseller, 2025 WL 770592 (M.D. Fla. 2025), <u>March 11, 2025</u>)



I want to talk about Varghese v. China Southern Airlines Co. Ltd., 925 F.3d 1339 (11th Cir. 2019)

Certainly! Varghese v. China Southern Airlines Co, Ltd. is a legal case that was heard in the United States Court of Appeals for the Eleventh Circuit in 2019. Let's discuss the details of the case.

#### A(I)CCESS TO JUSTICE: HOW AI AND ETHICS OPINIONS APPROVING LIMITED SCOPE REPRESENTATION SUPPORT LEGAL MARKET CONSOLIDATION

#### Hon, C. Scott Maravilla

#### ABSTRACT

Artificial Intelligence (AI) is changing our society and bringing the legal profession with it. The use of Generative AI (GenAI) in legal proceedings has received negative publicity from high profile mishaps in court filings. In one case, attorneys used the publicly available online GenAI tool, ChatGPT, to write a legal brief in which ChatGPT proceeded to make up its own citations. Following this, among other instances of the misuse of GenAI, courts have begun to require disclosures and limit the use of GenAI technology.

These prohibitions, however, are the result of a fundamental misunderstanding of the appropriate use of GenAI technology. ChatGPT's algorithm is not designed for use in legal research and writing. Westlaw Precision and Lexis+ AI, however, are examples of AI tools that are designed for legal research, including citations to actual cases. These tools provide a means of quickening legal research and writing that will lead to reduced costs.

rghese, who was traveling from y China Southern Airlines. mpted to use the lavatory and

I district court in Florida, owever, China Southern trine of forum non conveniens, opropriate for hearing the

southern Airlines and appropriate forum for the art of Appeals.

red various factors relevant to enience of the parties, the judgment, and the public

al of the case. The court appropriate forum for the etween two foreign countries, in the United Arab Emirates. Interest in regulating the

n the Florida forum initially. ctrine of forum non

s significant because it international aviation cases. s more appropriate, lic interest.

of a case to determine the hts. It also highlights the he safety and operations of



957

<sup>\*</sup> Judge Scott Maravilla is an Administrative Law Judge with the Office of Financial Institution Adjudication (OFIA), an Adjunct Professor of Constitutional Law at William & Mary (W&M) School of Law and has taught at American University (AU) Washington College of Law and the National Judicial College. He is also a member of the American Law Institute. The opinions in the Article are solely those of the author and do not represent OFIA, W&M, or any other organization.

# **Hands-On Exercises**





## Corporate Guardianship: Policy Compliance Review

#### How can GenAI help us evaluate compliance with company policies?



#### **OPPORTUNITIES**

Aligning GenAI with compliance investigations or monitoring

- Evaluate potentially ambiguous language in communications
- Ground evaluations with official policies



#### **CAUTIONS**

- Grounding in good, up to date policies
- Incorporating lessons learned into prompt refinement
- Testing models over time

#### **EXERCISE 1**

#### **Compliance Review**

- Models: GPT-4o vs. GPT 3.5 Turbo
- **Document ID:** Comp 001
- Prompt: You are a compliance officer who is an expert at performing compliance reviews. Based on the following policy, please confirm if the document is in violation of the policy.

- <u>Trillions vs. Billions of parameters in</u> <u>different LLMs</u>
- Appearance of reasoning and understanding



# Safeguarding Personally Identifiable Information and Complying with Privacy Regulations

#### Will GenAI help with identifying personal information?



#### **OPPORTUNITIES**

- Pre-screening for private information to safeguard the organization
- Reporting on private information in the wake of a cybersecurity incident
- Protecting organizational reputation
- Complying with regulators



#### **CAUTIONS**

- Information security
- Quality assurance (sufficient completion)

#### **EXERCISE 2**

#### PII

- Model comparisons: GPT-40 vs. Claude 2 Turbo
- Document ID: # PII 0001
- Prompt: Extract entities from the document including emails, driving license details etc. and associate them back to who they belong to. Return the results as an html table with one row for each natural person and separate columns for each type of PII.

- Model sufficiency
- Extrapolating definitions, like "PII"



# **Protecting Privilege Information**

#### Can GenAI help identify potentially privileged documents?



#### **OPPORTUNITIES**

- Help with screening for potentially privileged content
- Protect client confidentiality
- Quality assurance



#### **CAUTIONS**

- Privilege particularly in the thorough sense - is one of the hardest problems, technically and substantively
- Non-deterministic nature of Generative AI may not yield highly consistent logs

#### **EXERCISE 3**

#### Privilege

- Model comparisons: GPT-40 vs. GPT-3.5 Turbo
- **Document ID:** Priv\_0001
- <u>Prompt:</u> Would you consider the following document likely privileged or likely not privileged. Please respond with the following headers:
  - Privileged likely privileged/not likely privileged
  - Privilege type- If likely privileged what type of privilege you believe this document falls under
  - Reasoning the reasoning behind the decision

- **■** Prompt engineering
- Grounding with specific instructions in a real scenario
- Reasoning is only emulated (remember, "next word" technology)



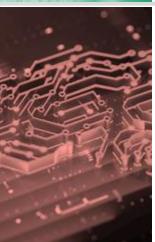
## Conducting Timely Case Assessment

#### How can GenAl make case work more efficient and focused?



#### **OPPORTUNITIES**

 Summarize documents or sets of information for more timely case work



#### **CAUTIONS**

- Prompts may (or may not) yield what you ask for
- Like any fact investigation, queries must be sufficient

#### **EXERCISE 4**

#### MODELS

- <u>Model comparisons</u>: Claude 3 Sonnet vs. GPT-40
- **Document ID:** Models\_001
- Prompt: Extract three key facts from this document

#### **EXERCISE 4.1**

#### **MODELS**

- <u>Model comparisons</u>: Claude 3 Sonnet vs. GPT-40
- **Document ID:** Models\_001
- Prompt: Extract the key facts from this document. List each fact on separate line. Number each fact.

- GenAl is non-deterministic. Verbatim, duplicative responses are unlikely using an open model.
- Should you define "**Key**?"
- LLMs try to satisfy the requestor "3 facts"



# Conducting Investigations or Identifying Issues

#### How can GenAl help identify specific issues and find relevant documents?



#### **OPPORTUNITIES**

- Align claims and queries with potentially relevant documentary evidence
- Enhance your ability to be a superior fact-finder

#### **EXERCISE 5:**

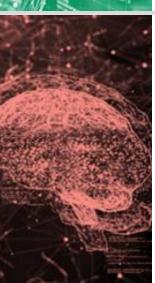
#### **Prompting**

- Model comparisons: GPT-3.5 Turbo
- Document ID: Prompt\_0001
- Prompt: Can you provide reasons for the delay in the email?

