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AI and Evidence: What Should Judges Look For?

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EXECUTIVE SUMMARY

Professor White begins her paper by briefly examining all the ways the legal system uses artificial intelligence ("AI") and asks us to consider an important question: When AI evidence is offered in court, how should judges evaluate it? Part II examines how the backdrop of America's adversarial justice system impacts the evidentiary process generally and describes the role of juries and judges.

In Part III, Professor White reviews existing evidence rules and principles and evaluates whether applying them to AI evidence will meet the stated purposes of the rules of evidence. Following consideration of existing evidentiary principles, Part III differentiates between evidentiary and illustrative uses of AI. In the final analysis, Professor White believes current evidentiary rules can apply to AI evidence, although they may require modification. Part IV moves from the abstract to the concrete, outlining common case scenarios in which AI evidence or illustrative aids may be used; the likely objections and responses; and the appropriate trial and appellate court responses.

To benefit from past experiences, Part V underscores lessons courts have learned when previously confronted with technological change and suggests an approach to avoid prior unfortunate mistakes. In particular, Professor White briefly revisits the intense debate over Daubert*, contends that scientifically unsound evidence was frequently admitted in the past, and argues for approaching AI evidence with heightened care to avoid repeating past mistakes with scientific evidence. This leads directly into Part VI, which highlights some additional concerns about the in-court use of AI evidence and illustrative aids that raise questions about courts' continued ability to resolve disputes consistent with the purposes of evidentiary rules and principles. The paper concludes with a discussion of some approaches to these concerns, relying largely on existing rules but also making suggestions for modifying and reconsidering others.*

In the conclusion, Professor White admits that AI evidence prompts questions that we cannot definitively resolve today and expresses her gratitude to the state court judges dealing with these difficult questions from the front lines.

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INTRODUCTION

The proper application of sound evidence principles promotes consistency in the administration of justice, facilitates predictable legal outcomes, and creates confidence in and respect for the justice system. Evidence principles must be applied consistent with their underlying purposes, which are defined in terms of producing a fair and just outcome in every judicial proceeding.[1]

Codified evidence rules, derived from longstanding evidence principles,[2] are to be construed to assure that proceedings are administered both fairly and efficiently, but fairness and efficiency are not the ultimate goals. Rather, the goals, as codified in Rule 102 of the Federal Rules of Evidence and its state counterparts,[3] are to "ascertain[] the truth and secur[e] a just determination."[4] Thus, in considering whether evidence rules function properly, the inquiry must be grounded not only in what the evidence rules require but also in whether the application of the rules furthers the underlying goals. Undoubtedly, the proposition of evaluating whether a rule produces truthful and just results is lofty and complicated, it is nonetheless necessary when reviewing the effect of the rules on *any* evidence; moreover, it assumes heightened significance when the evidence at issue is produced or generated by artificial intelligence.

This paper begins by introducing relevant concepts and highlighting common, court-related uses of artificial intelligence (AI) and generative artificial intelligence (GAI) in Part I.[5] To begin to answer the question, "What Should Judges Look For?" when AI or GAI evidence is offered in court, Part II examines how the backdrop of America's adversarial justice system impacts the evidentiary process, generally, and specifically, how it affects the use of AI and GAI evidence in court. Emphasizing the distinctive roles of counsel, judge, and jury, this Part suggests that state trial court judges use a simple, systematic approach in ruling on challenges to AI and GAI evidence and contends that, by following this approach, trial court rulings will continue to warrant the deferential appellate review standards currently in use.

In Part III, the paper reviews existing evidence rules and principles and evaluates whether applying existing rules, principles, and appellate review standards to AI and GAI evidence will

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[1] *See e.g.*, Fed. R. Evid. 102.

[2] McCray v. Illinois, 386 U.S. 300, 309 (1967) (noting, in the context of applying evidentiary privileges in a criminal case, that "the rules of evidence in criminal trials are governed by the principles of the common law as they may be interpreted by the courts of the United States in the light of reason and experience"); Werner v. Upjohn Co., Inc., 628 F.2d 848, 856 (4th Cir. 1980) (noting that "in enacting the Federal Rules of Evidence Congress did not intend to wipe out the years of common law development in the field of evidence, indeed the contrary is true"). *See also* Funk v. U.S., 290 U.S. 371, 381 (1933) (noting that "fundamental basis upon which all rules of evidence must rest -- if they are to rest upon reason -- is their adaptation to the successful development of the truth. And since experience is of all teachers the most dependable, and since experience also is a continuous process, it follows that a rule of evidence at one time thought necessary to the ascertainment of truth should yield to the experience of a succeeding generation whenever that experience has clearly demonstrated the fallacy or unwisdom of the old rule").

[3] This paper often uses the following citation form: "*see e.g.*, Fed. R. Evid. ___. This citation to the representative federal rule of evidence is for simplification and is justified because the vast majority of states have adopted evidence rules that are identical or very similar to the federal rules of evidence.

[4] Fed. R. Evid. 102.

[5] For ease of reference, throughout this paper the phrase AI or GAI refers to artificial intelligence (AI) and generative artificial intelligence (GAI) as defined in *infra* note 7.

meet the stated purposes of the rules of evidence. Following consideration of existing abstract evidentiary principles, Part III differentiates between evidentiary and illustrative uses of AI and GAI. Part IV moves from the abstract to the concrete, outlining common case scenarios in which AI or GAI evidence or illustrative aids may be used; the likely objections and responses; and the appropriate trial and appellate court responses.

