

AI and Expert Witnesses: Not Replacement, But a Strategic Imperative

By Michael C. Maschke, Sharon D. Nelson, Esq., and John W. Simek

Lawyers have long known that expert testimony can make or break a case. Whether the issue concerns damages, causation, medical matters, engineering analysis, or economic modeling, experts provide the specialized knowledge courts rely on. Artificial intelligence (AI) has now entered this space, not as a replacement for experts but as a tool reshaping how expert testimony is analyzed, prepared, and challenged.

To be clear, no AI system is about to take the stand. What AI can do, and already does, is change the mechanics of how expert evidence is reviewed and tested. Used thoughtfully, AI offers real strategic advantages. Used carelessly, it can undermine credibility and, in some cases, lead to the exclusion of critical testimony.

What we are seeing is not an AI takeover of expert witnesses, but a supplemental model in which lawyers and experts use AI to amplify insight and scrutiny.

AI as a Litigation Multiplier

One of the most powerful uses of AI in expert work is large-scale review. Expert reports, deposition transcripts, prior testimony, data tables, and technical literature can now be analyzed at a scale no human team could reasonably manage. AI tools can flag internal inconsistencies, identify conflicts with prior opinions, and surface alternative explanations that might otherwise go unnoticed.

This changes the dynamic in the war room. Instead of spending countless hours on review, lawyers can focus on interpretation, judgment, and strategy. AI does all the heavy lifting, and lawyers can decide what matters.

Sharpening the Edge on Cross-Examination

AI is also being used to simulate adversarial questioning. By feeding an expert's report and prior statements into a model configured to challenge assumptions and probe weaknesses, lawyers can pressure-test testimony before it ever reaches the courtroom.

This does not replace traditional mock examinations. It enhances them. Experts can refine responses, anticipate lines of attack, and identify weak points early. On the flip side, lawyers challenging opposing experts can use AI to synthesize prior testimony and

technical literature into focused lines of cross-examination that expose contradictions or unsupported assumptions.

Translation, Accessibility, and Persuasion

Expert testimony often fails not because it is wrong, but because it is incomprehensible. AI can help translate dense technical analysis into language that judges and juries can understand.

Used properly, AI can help recast complex engineering conclusions into practical explanations, distill economic models into plain language, and highlight the core takeaways without distorting substance. This is not about dumbing things down. It is about effective communication.

Lawyers who can present expert findings clearly and persuasively will always have an advantage over those who bury the factfinder in technical jargon.

Hallucinations and Overreliance Are Real Risks

The risks of AI use are not hypothetical. Courts have already rejected expert submissions that included AI-generated citations or analyses that did not exist. In those cases, the very tool meant to improve efficiency became a source of false information because it was not adequately supervised.

This is a cautionary tale every litigator should internalize. AI can generate content that looks plausible but is not real. A human must still verify every citation, dataset, and conclusion. The duty to ensure accuracy has not changed.

Ethics and Best Practices

AI is not a magic solution. Responsible use in expert work requires structure and discipline.

Lawyers should clearly document how AI tools were used in preparation or review of expert testimony. Experts should receive guidance on avoiding hallucinogenic content and ensuring that all conclusions are independently validated. Confidential data must be protected, and sensitive material should not be fed into tools that lack appropriate safeguards.

Transparency also matters. As courts become more familiar with AI, judges may expect disclosure when AI plays a meaningful role in expert analysis. That expectation is not about discouraging the use of AI. It is about maintaining trust in the reliability of evidence.

The Bottom Line

AI is not replacing expert witnesses, but it is transforming how expert testimony is handled in litigation. Lawyers who use AI thoughtfully can review more material, prepare more effectively, and present complex ideas more clearly.

Those who ignore it risk falling behind. Those who misuse it risk harming their cases and their credibility.

At its best, AI turns overwhelming volumes of information into actionable insight. At its worst, it turns fiction into fact. The difference is human oversight, and that responsibility still rests squarely with the lawyer.

Michael C. Maschke is the President and Chief Executive Officer of Sensei Enterprises, Inc. Mr. Maschke is an EnCase Certified Examiner (EnCE), a Certified Computer Examiner (CCE #744), an AccessData Certified Examiner (ACE), a Certified Ethical Hacker (CEH), and a Certified Information Systems Security Professional (CISSP). He is a frequent speaker on IT, cybersecurity, and digital forensics, and he has co-authored 14 books published by the American Bar Association. He can be reached at mmaschke@senseient.com.

Sharon D. Nelson is the co-founder of and consultant to Sensei Enterprises, Inc. She is a past president of the Virginia State Bar, the Fairfax Bar Association, and the Fairfax Law Foundation. She is a co-author of 18 books published by the ABA. snelson@senseient.com.

John W. Simek is the co-founder of and consultant to Sensei Enterprises, Inc. He holds multiple technical certifications and is a nationally known digital forensics expert. He is a co-author of 18 books published by the American Bar Association. jsimek@senseient.com.