#### **EXERCISE 5.1:**

#### **Prompting**

- Model comparisons: GPT-3.5 Turbo
- **Document ID:** Prompt 0001
- Prompt: Based on this email can you provide further information of the delays? The answer should be based on only this document.



#### **CAUTIONS**

- Hallucinations vs. ambiguous prompts
- Supervision
- Quality Assurance
- Expertise (in the technology and the issues)

#### **EXERCISE 5.2:**

#### **Prompting**

- Model comparisons: GPT-3.5 Turbo vs. GPT-40
- **Document ID:** Prompt\_0001
- <u>Prompt:</u> Is this document relevant to a request for production in a civil lawsuit regarding delays in construction of a mass transit system in the state of Illinois? Answer Yes or No. Rank the confidence of the answer on a scale of 1 to 5, where 5 is most confident and 1 is least confident in the answer.

- Using multiple models to validate results,
- <u>Be careful about over-</u> <u>fitting</u>
- **Agentic** use-cases



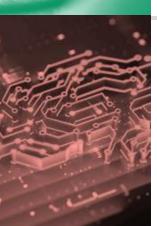
# Fair, Candid and Understandable Representation: Analyzing Jury Instructions

#### What are some ways that GenAI can help us prepare for trial?



#### **OPPORTUNITIES**

- Enhance client representation
- Gain extra insights about language choice



#### **CAUTIONS**

- LLMs aim to please and give an answer
- LLMs do not have instincts
- Practical limits and variations could limit the feedback

#### **EXERCISE 8.1**

#### **Jury Instruction Disambiguation**

- Model comparisons: GPT-4o vs. GPT-3.5 Turbo
- **Document ID:** Jury 0001
- <u>Prompt:</u> This document contains jury instructions regarding a civil lawsuit. What language needs to be clarified for a standard panel of jurors? Explain why the language needs to be changed. List the instruction number, instruction name, page number, original language, each recommendation and the explanation why on separate lines.

#### **EXERCISE 8.2**

#### **Defensibility of Jury Instructions**

- Model comparisons: GPT-40 vs. Claude 3 Sonnet
- Document ID: Jury\_0001
- Prompt: Considering Federal Rule of Civil Procedure Rule number 51, Instructions to the Jury, what portions of these jury instructions might be objectionable by the defendant?

#### **EXERCISE 8.3:**

#### For Fun

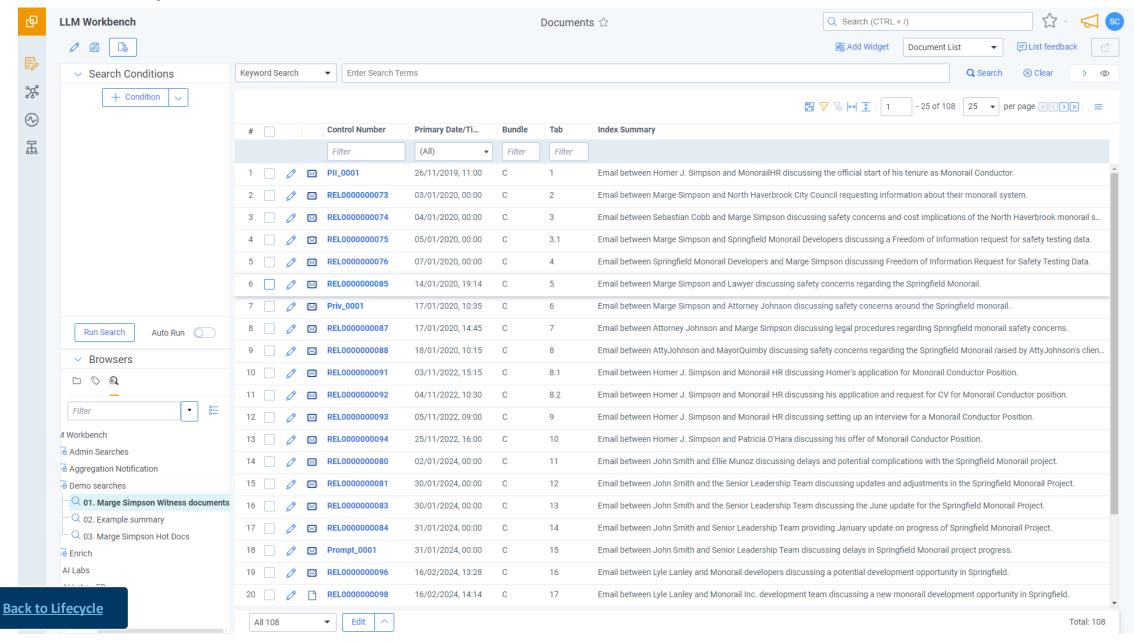
- Model comparisons: Claude Sonnet
- **Document ID:** Jury\_0001
- Prompt: Explain the reasons for this trial in the voice of [ \_\_\_\_\_

# Some noteworthy considerations:

Brevity, vs. time and cost

# Summarize Key Documents to Review with Stakeholders and Witnesses







√ Find ▼

🔆 Replace

→ Select ~

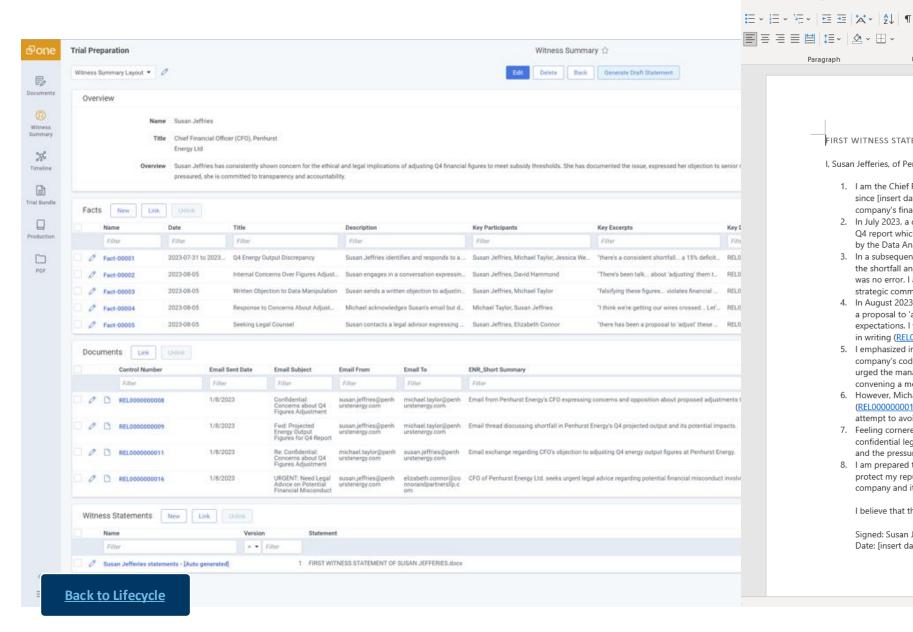
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## Build Chronological Timelines to Piece Together the Facts





Paragraph

I, Susan Jefferies, of Penhurst Energy Ltd., will say as follows:

1. I am the Chief Financial Officer (CFO) of Penhurst Energy Ltd. and have held this position since (insert date). I am responsible for the financial reporting and integrity of the company's financial figures.