To benefit from past experiences, Part V underscores lessons courts have learned when previously confronted with evidentiary challenges and suggests an approach to avoid prior unfortunate mistakes. Part VI highlights some additional concerns about the in-court use of AI and GAI evidence and illustrative aids, particularly concerns that raise issues of courts' continued ability to resolve disputes consistent with the purposes of evidentiary rules and principles. The paper concludes with a discussion of some approaches to these concerns, relying largely on existing rules but also making suggestions for modifying and reconsidering others.

Part I: The Concepts and The Scope

A. AI and GAI: Definitions

If human intelligence is properly thought of as the ability of humans to learn, then artificial intelligence may be regarded as the ability of machines to learn. In fact, when Stanford Professor Emeritus John McCarthy coined the phrase in a 1955 proposal for a summer research grant, he defined artificial intelligence as "the science and engineering of making intelligent machines."[6] A basic distinction between AI and other computer-generated information, such as that present in common forms of electronic evidence, is AI's capacity to perceive knowledge, analyze huge volumes of data, generate predictions, and simulate intelligent behavior. In contrast, generative artificial intelligence (GAI) is a specific form of AI that has the capacity to generate text, images, or other types of media after considering, analyzing, and summarizing large amounts of data that is used to produce new data with similar characteristics.[7]

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[6] John McCarthy et al., *A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence*, (August 31, 1955), *reprinted in* 27 AI MAGAZINE 12 (2006). In an informative article, authors Grimm, Grossman and Cormack cited Professor McCarthy's work in setting forth their definition of artificial intelligence as the "hypothetical ability of a computer to match or exceed a human's performance in tasks requiring cognitive abilities, such as perception, language understanding and synthesis, reasoning, creativity, and emotion." Paul W. Grimm et al., *Artificial Intelligence as Evidence*, 19 NW. J. TECH. & INTELL. PROP. 9, 14 n.12 (2021).

[7] This simplified AI and GAI glossary is offered by Northwestern University to instructors:

> Artificial intelligence (AI)
> Artificial intelligence is an umbrella term used to describe a range of different fields, processes, models and tools.
>
> MachineLearning (ML)

B. Scope

The focus of the paper is on the use of AI or GAI evidence in court. In-court use includes cases in which AI or GAI is the subject matter of the litigation, cases in which AI or GAI evidence is offered as "real" evidence,[8] and cases in which AI or GAI evidence is offered as either an exhibit or an illustrative aid. [9] As is always the case, the purported use of the AI or GAI evidence determines the evidentiary issues.

The paper's focus on in-court use of AI or GAI evidence considers, but discusses only briefly, the many other uses of AI and GAI that impact the courts, counsel, parties, litigants, and the overall justice system.[10] Court systems and individual judges currently use AI and GAI to streamline administrative tasks and management functions.[11] In addition to using AI to manage

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> The process by which AI systems learn from data and improve their performance over time.
>
> Generative AI (GAI)
> An AI model that learns from training data and uses it to generate new content that resembles the original data.
>
> Large Language Models (LLMs)
> AI that is trained on large quantities of text in order to interpret prompts and generate human-like text-based outputs. ChatGPT, Bard, Bing and Claude are all examples of LLM applications.

"Artificial Intelligence at Northwestern: What Instructors Need to Know," https://ai.northwestern.edu/education/what-instructors-need-to-know.html#understanding-the-language (last visited June 10, 2024).

[8] For purposes of this paper, "real" evidence refers to tangible evidence that has a direct connection or relationship to the facts or events that are at issue in the trial. Examples would include the medical instrument that was left in the surgical site, the product that malfunctioned, or the photograph of an unaltered, damaged vehicle.

[9] For purposes of this paper, the term "exhibit" is used to refer to tangible items that are authenticated, admitted, and used during trial and that are sent with the jury during deliberations. Th phrase "illustrative aids," conversely, refers to any visual, graphic, or auditory aid that may be used to explain or illustrate a witness's testimony, but that is not allowed into the jury room. Examples would include charts, diagrams, drawings, some photographs, maps, models, and animations. The phrase "illustrative aid" is used instead of demonstrative evidence to emphasize that the illustrative aid is not actually *evidence*, in the sense that it does not provide a basis for finding facts, but only an illustration of a witness's testimony; moreover, the phrase is used to differentiate between illustrative aids and demonstrations that occur in the courtroom and may be used as evidence. The phrase is also the one used in new Federal Rule of Evidence 107. Fed. R. Evid. 107 (effective Dec. 1, 2024).

[10] These topics are discussed widely in other literature and to the extent they are relevant, were considered by the author, but are beyond the scope of this paper.

[11] The Joint Technology Committee (JTC) established by the Conference of State Court Administrators, the National Association for Court Management and the National Center for State Courts, in its March 2024 JTC Resource Bulletin, "Introduction to AI for Courts," reports numerous examples of using "AI to

dockets and complex trials, some judges use AI and GAI to conduct research, organize voluminous materials, and to initiate drafting of orders and opinions,[12] while others may allow their clerks to do so with supervision.[13]

Courts may also be influenced, both knowingly and unknowingly, by the use of AI and GAI by those whose job it is to make recommendations to the court on important legal matters. For example, components of the criminal legal system use AI and GAI for predictive purposes, making recommendations concerning pretrial release[14] and sentencing.[15]

Indigent and pro se litigants have been aided, in some jurisdictions,[16] by the use of chatbots available on court websites to help individuals create documents, complete forms, file

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handle repetitive processes like auto-docketing and to deliver higher quality, more efficient service to the public through chatbots. Court-specific examples include efiling/auto-docketing, access to justice chatbots, courthouse wayfinding, biometric identification, online dispute resolution, etc." *Introduction to AI for Courts*, NAT'L CTR. FOR STATE COURTS viii (Mar. 5, 2024), https://www.ncsc.org/__data/assets/pdf_file/0027/98910/JTC-AI-paper-update-3.5.24.pdf.

