Information or Institution?
AI's Role in Expert Testimony

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What Expert Witnesses Provide in Copyright Litigation

- **Specialized knowledge that judges and juries may not have**
  - Experts explain technical features of copyrighted works, including whether similarities concern protectable expression. (Joyce et al., 2016)
- **Specialized knowledge needed by the court**
  - Expert testimony is used when specialized knowledge is needed to help the judge or jury understand the evidence or determine a fact in issue. (Helland, 2019)
- **Expert witness is not just information**
  - A named expert brings qualifications and experience, takes responsibility for the analysis, and must defend it under deposition and cross-examination. (Helland, 2019)

Daubert: Judges Screen Experts Before the Jury Hears Them

- Under Federal Rule of Evidence 702, the judge acts as a **gatekeeper**: expert testimony must be relevant, reliable, and useful to the trier of fact.
- A *Daubert* motion is used when opposing litigation wants to exclude the expert's testimony. There are 4 categories of reasoning a judge uses. (Helland, 2019)

Category	Whether judges accepts or denies expert testimony
Methodology	bad methods, insufficient data, ipse dixit validity
Relevance	usefulness to the trier of fact
Expertise	qualifications, whether the witness is outside the relevant field
Procedure	admissibility rules, and other gatekeeping constraints

We focus on AI screening of information in expert testimony

- Courts evaluate expert testimony along multiple dimensions, including methodology, relevance, and qualifications. (Helland, 2019)
- Expert testimony therefore contains two conceptually distinct components:
  - **information**: the methods, data, and evidentiary objectives supplied by the expert;
  - **institution**: credentials, experience, accountability, and ability to defend the analysis in court.
- AI makes it possible to ask whether the **informational component** can be reconstructed independently from the facts of the dispute.
- **Research question: How much of expert testimony reflects information that AI can recover?**

We focus on AI screening of information in expert testimony

- **How much of expert testimony is informational content that AI can reconstruct from the facts of a case?**
  - We use **61 publicly available copyright *Daubert* cases** from 2000–2025 with sufficient factual detail.
  - We remove the retained expert's identity, credentials, methodology.
  - From the case facts alone, AI proposes the expert qualifications and analytical methods the dispute appears to require.

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- **We answer this in two complementary steps.**
  - **Methodological reconstruction** — compare the objectives and methods proposed by AI with those actually used by the retained expert.
  - **Institutional attributes** — compare the qualifications proposed by AI with those of retained experts, and examine how courts separately evaluate qualifications and methodology.

Preview of Results

- **AI recovers much of the methodological content of retained expert testimony.**
  - AI proposals cover **82.3%** of the objectives addressed by retained experts.
  - AI proposes the same or a substantively equivalent method for **47.7%** of actual objectives.
- **AI also recovers the type of expertise the case appears to require.**
  - AI proposes experts with stronger average academic credentials (**8.30 vs. 5.52**) and industry experience (**7.89 vs. 6.03**) than the experts actually retained.
  - The credential gap is largest when the retained expert is excluded on qualifications.
- **Courts treat qualifications and analytical work as distinct dimensions.**
  - Strong credentials protect experts against challenges to whether they are qualified to testify.
  - But strong credentials do not protect weak methodology: among PhD/professor experts, **50.0%** of methodology challenges result in exclusion.

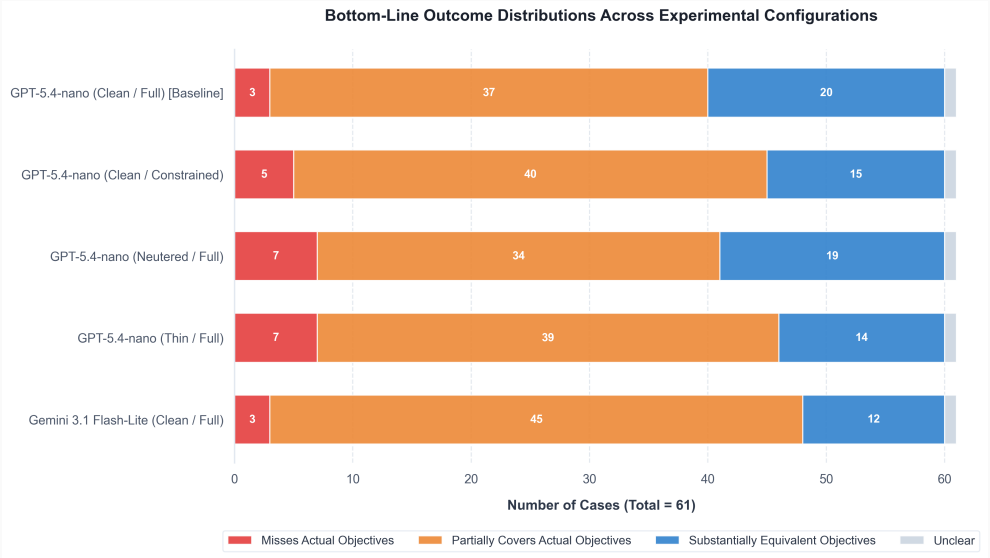
Economic Theory: AI Makes Methodology Less Informative

- **Methodology can help courts distinguish expert quality.**
  - When producing rigorous analysis is more costly for low-quality experts, methodological quality acts as a screening signal. (Miyazaki, 1977; Wilson, 1977; Rothschild and Stiglitz, 1978)
- **AI reduces the cost of producing plausible expert analysis.**
  - Lower-quality experts can more easily produce work that resembles the methodological output of higher-quality experts.
- **Courts may therefore rely relatively more on institutional signals.**
  - Qualifications, experience, accountability, and the ability to defend the analysis become more informative when methodology is easier to reproduce. (Helland, 2019)

Empirical Tests

- **1. What do judges look for when evaluating experts?**
  - We identify why judges accept or exclude expert testimony.
  - We compare the role of **credentials** and **methodology**.
- **2. How much of the expert's work can AI recreate, and does it matter?**
  - We compare what AI proposes with what the retained expert actually did.
  - We examine both the **analysis** and the **type of expert** proposed.
  - We test whether greater AI–expert alignment is related to whether the expert is excluded.
- **Robustness: Do the results change under different AI settings?**
  - We use less case information, shorter AI responses, another AI model, and alternative ways of defining the expert's objectives.

AI Usually Recovers What the Expert Is Trying to Do



Conclusion