

What can AI do for Advanced Legal Research?

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IRIS24, 2/16/2023

Latest version of ChatGPT aces bar exam with score nearing 90th percentile

[ABA journal. 2023/03/16](#)

ChatGPT Passed the Uniform Bar Examination: Is Artificial Intelligence Smart Enough to be a Lawyer?

[Miami Law. 2023/04/07](#)

Will AI Replace Lawyers?

[Forbes. 2023/5/25](#)

1 in 4 Large Law Firms Expect Generative AI to Replace Jobs Internally in Next 5 Years

[Law.com. 2023/8/21](#)

**Will ChatGPT make lawyers obsolete?
(Hint: be afraid)**

[Reuters. 2022/12/09](#)

Stellar or so-so? ChatGPT bar exam performance sparks differing opinions

[Reuters, 2023/05/31](#)

ChatGPT Can Pass the Bar Exam. Does That Actually Matter?

[CNET, 2023/03/19](#)



Paris Marx

@parismarx

it's so funny to me that the AI people think it's impressive when their programs pass a test after being trained on all the answers

4:53 AM · Mar 15, 2023 · 77K Views

[Twitter, 2023/03/15](#)

Opinion: ChatGPT Isn't 'Hallucinating.' It's Bullshitting.

[Undark, 2023/04/06](#)

Can Lawyers Trust AI?

[Daily report, 2023/11/23](#)

Deep learning models are...

- error-prone
- unpredictable
- biased in unintended ways
- not configurable
 - no debugging!
- not explainable
 - or worse: false explanations
- not auditable
 - and possibly illegal (see the [EU AI Act](#))

Common tasks in legal text processing

Summarization

Question Answering

Argument mining

Judgment Prediction

Rhetorical Role Labeling

Named Entity Recognition

Summarization

Long Summary L: This case is about an apprenticeship test that had a disparate impact on Black apprenticeship applicants. The ^[a]Equal Employment Opportunity Commission (EEOC) filed this lawsuit on ^[d]December 27, 2004, in ^[e]U.S. District Court for the Southern District of Ohio. Filing ^[a]on behalf of thirteen Black individuals and ^[f]similarly situated Black apprenticeship test takers, the EEOC alleged that ^[g]the individuals' employer, the Ford Motor Company, as well as their union, the United Automobile, Aerospace, and Agricultural implement workers of America (the "UAW"), and the Ford-UAW Joint Apprenticeship Committee, violated ^[h]Title VII of the Civil Rights Act, 42 U.S.C. § 1981, and Michigan state anti-discrimination law. At issue were the selection tests for apprenticeship training programs, whose disparate impact denied Black applicants eligibility and admission. ^[i]The EEOC sought injunctive relief, as well as damages (including backpay) for the Black apprenticeship applicants. The case was assigned to ^[j]Judge Susan J. Dlott.

^[k]The individuals also brought a separate class action against Ford and the UAW, *Robinson v. Ford Motor Company*, (No. 1:04-cv-00844), and the cases were consolidated on January 6, 2005. As a result, the case was transferred to ^[j]Judge S. Arthur Spiegel. Six months later, in June 2005, both cases were resolved via a ^[l]class settlement agreement. Ford agreed to pay \$8.55 million and to implement a new selection process for its apprenticeship programs. This agreement further required Ford to hire an industrial psychologist to design this new selection process and to place 279 members of the settlement class on the eligibility list for the Ford apprenticeship program.

On ^[m]June 15, 2005, the court found that the proposed settlement agreement was fair. ^[n]2005 WL 5253339. The next day, the court ordered that Ford pay \$1.1 million to cover attorneys' fees and expenses incurred during settlement negotiations, and \$567,000 to cover fees and expenses associated with the implementation and monitoring of the settlement agreement. ^[n]2005 U.S. Dist. LEXIS 12071. As ^[o]the settlement was initially scheduled to last for three years, and ^[p]there is no further activity on the docket sheet, this case presumably closed in 2008.