[12] The National Center for State Courts reported in March 2024 that at least two states had issued ethics opinions regarding judges' use of AI to draft opinions and orders. *See* Michigan Pro. Ethics Comm., Advisory Opinion JI-155 (2023), https://perma.cc/J7CA-LHYW (last visited June 24, 2024) (concluding that "[j]udicial officers have an ethical obligation to understand technology, including artificial intelligence, and take reasonable steps to ensure that AI tools on which their judgment will be based are used properly and that the AI tools are utilized within the confines of the law and court rules"); West Virginia Jud. Investigation Comm'n, West Virginia Advisory Opinion 2023-22 (2023), https://www.courtswv.gov/sites/default/pubfilesmnt/2023-11/JIC%20Advisory%20Opinion%202023-22_Redacted.pdf (last visited June 24, 2024) (concluding that a judge may use AI for research purposes, but not to decide the final outcome of a case and that "the use of AI in drafting opinions and orders should be done with extreme caution").

[13] ABA Model Code of Jud. Cond. 2.2(A) (concerning judge's supervisory duties over judicial clerks); *see also* Maura R. Grossman et al., *The GPT Judge: Justice in a Generative AI World*, 23 DUKE L. & TECH. REV. 1, 24-25 (Oct. 2023) (suggesting that judge's use may violate ABA Model Code of Judicial Conduct 2.9(C), prohibiting judges from investigating facts).

[14] Alexandra Chouldechova and Kristian Lum, *The Present and Future of AI in Pre-Trial Risk Assessment Instruments*, NAT'L CTR. FOR STATE COURTS (June 2020), https://www.ncsc.org/__data/assets/pdf_file/0019/52516/AI-in-Pre-Trial-Risk-Assessment-Brief-June-2020-R2.pdf.

[15] The Wisconsin Supreme Court grappled with a challenge to a trial judge's use of a recommendation made based on a risk-assessment tool created by COMPAS, Correctional Offender Management Profiling for Alternative Sanctions, in *State v. Loomis.* State v. Loomis, 881 N.W.2d 749 (Wis. 2016) (upholding judge's partial reliance on system although defendant had no notice of its use and company claimed trade secret in its algorithms). COMPAS has been described as a "risk–need assessment system . . . that incorporates a range of theoretically relevant criminogenic factors and key factors emerging from meta-analytic studies of recidivism." *See* Tim Brennan et al., *Evaluating the Predictive Validity of the COMPAS Risk and Needs Assessment System*, 36 CRIM. JUST. & BEHAV. 21 (2009).

[16] Some recent examples include New Jersey's use of a chatbot to assist pro se litigants; Los Angeles County's use of "Gina," a legal assistant for pro se litigants; similarly, New Mexico's "Clara," for pro se assistance; and Arizona's creation of a chatbot for those seeking expungement of criminal convictions or facing eviction, all of which are discussed briefly by Sarah Martinson, *How Courts Can Use Generative AI*

small claim actions, and resolve disputes.[17] But so too have corporate interests and litigation funders, finding it easier to file numerous collection cases, sometimes with incorrect and incomplete information, or to cull voluminous dockets searching for cases in which to invest.

Lawyers are increasing their use of AI and GAI as well, utilizing technology-assisted review to perform a range of lawyering and paralegal tasks, including research, drafting, discovery, negotiating, and developing trial strategy.[18] While trial lawyers may employ AI to draft witness examinations, voir dire, opening statements and closing arguments, transactional lawyers use AI to review and draft contracts and peruse volumes of industry records.

As is true of a court system's use of technology-assisted docket management, the use of AI and GAI systems can increase a law firm's productivity and provide significant time-savings in managing massive discovery requests, reviewing documents, and analyzing records. Recognizing the benefit that these systems have in reducing lawyer time and thus client fees and expenses, the profession has endorsed many of the uses, while adopting a corresponding duty of technological competence to assure that lawyers understand and implement technologies that improve their services to the benefit of their clients.[19]

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to Help Pro Se Litigants, Law360 (May 3, 2024), https://www.law360.com/articles/1833092/how-courts-can-use-generative-ai-to-help-pro-se-litigants. *See also Court Chatbots*, NAT'L CTR. FOR STATE COURTS, (January 2024), https://www.ncsc.org/__data/assets/pdf_file/0032/97187/Court-Chatbots.pdf. The American Bar Association Center for Innovation has issued a report that lists states using online dispute resolution systems, including Michigan, Ohio, Arkansas, Texas, New Mexico, Arizona, Utah and California. ABA Center for Innovation, Online Dispute Resolution in the United States – Data Visualizations, (Sept. 2020), https://www.americanbar.org/content/dam/aba/administrative/center-for-innovation/odrvisualizationreport.pdf .

[17] An excellent early article on the use of AI to improve access to justice is James E. Cabral et al., *Using Technology to Enhance Access to Justice* 26 HARV. J.L. & TECH. 243 (2012).

[18] *See e.g.*, Harry Surden, *Artificial Intelligence and Law: An Overview*, 35 GA. ST. L. REV. 1305 (2019).

[19] ABA Model R. Prof. Conduct 1.0, comment 8. As of March 2024, forty states had adopted comments similar to that adopted by the ABA in 2012. Comment 8 provides:

> [8] To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.

In an advisory judicial ethics opinions addressing technological competence among judges, the Michigan State Bar Association concluded that "[j]udicial officers must maintain competence with advancing technology, including but not limited to artificial intelligence." *See supra* note 12.