AaBbCcDt AaBbCcDt AaBbCcDt AaBbCcDt

Emphasis

Styles

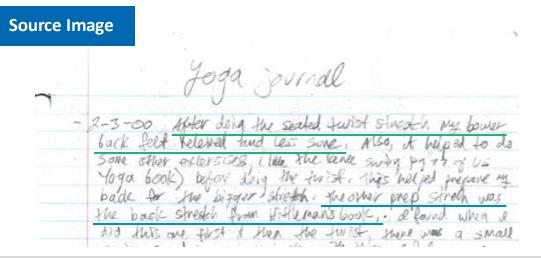
- 2. In July 2023, a discrepancy was detected in the projected energy output figures for the Q4 report which showed a 15% deficit (REL0000000009). This discrepancy was confirmed by the Data Analyst, Jessica Wells, and the Head of Engineering, Michael Taylor.
- 3. In a subsequent email conversation (REL0000000009), I expressed serious concerns about the shortfall and suggested that the financial analysts re-run the numbers to ensure there was no error. I also proposed a meeting to discuss the potential implications and strategic communications.
- 4. In August 2023, following further discussions with senior management, I became aware of a proposal to 'adjust' the Q4 output figures to mask the deficit and meet investor expectations. I was deeply uncomfortable with this proposal and expressed my concerns in writing (REL0000000008 & REL0000000011).
- 5. I emphasized in my communication that adjusting the figures would not only violate our company's code of ethics but also potentially breach financial and regulatory standards. urged the management team to reconsider this course of action and suggested convening a meeting with the legal department to discuss alternative strategies.
- 6. However, Michael Taylor, the Head of Engineering, suggested in his response (REL000000011) that we deal with this matter informally, which I interpreted as an attempt to avoid leaving a written record of these discussions.
- 7. Feeling cornered and concerned about the potential legal consequences, I sought confidential legal counsel (REL0000000016). I also started documenting my objections and the pressure I was under to comply (REL0000000015).
- 8. I am prepared to take all necessary steps to uphold my professional responsibilities and protect my reputation, and I have acted throughout with the best interests of the company and its stakeholders in mind.

I believe that the facts stated in this witness statement are true.

Signed: Susan Jefferies Date: [insert date]



#### **OCR Enhancement**



#### **LLM OCR cleanup over AI OCR**

2-3-00: After doing the seated twist stretch, my lower back felt relieved and less sore. Also, it helped to do some other exercises (like the table, the knee swing on page 17 of the US Yoga book) before doing the twist. This helped prepare my body for the bigger stretch. The other prep stretch was the back stretch from Hittleman's book. I found when I did this first and then the twist, there was a small thorough stretch and a relief in my back.

When I do the opposite, there's a popping sound in my lower back. With these exercises, I feel a more complete breath sitting in half lotus. It calms me down fairly quickly. When I started practicing Ashtanga yoga around Summer 1996, my back felt a little less sore. My mom and my friend also observed that I lost a little weight or "plump" as my mom put it.

#### **OCR Text**

#### **AI OCR Text**

yoga journal

- 2-3-00 After doing the seated twist stueatch My
bower back felt Releved and less some Also, it helped to do
Save other extersies (table the kence swing pg
17 of US Yoga book) before doing the twist, This helped
preface my

bade for the bigger stretc. the other prep

streth was
found when l

did this are first & then the twist there was
a small
throughout Stretch and a revif in my back when
a do the opping sound in my will back. with these, d feel a



# Gleaning the Benefits without Getting Tripped Up

# Model Rules to be particularly attentive to:

- Rule 1.1: Competence
- Rule 2.1: Advisor
- Rule 1.3: Diligence
- Rule 1.4: Communication
- Rule 1.6: Confidentiality of Information
- Rule 1.9: Duties to Former Clients
- Rule 3.1: Meritorious Claims and Contentions
- Rule 3.2: Expediting Litigation
- Rule 3.3: Candor Toward the Tribunal
- Rule 3.4: Fairness to Opposing Party and Counsel
- Rule 4.1: Truthfulness in Statements to Others"
- Rule 5.1: Responsibilities of Partners, Managers, and Supervisory Lawyers
- Rule 5.3: Responsibilities Regarding Non-Lawyer Assistance
- Rule 5.5: Unauthorized Practice of Law
- Rule 8.4: Misconduct

#### **Potential Benefits**

- Enhanced, dynamic, interactive, accelerated insights and knowledge about cases, facts and patterns
- Alignment of evidentiary documents, policies, laws, precedents, ideas, theories, claims and defenses
- Accelerated, detailed insights and enhanced accuracy
- Analysis of Improved transparency
- inconsistencies
- Aiding in identification of confidential, sensitive and private information
- Fine-tuned models can enhance data classification for a variety of use cases and enable expanded, detailed classification in future matters
- Organize information into relevant topics and timelines in a meaningful context.
- Assisting in the accurate identification and classification of relevant documents
- Reduce the risk of inadvertently withholding relevant information that could unfairly disadvantage the opposing party.
- Supervisory lawyers can be assisted by AI with highvolume document review and quality control

#### **Potential Hazards**

- Incomplete, incorrect, ambiguous, misinterpreted or false input or output
- Communication about value, use, risks and benefits
- Compliance with privacy and security policies
- Proper use, authorization and, when appropriate, anonymization of data
- Insufficient oversight of the technology and its operators
- Use of AI for unethical or illegal purposes such as generating false evidence or information

#### **Mitigating Measures**

- Continuous, human oversight to maintain reliability, validate output and rationalize results
- Case and issue-specific prompt design, validation and iteration, preceding full-scale implementation, followed by appropriate quality control
- Documented recommendations, protocols and results
- Time-cost-quality analyses
- Complementary AI-enabled and standard methodologies to validate and triangulate results
- Ensuring Al-generated results are supported by factual documentation



# Areas of Emphasis in the ABA's July 2024 Opinion, Similar to Concise CA State Bar Guidance

#### AMERICAN BAR ASSOCIATION

STANDING COMMITTEE ON ETHICS AND PROFESSIONAL RESPONSIBILITY

Formal Opinion 512

July 29, 2024

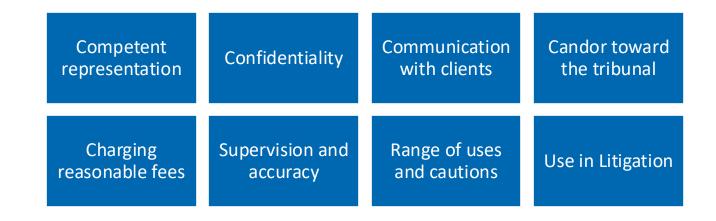
#### Generative Artificial Intelligence Tools

To ensure clients are protected, lawyers using generative artificial intelligence tools must fully consider their applicable ethical obligations, including their duties to provide competent legal representation, to protect client information, to communicate with clients, to supervise their employees and agents, to advance only meritorious claims and contentions, to ensure candor toward the tribunal, and to charge reasonable fees.