Short Summary S: This case is about an apprenticeship test that had a disparate impact on Black apprenticeship applicants. The Equal Employment Opportunity Commission (EEOC) filed this lawsuit on December 27, 2004, in U.S. District Court for the Southern District of Ohio. Filing on behalf of thirteen Black individuals and similarly situated Black apprenticeship test takers, the EEOC alleged that the individuals' employer, the Ford Motor Company, as well as their union, the United Automobile, Aerospace, and Agricultural implement workers of America (the "UAW"), and the Ford-UAW Joint Apprenticeship Committee, violated Title VII of the Civil Rights Act, 42 U.S.C. § 1981, and Michigan state anti-discrimination law. The EEOC sought injunctive relief and damages for the Black apprenticeship applicants. The individuals also brought a separate class action against Ford and the UAW, and the cases were consolidated. In June 2005, both cases were resolved via a class settlement agreement. Ford agreed to pay \$8.55 million and to implement a new selection process for its apprenticeship programs, and the court ordered Ford to cover attorneys' fees and expenses. This case is closed.

Tiny Summary T: 2005 class action settlement resulted in Ford paying \$8.55m to redesign its selection process for apprenticeship programs to address the previous process's disparate impact on Black applicants.

Question Answering

Is an airline liable for its pilot's negligence?	SME label
A carrier would not be liable for an error of judgment of the pilot, not constituting positive negligence on his part in exercising such judgment; but liability is incurred if the pilot, by his negligent and careless conduct, has created a situation requiring the formation of a judgment and then errs in the exercise thereof.	3
An airline corporation is not an insurer of the safety of its passengers. The liability of an airline corporation must be based on negligence.	1
Airline pilot who was accused of raping flight attendant has no tort claim against airline based upon its alleged negligent investigation of accusation, even if airline's policy of investigating sexual harassment complaints creates duty to use due care in conducting investigation,...	0

Argument mining

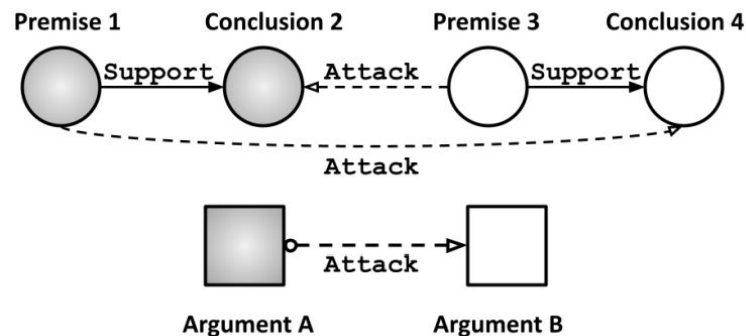
In the Government's submission, the fact that they had maintained that this was the foundation of the suspicion should be given considerable weight by the Court. They also pointed to a number of other facts capable of supporting, albeit indirectly, the reasonableness of the suspicion, including notably the findings made by the domestic courts in the proceedings They submitted that all these matters taken together provided sufficient facts and information to satisfy an objective observer that there was a reasonable suspicion in the circumstances of the case. Any other conclusion by the Court would, they feared, prohibit arresting authorities from effecting an arrest of a person suspected of being a terrorist based primarily on reliable but secret information and would inhibit the arresting authorities The first applicant, on the other hand, considered that the Government had failed to discharge the onus of disclosing sufficient facts to enable the Convention institutions to conclude that the suspicion grounding her arrest was reasonable.

Premise 1

Conclusion 2

Premise 3

Conclusion 4



Judgement prediction

Claims (Stage 1)

1. The defendant 1 repays the plaintiff the principal of the loan of \$510,000;
2. The defendant 1 pays for the interest of \$110,000;
3. The defendant 2 shall be jointly and severally liable for the above debts.

Court Debate (Stage 2)

.....

Judge: Plaintiff, please state the facts and the request of litigation.