But professional organizations, including the ABA[20] and many local and state bar associations,[21] have also recognized the dangers of the misuse of AI and GAI and of lawyers' technological incompetence, in general.[22] While lawyers may use AI and GAI to assist in research and drafting, relying totally on these systems is inappropriate and often actionable. For example, courts have cautioned and sanctioned lawyers who have failed to verify allegations and confirm authorities[23] and have issued standing orders that require lawyers to certify whether they have used AI or GAI in their court filings.[24]

The use of AI and GAI by others whose duties impact the court system is also rampant, but beyond the scope of this paper. For example, legislators may use AI and GAI to draft legislation.[25] Computer-drafted legislation may serve to undermine tenets of statutory construction, creating legal inconsistencies and unconstitutional legislation. For example, the AI or GAI system may disregard or misinterpret existing laws and regulations in the jurisdiction that may impact or conflict with the proposed legislation. When this happens, many of the statutory construction principles that courts have applied consistently to legislation may be called into question.[26]

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[20] *See* DR Distribs., LLC v. 21 Century Smoking, Inc., 513 F.Supp.3d 839 (W.D. Ill. 2021) (issuing serious sanctions against lawyer who relied exclusively on his client's representations and confessed to not being "computer literate," following a 256-page order frequently referred to as E-Discovery 101 for Lawyers).

[21] *See e.g.*, Florida Bar Board Review Committee on Professional Ethics, Op. 24-1 (Jan. 19, 2024), https://www.floridabar.org/etopinions/opinion-24-1/. *See also* R. Regul. FL. Bar 6-10.3; N.C. CLE Rule .1501 (17) (setting out definition for technological competence training); 22 NYCRR CLE § 1500.2 Definitions (h) (requiring training in cybersecurity, privacy, and data protection).

[22] A host of ethical issues may arise due to technical incompetency include breaches of the duty of confidentiality; the duty of candor; and the duty of fairness. *See* Model R. Prof. Cond. 1.6, 3.3, 3.4.

[23] The cautionary tale that generated a flurry of discussion was United States District Judge Castle's sanctions order in the case of Mata v. Avianca, Inc., 678 F. Supp.3d 443, 448 (S.D.N.Y. 2023) (concluding that plaintiff's lawyers "abandoned their responsibilities when they submitted non-existent judicial opinions with fake quotes and citations created by the artificial intelligence tool ChatGPT, then continued to stand by the fake opinions after judicial orders called their existence into question").

[24] Maura R. Grossman, Paul W. Grimm, & Daniel G. Brown, *Is disclosure and certification of the use of generative AI really necessary*, 107 JUDICATURE 69, 70-71, nn. 6, 8, 9 (2023) (setting out examples of standing orders restricting or requiring disclosure of use of AI or GAI issued by other courts after the *Mata* order was entered).

[25] *See, e.g.*, A*n Act drafted with the help of ChatGPT to regulate generative artificial intelligence models like ChatGPT* Mass. S. B. 31, 193rd Session (Jan. 20, 2023), https://malegislature.gov/Bills/193/SD1827.

[26] For example, courts presume that legislators are aware of existing law as well as judicial precedent interpreting that law, creating a presumption that prompts courts to construe new legislation to compliment and accommodate, rather than circumvent or conflict with, existing law. But that longstanding presumption loses its footing when new legislation is drafted by a machine that did not "know" or consider all of the existing laws and interpretations. Additionally, the courts' use of legislative intent to interpret ambiguous legislative provisions loses its force when the legislation is generated by a machine, not an elected official.

In addition to use by legislators, AI and GAI have become a chosen tool of agencies and departments whose work impacts the justice system, particularly in criminal legal matters.[27] Police departments use AI and GAI as a basis for allocating resources [28] as well as undertaking investigations[29] and undercover operations;[30] jail and prison officials use AI and GAI in classifying and housing inmates;[31] court services officers use AI and GAI in suggesting terms and conditions of pretrial release, predicting recidivism, and recommending sentences.[32] These uses of AI and GAI are among the most controversial and disturbing because of their potential to invade privacy interests,[33] rely on unfounded stereotypes,[34] and perpetuate false proxies.[35]

Part II: The Evidentiary Process in an Adversary System

The function of evidence in a dispute resolution system necessarily depends on the nature of the system. To provide context for the discussion of the use of AI and GAI evidence in American courts, this Part discusses briefly the important division of labor and responsibilities in an adversary justice system, emphasizing the distinct roles played by trial and appellate judges, juries, and trial counsel.

A. Backdrop: The Adversary System

Our adversary system presupposes that the judge, jury, and trial counsel will play separate and distinct roles in the trial process. Though elementary, it is this backdrop that forms the essence of an adversarial justice system in which counsel marshals evidence on behalf of the

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[27] For a general discussion of current and future uses of AI and GAI in policing, *see Law Enforcement Use of Artificial Intelligence and Directives in the 2023 Executive Order*, CONG. RSCH. SERV. (Dec. 15, 2023), https://crsreports.congress.gov/product/pdf/IN/IN12289#:~:text=and%20Directives%20in%20the%202023%20Executive%20Order,December%2015%2C%202023&text=AI%20involves%20a%20host%20of,capabilities%20and%20increase%20their%20efficiency.

[28] Elizabeth E. Joh, *Artificial Intelligence and Policing: First Questions*, 41 SEATTLE U. L. REV. 1139 (2017-2018).

[29] PREDICTIVE POLICING AND ARTIFICIAL INTELLIGENCE (John L. McDaniel and Ken Pease eds. 2021).

[30] *Id.*

[31] TIM BRENNAN, REVIEW OF RISK ASSESSMENT AND CLASSIFICATION IN PRISONS 33 (1st ed. 2020); Arthur Rizey and Caleb Watney, *Artificial Intelligence Can Make Our Jail System More Efficient, Equitable, and Just*, 23 TEX. REV. L. & POL. 181, 183 (2018-2019).