#### I. Introduction

Many lawyers use artificial intelligence (AI) based technologies in their practices to improve the efficiency and quality of legal services to clients. A well-known use is electronic discovery in litigation, in which lawyers use technology-assisted review to categorize vast quantities of documents as responsive or non-responsive and to segregate privileged documents. Another common use is contract analytics, which lawyers use to conduct due diligence in connection with mergers and acquisitions and large corporate transactions. In the realm of analytics, AI also can help lawyers predict how judges might rule on a legal question based on data about the judge's rulings; discover the summary judgment grant rate for every federal district judge; or evaluate how parties and lawyers may behave in current litigation based on their past conduct in similar litigation. And for basic legal research, AI may enhance lawyers' search results.

This opinion discusses a subset of AI technology that has more recently drawn the attention of the legal profession and the world at large – generative AI (GAI), which can create various types of new content, including text, images, audio, video, and software code in response to a user's prompts and questions. Fall tools that produce new text are prediction tools that generate a statistically probable output when prompted. To accomplish this, these tools analyze large amounts of digital text culled from the internet or proprietary data sources. Some GAI tools are described as "self-learning," meaning they will learn from themselves as they cull more data. GAI tools may assist lawyers in tasks such as legal research, contract review, due diligence, document review, regulatory compliance, and drafting letters, contracts, briefs, and other legal documents.



THE STATE BAR OF CALIFORNIA
STANDING COMMITTEE ON
PROFESSIONAL RESPONSIBILITY AND CONDUCT

PRACTICAL GUIDANCE FOR THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE IN THE PRACTICE OF LAW

EXECUTIVE SUMMARY

 $https://www.americanbar.org/content/dam/aba/administrative/professional\_responsibility/ethics-opinions/aba-formal-opinion-512.pdf$ 

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extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.calbar.ca.gov/Portals/0/documents/ethics/Generative-Al-Practical-Guidance.pdf

<sup>&</sup>lt;sup>1</sup> There is no single definition of artificial intelligence. At its essence, AI involves computer technology, software, and systems that perform tasks traditionally requiring human intelligence. The ability of a computer or computer-controlled robot to perform tasks commonly associated with intelligent beings is one definition. The term is frequently applied to the project of developing systems that appear to employ or replicate intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. BRITTANICA, https://www.britannica.com/technology/artificial-intelligence (last visited July 12, 2024).
<sup>2</sup> George Lawton, What is Generative AI? Everything You Need to Know, TECHTARGET (July 12, 2024), https://www.techtarget.com/searchenterprisea/definition/generative-AI.





Generative AI complements human judgment; we position our clients to recognize the value that can result from that strategic partnership.

**Accuracy** and **integrity** are paramount; we will remain **cautious** and **methodical**.

# **Driving Principles**

Generative Al continues to **evolve**; we will be **thoughtful** and **flexible**.

transforming our industry; we remain at the forefront while being practical and experimental.

Our clients are ready; we **empower** them to responsibly use generative Al to achieve successful outcomes.



# Critical Considerations to Evaluate Large Language Models and Use Cases

# Accuracy

Are the produced results expected, verifiable and defensible?

# Cost

Do the time, cost and expense justify using the technology?

# Risk

Do you understand the associated risks of using the technology?

# Scale

Will the technology keep up with the data volumes for the matter?

# Speed

Will the technology provide faster access to insights?



# Five Step Approach to Testing and Implementing GenAl

# **Step One:** Targeted Sampling

False
Positive and
Negative
Examples

Positive
Examples

Examples

- Identify a small (5 50) sample of documents containing a spread of content we want to identify, false positives and borderline documents
- Clients can identify, or FTI's Analytics Researchers and Document Review team using a range of techniques can identify the sample documents

# **Step Two:** Initial Prompt Testing

On the targeted sample, test the prompt to ensure the correct results are obtained. This presents our initial opportunity to test and refine our prompt using a small sample of documents.

#### Features: LLM Workbench

- Fully integrated with Relativity
- Ability to connect to different models
- Automatic audit trail of prompting progression and documents tested

#### Services

**Data Science Consulting** 

**Analytics Research** 

# **Step Three:** Targeted Sampling

Run prompt over statistically valid sample

#### **What it Answers**

How do I know that the prompt I've designed is bringing back what I need?

#### How We Do It

- Statistical sample generation to
- FTI's Enrich Framework run your prompts over any model at scale over the statistical sample

#### **Services**

FTI's eDiscovery Consulting team run the prompt and handle exceptions

# **Step Four:** Validation

The validation approach will depend on the Generative AI task

#### **Validation Steps**

Classification (review)

Summarisation

Low risk tasks e.g. OCR cleanup

Translation

# **Step Five:** Apply prompt across

Using FTI Enrich, we can apply the final, validated prompt over the universe of documents.

## Measuring Summarisation: Reference-Free Approach, Using LLMs to Measure Results 🔚 📻 🚉



#### CONSISTENCY

Is the response grounded in the facts of the source document?

#### **COHERENCE**

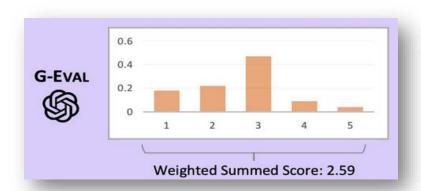
Is the response well-structured and wellorganized?

#### **FLUENCY**

Is the response easy to read and grammatically correct?

#### RELEVANCE

Does the response contain the key facts and ignore extraneous information?