Plaintiff: Defendant 1 borrowed \$510,000 from me on February 7, 2012, February 11, 2012, and February 6, 2013, and we agreed that the monthly interest rate for the loan was 13 %.

Defendant 1: It is a fact that I borrowed \$510,000. The monthly rate of 13 % was agreed verbally, without written agreement.

Defendant 2: I don't know. Now we are divorced. Divorced on August 23, 2013. I didn't know about the loan. The divorce agreement stated that the debt was paid by the defendant 1 himself.

.....

Fact Summary (Stage 3)

.....

The two defendants got married on December 5, 1986, and on August 23, 2013, they registered for divorce. The loan involved in the case occurred during the duration of the marriage relationship.

.....

Fact Label: Couple Debt

Judgement (Stage 3)

1. Support
2. Partially Support
3. Support

Rhetorical Role labeling

IN THE COURT OF THE V ADDL SESSIONS JUDGE, MYSORE. Dated this the 23rd day of May 2013 ... **Preamble**

The Petitioner is a businessman and he is permanent resident of Mysore City... **Fact**

On behalf of the Prosecution the learned Public Prosecutor has filed objection to the bail Petition stating that, there ... **Arg by Respondent**

Now, the points that arise for consideration of the Court are: 1. Whether the Petitioner has made out sufficient grounds to release him on Anticipatory Bail? ... **Issue**

Heard the arguments advanced by the learned advocate for the Petitioner and the learned Public Prosecutor... **None**

▶ Considering all these aspects, the Court is of the view that, ... **Ratio**

Point No.2: For the foregoing reasons and in view of my above discussions, I proceed to pass the following ... **Ruling by present court**

The High Court by its order dated October 26, 1982 set aside the order of the Tribunal and also the assessment on the ground ... **Ruling by lower court**

The petitioners are falsely implicated and the charge sheet has been filed against the petitioners merely ... **Arg by Petitioner**

My findings on the above points are as follows: Point No.1 : In the Positive Point No.2 : As per final order for the following... **Analysis**

In a decision reported in (2013) 1 KCCR 334 case of K.Ramachandra Reddy Vs. State of Karnataka by the Station House Officer... **Precedent Relied upon**

The decision of the Andhra Pradesh High Court ... are not relevant for purposes of deciding the question which has arisen before us... **Precedent not Relied upon**

Named Entity Recognition (NER)

The **Supreme Court of India** **COURT**
Criminal Appeal Jurisdiction
[Arising out of Special Leave Petition (Crl.) No. 7999/2010

State of Kerala **PETITIONER** ... Appellant

-versus-

Raneef **RESPONDENT** ... Respondent

Judgement

Markandey Katju **JUDGE**

Preamble

1. Leave granted

2. Heard Learned counsel for the parties

3. The appellant has filled this appeal challenging the impugned order of the **Kerala High Court** **COURT** dated **17.09.2010** **DATE** granting bail to the respondent Dr. **Raneef** **OTHER_PERSON**, who is a medical practitioner (dentist) in **Ernakular** **GPE** district in **Kerala** **GPE**, and is accused in crime no. 704 of 2010 of **P.S. Muvattupuzha** **ORG** for offences under various provisions of the **I.P.C. Statute**, the **Explosive Substances Act** **Statute** and the **Unlawful Activities (Prevention) Act** **Statute**.

Judgement Text

Common tasks in legal text processing

Summarization

Output is text

Question Answering

Argument mining

Judgment Prediction

Rhetorical Role Labeling

Output is structure

Named Entity Recognition

How can we evaluate the quality of AI output?

Quantitative

Output is structure

Accuracy

Precision

Recall

Qualitative

Systematic error analysis

Output is text

Human judgement (of what?)

Similarity (?) with human output

Plausibility (??!)

Some takeaways

- Generative AI's quality is **hard to predict** and often **hard to assess**
- **Narrower** tasks that look for **structure** can be solved **more reliably**
- Considering the **training targets** and the **evaluation metrics** is crucial to understand a model's **strengths and risks**

Thanks for your attention!