[32] *See* Brennan, *supra* note 15

[33] Cameron F. Kerry, *Protecting Privacy in an AI-Driven World,* BROOKINGS (Feb. 10, 2020), https://www.brookings.edu/articles/protecting-privacy-in-an-ai-driven-world/.

[34] Zara Abrams, *Addressing Equity and Ethics in Artificial Intelligence*, *in American Psychological Association*, 55 PSYCHOLOGY MONITOR 24 (2024).

[35] A false proxy or a discriminatory proxy is created when AI is trained using data sets that reflect long-standing biases and prejudices. *See generally* Miles Brundage et al., *The Malicious Use of Artificial Intelligence: Forecasting, Prevention, and Mitigation* (Feb. 2018), https://arxiv.org/pdf/1802.07228v1.

parties; trial judges neutrally and principally apply evidentiary standards to determine what evidence the jury may consider; juries, based on the trial judge's explanations of the law, determine and weigh the evidence to reach a fair and just verdict; and appellate courts, upon request, deferentially review the process and the result, correcting only legal errors that were raised and preserved by counsel and that affect a "substantial right of a party."[36]

1. Distinct Roles of Judge and Jury in the Evidentiary Process

The role of the jury in the adversary system is enshrined in the Seventh Amendment to the United States Constitution and most state constitutions. As the United States Supreme Court recently emphasized,

> [t]he jury is a central foundation of our justice system and our democracy. Whatever its imperfections in a particular case, the jury is a necessary check on governmental power. . . . Over the long course its judgments find acceptance in the community, an acceptance essential to respect for the rule of law. The jury is a tangible implementation of the principle that the law comes from the people.[37]

Thus, since our Nation's founding, the province of the jury as the exclusive arbiter of factual disputes has been jealously guarded from interference, often despite the resulting inefficiencies.[38]

While the jury ultimately determines the facts and the outcome, as noted, the trial judge serves as arbiter of issues raised by counsel[39] challenging the authenticity, admissibility, and proper use of evidence.[40] The judge determines only the admissibility of the evidence, in accordance with codified rules, and not that the jury must credit the evidence (that is, the weight of the evidence).

Thus, the trial judge's role may not be broadened so as to upset the jury's distinct role as the arbiter of fact; nor may the jury nullify the trial judge's obligation to assure that juries are guided by the applicable law.[41] These discrete roles of judge and jury are complicated at times by the simple fact that all evidence cannot be introduced simultaneously. In some circumstances,

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[36] *See e.g.*, Fed. R. Evid. 103(a).

[37] Pena-Rodriguez v. Colorado, 580 U.S. 206, 210 (2017) (analyzing restrictions on introducing evidence to impeach a juror's verdict set out in Federal Rule of Evidence 606(b)).

[38] *See* Apprendi v. New Jersey, 530 U.S. 466, 469 (2000) (determining that a jury must find any "factual determination authorizing an increase" in sentence based on proof beyond a reasonable doubt).

[39] This discussion, and most of this paper, presupposes that counsel has raised an objection to evidence. The failure to repeat the phrase "upon objection" throughout the paper is to avoid cumbersome repetition. The absence of the phrase does not suggest that a trial judge ordinarily has a *sua sponte* obligation to scrutinize evidence when no objection is raised.

[40] *See e.g.*, Fed. R. Evid. 104 (a) (requiring trial judge to determine "preliminary questions about whether a witness is qualified, a privilege exists, or evidence is admissible").

[41] *See supra* notes 37-38.

whether the judge should admit the evidence depends upon whether other evidence that has not yet been introduced actually exists.

By way of example, whether a judge in a defamation case should admit an exhibit that plaintiff claims is a defamatory internet posting created or published by defendant depends upon several issues that cannot be addressed concurrently, including: is the exhibit that plaintiff offers (1) a posting that defendant created or (2) published; does the posting include (3) defamatory content; or is it (4) otherwise actionable? In this situation, the relevance, and therefore the admissibility of the exhibit plaintiff offers is "conditioned upon" plaintiff demonstrating that defendant created or published the posting shown in the exhibit. In these circumstances, under the doctrine of conditional relevance, the trial judge determines whether sufficient evidence exists from which a reasonable factfinder could find that defendant created or published the posting.[42] If the judge finds sufficient evidence to admit the exhibit, the jury will be allowed to view the exhibit, but the final decision of liability will be left to the jury and conditioned upon the jury finding by a preponderance of the evidence that defendant created or published the posting and that it included defamatory content.

The discrete roles of judge and jury are preserved by this aspect of the evidentiary process: the judge's decision to admit evidence does not bind the jury to accept or believe the evidence. "[T]he functioning of the jury as a trier of fact would be greatly restricted and, in some cases, virtually destroyed" if this division of responsibilities was not honored. [43]

2. Individual Responsibilities in the Evidentiary Process

In addition to satisfying different roles in the adversary system, a properly functioning adversary system anticipates and largely depends upon the jury, counsel, trial, and appellate judges properly exercising their designated responsibilities. The jury's responsibility with regard to evidence, based on the trial judge's proper instructions, is to review and weigh the admitted evidence, deliberate, and reach a fair and impartial verdict based on all of the evidence. The evidentiary responsibilities of the trial judge and counsel are not only more specific and exacting

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[42] *See e.g.*, Fed. R. Evid. 104(b).

[43] As the Advisory Committee Comments to Federal Rule 104(b) explains:

> The judge makes a preliminary determination whether the foundation evidence is sufficient to support a finding of fulfillment of the condition. If so, the item is admitted. If after all the evidence on the issue is in, pro and con, the jury could reasonably conclude that fulfillment of the condition is not established, the issue is for them. If the evidence is not such as to allow a finding, the judge withdraws the matter from their consideration.