#### News Summarization and Evaluation in the Era of GPT-3

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#### Abstract

The recent success of prompting large language models like GPT-3 has led to a paradigm shift in NLP research. In this paper, we study its impact on text summarization, focusing on the classic benchmark domain of news summarization. First, we investigate how GPT-3 compares against fine-tuned models trained on large summarization datasets. We show that not only do humans overwhelmingly prefer GPT-3 summaries, prompted using only a task description, but these also do not suffer from common dataset-specific issues such as poor factuality. Next, we study what this means for evaluation, particularly the role of gold standard test sets. Our experiments show that both referencebased and reference-free automatic metrics cannot reliably evaluate GPT-3 summaries. Finally, we evaluate models on a setting beyond

CNN article: https://www.cnn.com/2022/09/09/politics/judge-throwsout-trumps-rico-lawsuit-against-hillary-clinton-and-democrats/index.htm Length-constrained prompt

#### Summarize the above article in 2 sentences. GPT-3: Donald Trump's lawsuit against Hillary Clinton, the Democratic National Committee, and several other individuals and entities has been

dismissed by a federal judge. The judge ruled that Trump's claims are unsupported by any legal authority and that many of his specific factual

#### Summarize the above article briefly focusing on Alina Habba.

GPT-3: Alina Habba is an attorney for Donald Trump. She stated that Trump will "immediately move to appeal this decision." Habba also said that the judge's opinion is "rife with erroneous applications of the law" and that it "disregards the numerous independent governmental investigations which substantiate our claim that the defendants conspired to falsely implicate our client and undermine the 2016 Presidential election.

Figure 1: Examples of GPT-3 summaries. We can generate summaries following style constraints or queries included in the prompts, allowing us to emulate a range of existing fine-tuned systems.

"worst summary"

#### **Benchmarking Large Language Models for News Summarization**

Tianyi Zhang<sup>1\*</sup>, Faisal Ladhak<sup>2\*</sup>, Esin Durmus<sup>1</sup>, Percy Liang<sup>1</sup>, Kathleen McKeown<sup>2</sup>, Tatsunori B. Hashimoto<sup>1</sup>

<sup>1</sup>Stanford University, USA <sup>2</sup>Columbia University, USA

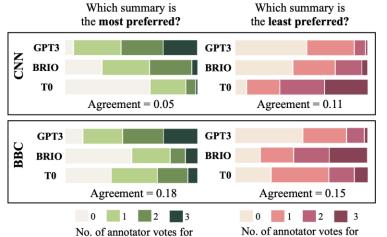
#### Abstract

Large language models (LLMs) have shown promise for automatic summarization but the reasons behind their successes are poorly understood. By conducting a human evaluation on ten LLMs across different pretraining methods, prompts, and model scales, we make two important observations. First, we find instruction tuning, not model size, is the key to the LLM's zero-shot summarization capability. Second, existing studies have been limited by low-quality references, leading to underestimates of human performance and lower few-shot and finetuning performance. To better evaluate LLMs, we perform human evaluation over high-quality summaries we collect from freelance writers. Despite major stylistic differences such as the amount of paraphrasing, we find that LLM summaries are judged to be on par with human written summaries.

evaluation identifies instruction tuning to be the key to zero-shot summarization capability. In contrast, self-supervised learning alone cannot induce strong summarization performance in the zero-shot setting (Figure 1). In fact, even a 350M parameter instruction-tuned GPT-3 can perform on par with the 175B parameter GPT-3.

To benchmark LLMs, we evaluated the standard CNN/DM (Hermann et al., 2015) and XSUM datasets (Narayan et al., 2018) but found that existing reference summaries caused several issues. The reference summaries in these benchmarks were originally created in a different use context and, when evaluated as part of a generic news summarization benchmark, human annotators judge them to be worse than the outputs of most automatic systems (Figure 1). When computing automatic metrics using these references, their poor quality reduces the correlation between metric results and human judgment. Not only does

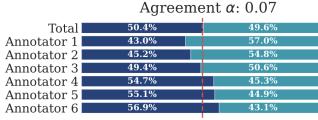
#### **Individuals prefer LLM generated summaries**



"best summary"

#### When human summaries were compared to LLM based summaries, it was a draw

Overall Preference



Freelance writers summaries are better

Instruct Davinci summaries are better



#### How do we measure our summaries?

#### **Springfield Monorail Project Funding Proposal** lyle.lanley@monorail.inc residents@springfield.com PROMPT: Dear Spri of, and solution to, all Hope this of life's pr You are a lawyer reviewing I'm writing ingfield charm. You've ss ne tuture of our town, a ruture that seamlessly blends progress with our ul documents staff one that I lega Liter case, i all heard munity. {case background} and efficient, requires a significa arrived at Please provide a detailed This migh m that not only summary of the following enhances aner environment. Just as the po document. Please also extract We kindly investment in awlist of keyouindividuals. Springfiel sed, "If you don't like your job, and do our very best! Document: {document} Please fe Thank you Best Regards, Lyle Lanley +1 (555) 123-4567 lyle.lanley@monorail.inc

#### **Human Summary**

Email from Lyle Lanley to the Springfield residents where he is announcing the 3 million budget of the monorail project and asks for the community's understanding and cooperation.

#### GPT-4

The document is an email sent by Lyle Lanley from Monorail Inc. to the residents of Springfield, dated 26th October 2021. The subject of the email is the Springfield Monorail Project...

#### Claude 2

- Email from Lyle Lanley of Monorail Inc. to Springfield residents regarding a proposal to fund a \$3 million monorail project in Springfield. The monorail aims to enhance accessibility...

#### **Jurassic Ultra**

Lyle Lanley is writing to discuss the future of Springfield, a town that seamlessly blends progress with its unique Springfield charm. The Monorail project, which has been discussed...

#### **Command**

The Springfield Monorail Project Funding Proposal sends a positive message to the residents of Springfield, emphasizing the ambitious Monorail project's potential for progress, economic...