In order to decide whether and when to allow the jury to view the evidence, the trial judge must consider the possibility that counsel may fail to offer the connecting evidence that is necessary to satisfy the conditional relevance requirement. Otherwise, the judge may be faced with the prospect of granting a mistrial to prevent the opposing party from being unfairly prejudiced by the view of the now-stricken evidence.

than the jury's, they also are essential to appellate courts being able to perform their proper role in the adversary system.[44]

The trial judge's responsibility is evident in many of the codified rules, but, generally, is only triggered when lawyers meet the evidentiary obligations that the rules place upon them.[45] Counsel is obligated to identify, specify, preserve, and perfect evidentiary issues. What counsel says and does defines what, if any, action is required of the trial judge.[46]

B. Implementing the Proper Evidentiary Process

Thus, to ensure the proper operation of the evidentiary process in an adversary system, in most situations, except those that are manifestly obvious,[47] the trial should follow a simple, systematic process, when evidentiary objections are raised. When counsel timely objects to the introduction of evidence, the trial judge should require counsel to specify the legal basis for the objection. Thereafter, if there are various purposes for which the evidence might be offered, before ruling, the trial judge should ask the proponent to identify the purpose for which the evidence is offered. This straightforward approach promotes fairness and efficiency in the evidentiary process by respecting the distinctive roles of counsel and the trial judge at the heart of the adversary system; aiding the trial judge in focusing rulings on the precise objection raised

[44] These simple examples illustrate the point. When counsel seeks appellate relief based on issues that were not raised first in the trial court, the appellate court will deny relief except in the most extraordinary circumstances. *See e.g.*, Fed. R. Evid. 103(a) (providing that error may be predicated only on preserved issues when error has "affected a substantial right of the party"); 103(f) providing that an appellate court may take "notice of error affecting a substantial right, even if the claim of error was not properly preserved"). Similarly, when a trial judge fails to make findings of fact that are essential to an evidentiary ruling, appellate courts will be unable to review the ruling under an abuse of discretion standard that would otherwise apply to the trial court's factual findings.

[45] *See e.g.*, Fed. R. Evid. 103(a)(1) (outlining how and when counsel must object to preserve evidentiary error regarding the admission of evidence); Fed. R. Evid. 103(a)(2) (requiring that counsel make an offer of proof to perfect error based on a trial judge's exclusion of evidence); Fed. R. Civ. P. 31 - 37 (pertaining to evidentiary issues that apply when discovery responses are offered in evidence).

[46] *Id.*

[47] Federal Rule of Evidence 103 dispenses with technical preservation requirements under circumstances in which "the ground for an objection . . . was apparent from the context," Fed. R. Evid. 103(a)(2), and also alters the requirement for offers of proof to preserve issues related to excluded evidence whenever "the substance was apparent from the context." Fed. R. Evid. 103(b).

in light of the purported use of the evidence;[48] and creating a clear record, deserving of deferential appellate review.[49]

Part III: Drawing From Existing Guidance: Common-Law Principles and Rules of Evidence

A. Guidance from Common-Law Principles Embraced by Evidence Rules

The development of evidence principles at common law and the codification of evidence rules by the states serve to promote uniformity in an adversary system of justice in which "the need to develop all relevant facts . . . is both fundamental and comprehensive. The very integrity of the judicial system and public confidence in the system depend on full disclosure of all the facts, within the framework of the rules of evidence."[50] Thus, codified rules of evidence, based on longstanding common-law evidentiary principles, promote fair trials, which in turn foster trust in and respect for the adversary system.[51]

To empower the jury to reach a fair verdict based on the facts of the case,[52] evidence rules endorse a broad approach to admissibility,[53] but the tenet of broad admissibility is tempered by the equally universal principle that courts must act efficiently, moving matters along. in order to ensure that the legal system remains viable as a means of resolving disputes.

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[48] Given the nature of rule application, which at times is not unlike fitting together the pieces of a jigsaw puzzle, inexperienced trial judges should resist becoming overly involved in the evidentiary process, unwittingly striving to make the pieces fit. A trial judge who carefully follows the approach described in the paper will avoid overstepping the judicial function; similarly, by requiring counsel to adhere strictly to Rule 103's requirements, the trial judge will rule on the issues raised, creating a clear record for appellate review.

[49] When the record in the trial court clearly identifies the objection raised, the purported use of the evidence, and the factual findings and legal conclusions that underlie the trial judge's ruling, the appellate court is required to apply a deferential standard of review, presuming the correctness of the trial court's factual findings, and reversing the case only upon finding a clear abuse of discretion that impacted a substantial right of a party. *See e.g.*, Fed. R. Evid. 103(a).

[50] U.S. v. Nixon, 418 U.S. 683, 709 (1974).

[51] *See* U.S. v. Augenblick, 393 U.S. 348 (1969).

[52] "Maintenance of the jury as a fact-finding body is of such importance and occupies so firm a place in our history and jurisprudence that any seeming curtailment of the right to a jury trial should be scrutinized with the utmost care." Dimick v. Schiedt, 293 U.S. 474, 486 (1935).

[53] Prior to codification of the rules, the United States Supreme Court emphasized the importance of allowing the jury broad access to evidence. *See* Home Ins. v. Weide, 78 U.S. 438, 440-41 (1870) (stating that "[i]t is well settled that if the evidence offered conduces in any reasonable degree to establish the probability or improbability of the fact in controversy, it should go to the jury. It would be a narrow rule, and not conducive to the ends of justice, to exclude it . . . . And if they should happen to reach a wrong conclusion, the court has in its own hands the mode and measure of redress").

B. Guidance from Evidence Rules that Accommodate Competing Interests

Many rules of evidence attempt to accommodate the dual interests in fairness and efficiency. A simple example is the rules of evidence that allow evidence relating to the credibility of witnesses. Because evidence is often inconsistent or contradictory, jurors must choose between various versions of the facts. In order for them to do so, it is only fair that they hear information related to the credibility of testifying witnesses. But introducing evidence that impacts credibility can be time-consuming and can divert the focus of the trial to auxiliary issues. Thus, to accommodate the jury's need for the information with the opposing need to complete the trial, the rules of evidence addressing impeachment specifically limit the extent and type of impeachment evidence[54] while requiring judges to exercise discretion to determine the parameters of other impeachment evidence.[55]

Similarly, most courts allow a summary, chart, or calculation to be offered to "prove the content[56] of voluminous writings, recordings, or photographs that cannot be conveniently examined in court."[57] The efficiency accomplished by allowing proof of content by summary is counter-balanced by the need to assure fairness to the other party, which most states address

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[54] *See e.g.*, Fed. R. Evid. 608(a) (limiting evidence regarding a witness's character for truthfulness to opinion or reputation evidence and allowing the introduction of evidence of truthfulness only after the witness's credibility has been attacked); Fed. R. 609(a)–(d) (limiting the types of criminal convictions that can be used to impeach a witness based on the nature of the crime, the date of the conviction, and other factors).

[55] *See e.g.*, Fed. R. Evid. 608(b) (giving the trial judge discretion to allow inquiry on cross-examination into specific instances of a witness's truthfulness or untruthfulness); Fed. R. 609 (a)(1)(A), (B) (requiring judge to apply specific balancing tests to determine the admissibility of criminal convictions depending on the nature of the crime and the witness who is being impeached).

[56] *See e.g.*, Fed. R. Evid. 1006. When the requirements of Rule 1006 are met, the summary, chart, or calculation proves the "content" and thus is substantive evidence, not merely an illustrative aid. U.S. *v.* Bray, 139 F.3d 1104, 1109-10 (6th Cir. 1998) (noting that under the Rule, "the underlying documents need not themselves be *in* evidence, however, it is plain that a summary admitted under Rule 1006 is itself *the* evidence that the trier of fact should consider") (citing 2 MCCORMICK ON EVIDENCE § 233 68 (John W. Strong ed., 4th ed.1992) (emphasis added); 6 WEINSTEIN'S FEDERAL EVIDENCE § 1006.04 1006-7 (Joseph M. McLaughlin ed., 2d ed.1997)). The December 1, 2024, amendment to Rule 1006 credits the *Bray* approach used by the United States Circuit Court of Appeals for the Sixth Circuit. *See* Committee on Rules of Practice and Procedure, Federal Judicial Conference, Proposed Amendments to the Federal Rules of Evidence, Fed. R. Evid. 1006 (effective Dec. 1, 2024), https://www.supremecourt.gov/orders/courtorders/frev24_9o6b.pdf (providing "court may admit *as evidence* a summary, chart, or calculation offered to prove the content of voluminous *admissible* writings, recordings, or photographs that cannot be conveniently examined in court, *whether or not they have been introduced into evidence*") (emphasis added); Fed. R. Evid. 107, 107(d) (effective Dec. 1, 2024) (providing new Rule 107 with standards for admitting illustrative aids and differentiating in Rule 107(d) between substantive Rule 1006 summaries and Rule 107 illustrative aids.).

[57] Undoubtedly, Rule 1006's reference (and that of its state counterparts) to "writings, recordings, or photographs" applies to many kinds of AI and GAI evidence. *See e.g.*, Fed. R. Evid. 1001 (a)-(c) (defining writing, recordings, and photographs broadly for purposes of the rules in Article 1000). The importance of strict adherence to the substantive and procedural restrictions on summaries is even more critical when the summary offered is the product of AI or GAI data.

by imposing notice and disclosure requirements.[58] Since a properly admitted summary may be considered substantive evidence that can be used to find facts, most rules require strict application of both substantive and procedural requirements.

In other contexts, the admissibility of evidence is limited by the rules to effect a particular purpose that the drafters have determined to be worthy of advancement.[59] Thus, the special relevance rules, with the exception of Rules 413-15 found in the Federal Rules of Evidence but only adopted by a minority of the states, exclude evidence that meets the broad definition of relevance set out in Rule 401 because, on balance, exclusion of the evidence for certain purposes is deemed essential to fairness.[60] To effectuate these rules, the judge determines preliminarily whether the evidence is being offered for a permissible purpose and if so, upon request, instructs the jury to limit their consideration of the evidence to that permissible purpose.[61] As will be suggested, the special relevance rule that is most significant to the use of AI and GAI evidence in court is Rule 403, the "scales of justice rule," which gives the trial judge discretion to exclude evidence that is relevant, when the probative value is "substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence."[62] Rule 403 acts as a true fairness rule requiring the

[58] To admit summary evidence under Rule 1006, the proponent "must make the originals or duplicates available for examination or copying, or both, . . . at a reasonable time and place. And the court may order the proponent to produce them in court." Fed. R. Evid. 1006; *see also* Fed. R. Evid. 1006(b) (setting out amendment effective Dec. 1, 2024). Moreover, the underlying writings, recordings, or photographs must be independently admissible. Rule 1006 does not provide an avenue for admissibility of otherwise-inadmissible evidence.