#### GPT-3.5-Turbo

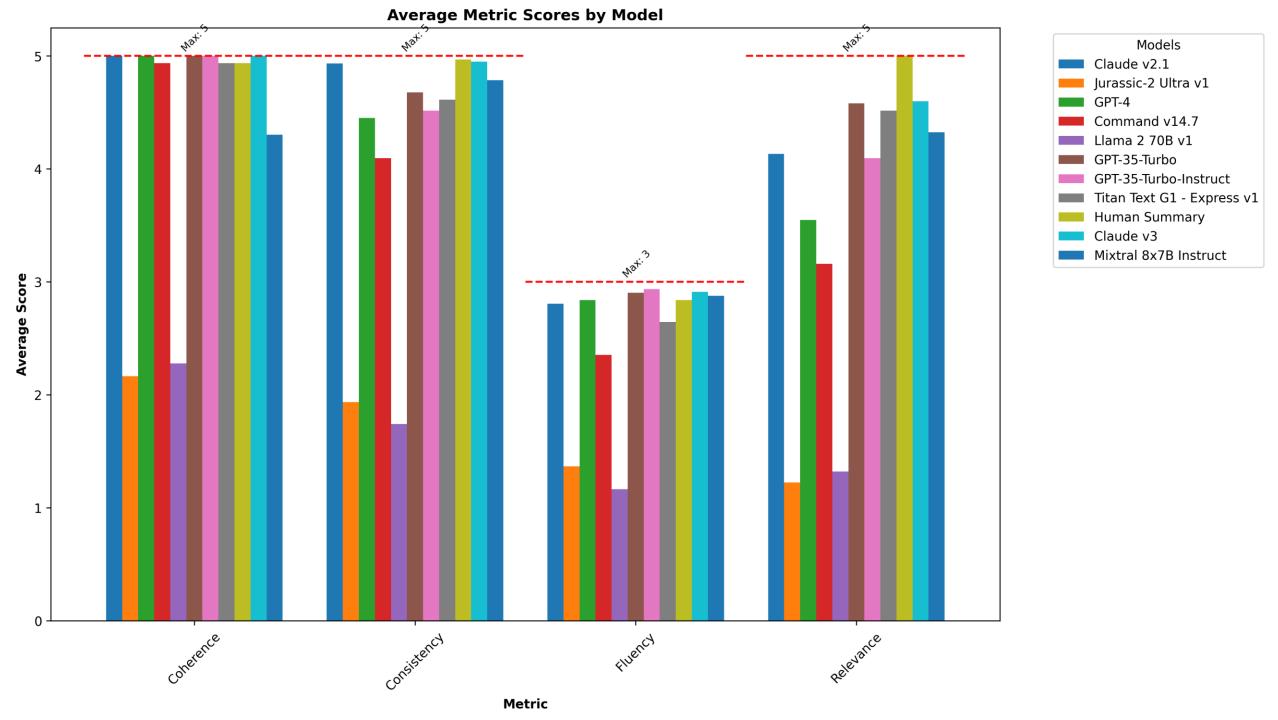
The document is a funding proposal for the Springfield Monorail project, sent by Lyle Lanley from Monorail Inc. to the residents of Springfield. The proposal outlines the need for a...

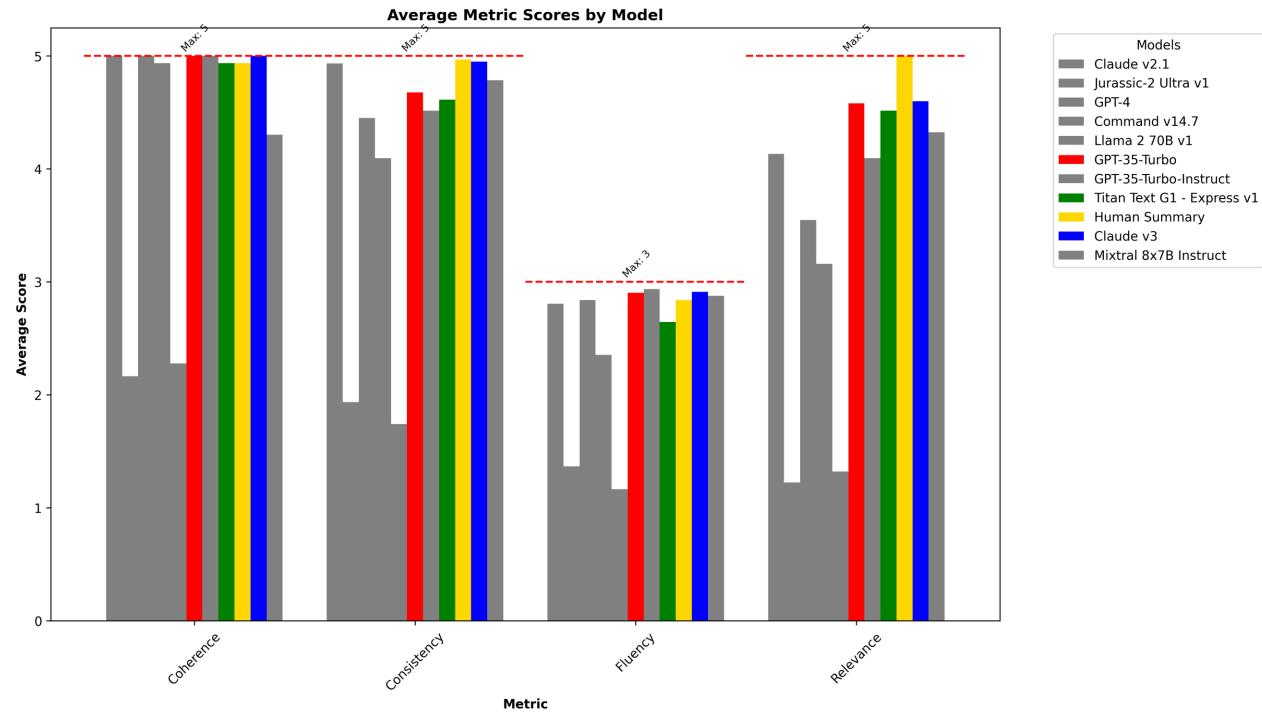
#### Llama 2 70B

Email from Lyle Lanley to the Springfield residents where he is announcing the 3 million budget of the monorail project and asks for the community's understanding and cooperation.

#### **Titan Express**

The Springfield Monorail Project Funding Proposal is discussed in the email, which is written to the residents of Springfield. The project's estimated cost of \$3 million is mentioned...







# Measuring ROI

#### **Human Review**

$$\left(\frac{Total\ number\ of\ documents}{Hourly\ review\ speed}\times\ junior\ lawyer\ hourly\ rate\right) + \left(\frac{Quality\ control\ sample\ set\ of\ documents}{Hourly\ review\ speed}\times\ senior\ lawyer\ hourly\ rate\right)$$

+minimal eDisclosure provider administration time

#### **CAL/Predictive Coding**

$$\left(\frac{c.\,5,\!000\;to\;25,\!000\;documents}{\textit{Hourly review speed}}\times\;lawyer\;hourly\;rate\right) + \left(\frac{\textit{Quality control sample set of documents}}{\textit{Hourly review speed}}\times\;senior\;lawyer\;hourly\;rate\right)$$

+ moderate senior lawyer time to address established process + moderate eDiscovery provider consulting time

#### **Generative AI Review**

 $(16\ hours\ \times\ junior\ lawyer\ hourly\ rate) + \left(\frac{Quality\ control\ sample\ set\ of\ documents}{Hourly\ review\ speed}\ \times\ senior\ lawyer\ hourly\ rate\right)$ 

 $+senior\ lawyer\ time\ to\ explain\ new\ process\ +higher\ eD$  is covery provider consulting time



# Token/Cost considerations

Tokenisation is the process of breaking inputs and outputs into units of test that the model can process:

Tokens Characters

14 60

A common tokenisation methods for LLMs is byte-pair encoding

Models are priced based on prompt and completion token counts - each **have differing costs**We can predict the token count for the input and there is an element of control on the output based on the Max Token setting which helps to give control over costs

#### The table below shows a comparison of costs for the previous summary prompt

Model	Token count (in/out)	Word Count (in/out)	Cost difference	Time to process 1 document *	Estimated time for 100,000 documents *
GPT 4	553/332	349/284	267x	24 seconds	28 days
GPT 4o	509/157	349/133	42x	2.08 seconds	2.5 days
GPT 3.5 Turbo	500/204	349/179	3x	1.51 seconds (fastest)	1.75 days
Claude 3 Opus	568/119	349/91	87x	9.27 seconds	11 days
AWS Titan	526/109	349/94	1x (cheapest)	3.66 seconds	4 days
Llama 3	511/138	349/118	10x	4.95 seconds	6 days

<sup>\*</sup> speed calculated based on API response times

# Generative AI is evolving rapidly.

We will be thoughtful and model agnostic.

Choose the right model for the right job



# Al21 labs

# **ANTHROP\C**

# amazon

# **SOPENAI**

#### **JURASSIC-2**

Multilingual LLMs for text generation in Spanish, French, German, Portuguese, Italian, and Dutch

#### Claude

LLM for thoughtful dialogue, content creation, complex reasoning, creativity, and coding, based on Constitutional AI and harmlessness training

#### **Amazon Titan**

Text summarization, generation, classification, open-ended Q&A, information extraction, embeddings and search

#### GPT-40

LLM available on Microsoft
Azure which accepts text
and image inputs.
Popularised through
publicly available ChatGPT.

# **c**ohere

#### **COMMAND + EMBED**

Text generation model for business applications and embeddings model for search, clustering, or classification in 100+ languages

# Google

#### Gemini

Multimodal model able to process text, images, audio, video and software code.

# **Meta**

#### LLaMA 3

Open source model trained on a data set curated to remove websites which disclose personal data

# **GenAl in Evidence**







# Production of GenAl Prompts and Responses (Interactions) in Copyright Dispute: *Tremblay v. OpenAl, Inc., No. 23-cv-03223-AMO (RMI) (N.D. Cal.)*



#### **JUNE 24, 2024**

# U.S. Magistrate Judge Robert M. Illman orders Plaintiffs to produce of all prompts, including negative testing results.

Account settings and negative test results are fact work product, that Plaintiffs waived the ability to assert work product protection by placing a large subset of those facts in the FCAC and Exhibit B

#### **AUGUST 8, 2024**

# U.S. Judge Araceli Martinez-Olguin grants Plaintiff's motion for relief

- "The Court DENIES Defendants' request to compel production of all negative testing results and the documentation of the testing process"
- Negative test results are protected as opinion work product

# Mona Awad and Paul Tremblay argue OpenAl breached copyright law by training its model on novels without their permission

Various discovery disputes have arisen

- Custodians
- Search and validation methodology
- Discovery experts appearing for both sides
- Production deficiencies

An Exhibit to the complaint was prepared by the lawyers for the plaintiffs, including prompts to ChatGPT

#### **PROMPT:**

Summarize in detail the first part of "The Cabin at the End of the World" by Paul Tremblay

#### **OUPUT:**

"The Cabin at the End of the World" by Paul Tremblay is a psychological horror novel that opens with a tense and unsettling premise. This summary covers the early parts of the novel:

The story begins with seven-year-old Wen, the adopted Chinese daughter of a gay couple, Andrew and Eric, who have decided to spend their vacation at a remote cabin in Northern New Hampshire. The area is completely secluded, the perfect place for the family to unwind without distractions. While her dads...



#### Was there another way?

- Were there original prompts from business users that motivated the dispute in the first place, which could have been collected as evidence?
- Was the exhibit necessary to file the case?
- Could an expert have been hired to generate the prompts and the exhibit?

#### As to the heart of the matter

If they did, when and how did the defendants gain access to the author's material?



#### Interactions with Generative AI as a Source of Evidence

Generative Al's entrance into enterprise environments has created a new dimension of company information and potential liability that many organizations aren't quite sure how to handle.

Information governance controls are now required for an uncharted category of records—namely "interactions," which are logs of prompts used to query AI tools.

New discovery rules and processes must be established for data categories that haven't been discoverable, including interactions and company documents created entirely by a machine.

0101 0010 1010

Generative AI tools store artifacts that will introduce new ediscovery implications when data related to or from the tools intersects with a dispute or investigation.



It will be challenging to preserve these artifacts, defensibly collect them, process them into an ediscovery tool, and render them useful for analysis and review.



Legal arguments about interactions with generative AI, their qualification as communications, and whether they may be subject to discovery will be complicated, if not contentious.



Considering the typical 12- to 24-month lag time between the adoption of emerging technology and its appearance in relevant litigation or investigations, the clock is ticking.



Whether an organization currently sanctions the use of generative AI for business, potentially relevant evidence from generative AI has probably already been created.



#### Can you answer these questions?

- What happens to generative Al interactions within your [client's] organization?
- Where are interactions stored?
- Are they being retained or disposed of?
- *Are they being monitored?*



# Generative Al Governance – Key Principles

#### **■ Ethical Guidelines**

Establish clear guidelines outlining the intended use cases for Gen Al and prohibited areas of use.

#### Data Privacy and Security

Implement robust data privacy and security measures to protect sensitive data used by Gen Al models. Ensure compliance with relevant regulations such as GDPR or CCPA.

#### Transparency and Explainability

Ensure that the models used by Gen Al are explained and understood by employees, stakeholders, and intended users, including the model's use of data and potential impact.

#### Bias and Fairness

Identify and mitigate biases in training data and generated outputs. Carefully select training data, conduct fairness testing, and implement ongoing monitoring of model performance.

#### Human Oversight

Establish human oversight throughout the Al development lifecycle – human judgment is vital for assessing the model and outputs, making decisions, and intervening when necessary.

#### Accountability and Responsibility

Ensure that the Gen AI is designed and trained responsibly, without biases, and with safeguards to prevent misuse or errors, and hold accountable those responsible for it. Roles and ownership over each aspect of Gen AI are well documented.

#### ■ Risk Management

Conduct Risk Assessments to identify potential risks of Gen AI, such as misuse, unintended consequences, or security vulnerabilities. Develop strategies to mitigate these risks.

#### Regulatory Compliance

Monitor for relevant regulations and standards updates governing AI technologies in your industry and region of operation. Ensure compliance with applicable laws and guidelines.

#### Continuous Monitoring and Evaluation

Regularly monitor the performance and impact of Gen AI systems. Continuously evaluate their effectiveness, fairness, and adherence to ethical principles.



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# DeepSeek Challenges the Incumbent LLM Providers

#### FINANCIAL TIMES

COMPANIES TECH MARKETS CLIMATE OPINION LEX WORK & CAREERS LIFE & ARTS HTSI

DeepSeek ( + Add to myFT

# How small Chinese AI start-up DeepSeek shocked Silicon Valley

Hedge fund billionaire Liang Wenfeng builds model on tight budget despite US attempt to halt China's high-tech ambitions

"The first person to train models has to expend lots of resources to get there," he said. "But the second mover can get there cheaper and more quickly."

Gupta added that China had a much larger talent pool of systems engineers than the US who understand how to get the best use of computing resources to train and run models more cheaply.

Industry insiders say that even though DeepSeek has shown impressive results with limited resources, it remains an open question whether it can continue to be competitive as the industry evolves.

Returns at High-Flyer, its big backer, lagged behind in 2024, which one person close to Liang blamed on the founder's attention being mostly focused on DeepSeek.

Its US rivals are not standing still. They are building mega "clusters" of Nvidia's next-generation Blackwell chips, creating the computing power that threatens to once again create a performance gap with Chinese rivals.

This week, OpenAI said it was creating a joint venture with Japan's SoftBank, dubbed Stargate, with plans to spend at least \$100bn on AI infrastructure in the US. Elon Musk's xAI is massively expanding its Colossus supercomputer to contain more than 1mn GPUs to help train its Grok AI models.

"DeepSeek has one of the largest advanced computing clusters in China," said Liang's business partner. "They have enough capacity for now, but not much longer."

#### MIT Technology Review

Featured Topics Newsle

DeepSeek R1 has been praised by researchers for its ability to tackle complex reasoning tasks, particularly in mathematics and coding. The model employs a "chain of thought" approach similar to that used by ChatGPT o1, which lets it solve problems by processing queries step by step.

Dimitris Papailiopoulos, principal researcher at Microsoft's AI Frontiers research lab, says what surprised him the most about R1 is its engineering simplicity. "DeepSeek aimed for accurate answers rather than detailing every logical step, significantly reducing computing time while maintaining a high level of effectiveness," he says.

ory



s critical mineral ban

DeepSeek has also released six smaller versions of R1 that are small enough to run locally on laptops. It claims that one of them even outperforms OpenAI's o1-mini on certain benchmarks. "DeepSeek has largely replicated o1-mini and has open sourced it," tweeted Perplexity CEO Aravind Srinivas. DeepSeek did not reply to MIT Technology Review's request for comments.

Yann LeCun in • 3rd+
VP & Chief Al Scientist at Meta
3d • ⑤

To people who see the performance of DeepSeek and think:

"China is surpassing the US in Al."

You are reading this wrong.

The correct reading is:

"Open source models are surpassing proprietary ones."

DeepSeek has profited from open research and open source (e.g. PyTorch and Llama from Meta)

They came up with new ideas and built them on top of other people's work. Because their work is published and open source, everyone can profit from it.

That is the power of open research and open source.

**CC** 22,760

650 comments · 1,338 reposts

#### Where We Store Your Information

The personal information we collect from you may be stored on a server located outside of the country where you live. We store the information we collect in secure servers located in the People's Republic of China.

Where we transfer any personal information out of the country where you live, including for one or more of the purposes as set out in this Policy, we will do so in accordance with the requirements of applicable data protection laws.

# **Our Capabilities**







# **Introducing IQ.AI by FTI Technology**

IQ.AI is an advanced suite of AI-driven solutions designed to address data-intensive challenges in legal and compliance matters









#### **EXPERTISE**

Decades of experience applying industry-leading advanced data analytics and Artificial Intelligence in legal and compliance use cases

#### **WORKFLOWS**

Proprietary and proven workflows that reduce cost and risk while maximizing value, scalability, accuracy, automation and verifiability

#### **TECHNOLOGY**

Best-of-breed approach leveraging LLMs and advanced analytics and AI functionality in Relativity aiR, Reveal and other industry-leading platforms

# **Our Custom Solutions**

F T I

Menu of Generative Al Products & Services



#### **AVAILABLE SOLUTIONS**

Based on feedback and ideation from hundreds of hands-on AI workshops and real-world experience, FTI is proud to offer our initial phase of GenAI solutions that are deployable on any new or existing matters on an as-needed basis.

#### LARGE LANGUAGE MODEL WORKBENCH

Quickly and easily run prompts over individual documents to assess their effectiveness and refine using prompt engineering techniques.

#### **ADVANCED OCR**

By utilizing a combination of existing tools, including 'traditional' AI, we can use GenAI to significantly enhance the quality of outputs

#### **CHRONOLOGIES & BUNDLES**

We can produce summarized content and outline timelines to provide an accessible overview of key activities and events

#### CONTRACT DATA POINT EXTRACTION

We can pull out key data points from contracts to accelerate review and ensure compliance with regulations in the region in question

#### **DOCUMENT SUMMARIZATION**

We can rapidly summarize documents to aid with the understanding of content or focus—this feature has wide-ranging use cases

#### **FORMS DATA EXTRACTION**

In addition to retrieving key information, we can also identify and include handwriting (e.g. annotations) from scanned materials

#### IMAGE & VIDEO DESCRIPTION

We are able to describe the content of images and video with a high degree of accuracy, making the activities contained therein searchable

#### **NATURAL LANGUAGE SEARCH OR Q&A**

Using similar technology to our LLM Workbench, this focuses on using natural language to ask LLMs questions on the content of documents

#### **RELEVANCE & ISSUES CLASSIFICATION**

Identifying and extracting relevant material is given a Gen AI uplift and underpinned by data scientists specializing in e-discovery

# **Our Custom Solutions**

Menu of FTI Enrich Products & Services



# ENRICH by FTI Technology

#### **AVAILABLE SOLUTIONS**

Developed over decades of eDiscovery experience, FTI has focused on enhancing your understanding of your data, extracting, analysing, and ENRICHING the information to provide greater insight.

#### **ENRICH FRAMEWORK**

Designed to plug and play across tools and projects, FTI can quickly and efficiently ENRICH any segment of your data at the document, search, individual or data set level.

#### **METADATA ANALYSIS**

Weekday / Weekend classification

Outside office hours unusual activity detection

Document size classification on word count

Internal / External communication analysis

Email participant count analysis and exclusions

IP Theft detection email domain analysis

#### **ENHANCED OCR**

Advanced text extraction

Automated form and table parsing

#### **IMAGE ANALYSIS**

Image labelling
Facial Comparison
Object Detection
Sensitive Data / PII De

#### NATURAL LANGUAGE PROCESSING

Sentiment Analysis

Next-Gen Transcription / Translation



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