[59] A simple example is Rule 407's exclusion of subsequent remedial measures for the purposes of proving negligence, culpable conduct, product defects, or the need for warnings or instructions. Fed. R. Evid. 407. While a party may not offer evidence of measures taken after the event to remedy or improve a product or situation, the evidence may be offered for other relevant purposes, such as proof of ownership. When evidence offered under Rule 407 or its special relevance counterparts is challenged, judges must decide preliminarily whether the evidence is being offered for a permissible purpose and if so, upon request, must instruct the jury to limit their consideration of the evidence to that permissible purpose.

[60] *See e.g.*, Fed. R. Evid. 403, 407-12. The structure of the relevance rules in Article IV of the Federal Rules is identical to the structure in most state's evidence rules, although a few of the specific rules of relevance differ. After defining relevance broadly and providing that relevant evidence is generally admissible, "special relevance" rules direct that certain relevant evidence is not admissible when offered for impermissible purposes, some of which are specified in the rules with others fleshed out in case decisions. Moreover, all states have Rule 403 counterparts, either as part of their codifications or case law. The outlier from this consistent approach are Federal Rules 413, 414, and 415. Rather than providing that otherwise admissible evidence may be excluded based on special concerns, these rules uniquely provide that judges "may admit evidence" that might otherwise be inadmissible or excluded under Rules 403 and 404. Fed. R. Evid. 413, 414, 415.

[61] *See e.g.*, Fed. R. Evid. 104(a) (providing for judges to determine preliminary questions related to admissibility); Fed. R. Evid 105 (requiring the judge "on timely request" to "restrict the evidence to its proper scope and instruct the jury accordingly").

[62] *See e.g.*, Fed. R. Evid. 403.

judge to weigh the probative contribution of the evidence against the dangers that introducing the evidence will present.

C. Guidance from Evidence Rules That Promote Integrity

1. Separate Authentication and Admissibility Requirements for Verbal and Tangible Evidence

In addition to Rule 403's prominence in promoting fairness, the rules requiring that evidence be authenticated before use promote integrity in verdicts by ensuring that the jury considers only evidence that has first scaled a threshold standard of authenticity. Although the threshold authentication standard is relatively low,[63] establishing authenticity is nonetheless critical to establishing the integrity of evidence, which, in turn, is essential to the trial judge's determination that the jury may hear, see, and rely on the evidence. If the proponent fails to authenticate evidence, the evidence lacks sufficient integrity to be considered by the jury. Even if the authentication threshold is met, the evidence may be excluded based on various admissibility concerns set out in other rules.

a. Verbal Evidence

Verbal evidence is authenticated in most jurisdictions by a personal knowledge requirement providing, for example, that before a witness may testify as to facts, "evidence is introduced sufficient to support a finding that the witness has personal knowledge of the matter."[64] Even after the authentication requirement of personal knowledge is scaled, a witness's testimony may be excluded based on the admissibility requirements of the relevance, hearsay, privilege, improper opinion, and original writing rules.

b. Tangible Evidence

When counsel offers to introduce a tangible item, rather than verbal evidence, the court must first determine whether the tangible item is being offered as evidence or as an illustrative aid. The distinction is critically important. If counsel is offering the tangible item as evidence, the item must be both authenticated and admissible.

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[63] The Federal Rules of Evidence gather the authentication rules in Article IX, setting forth a list of self-authenticating documents in Rules 901(b)(1)-(14); a non-exhaustive list of authentication illustrations in Rule 901(b)(1)-(10); and the threshold standard for authentication in Rule 901(a) (establishing that to authenticate evidence the proponent must offer "evidence sufficient to support a finding that the item is what the proponent claims it is"). Most states follow this framework in their authentication provisions.

[64] *See e.g.*, Fed. R. Evid. 602 (establishing the personal knowledge authentication requirement for lay witness testimony); *but see* Fed. R. Evid. 703 (establishing that expert witness testimony may be based on facts or data that the expert has observed or been made aware of).

c. Distinguishing Between Tangible Evidence and Tangible Items Offered as Illustrative Aids

If counsel is not offering the tangible item as evidence, but rather as an illustrative aid, to help a witness explain testimony, the foundational requirements arguably are and rightfully should be different. Although properly authenticated and admitted tangible evidence can support a jury's factual determinations, tangible items used as illustrative aids cannot.

2. Authenticating and Admitting Tangible Evidence

To offer a tangible item as evidence, counsel must authenticate the item by "produc[ing] evidence sufficient to support a finding that the item is what the proponent *claims* it is."[65] Thus, the necessary foundation depends completely on the purpose for which the evidence is offered. Even after the item's authenticity is established, the proponent of tangible evidence must also scale the many admissibility hurdles set out in the relevance, hearsay, opinion, original writing, and other evidence rules.

Consider this simple example using a common type of tangible, electronic evidence, a text message that is being offered as evidence to establish some relevant fact in the case. What counsel must do to authenticate the text message depends upon the purpose for which the message is being offered. If the purpose for offering the text message is to establish that a party received the text message (assuming that the fact of receipt is itself relevant in the case), then the party, as a "person with knowledge" may authenticate the text simply by testifying that it is the text message that was received. But, if the relevance of the text message depends upon who *sent* the text message, counsel must offer evidence "sufficient to support a finding" that the particular individual sent the message, not that the party received the message.[66] Even after counsel authenticates the text message, opposing counsel may challenge the admission of the text message on various admissibility grounds based on the content of the email and the status of the author.[67]

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[65] *See e.g.*, Fed. R. Evid. 901(a) (emphasis added).

[66] The authentication of the text message as being sent by a specific individual might be accomplished by another person with knowledge (i.e., the author or one who witnessed the texting) (*see e.g.*, Fed. R. Evid. 901(b)(1)); by "appearance, contents, substance, internal patterns, or other distinctive characteristics of the item, taken together with all the circumstances" (*see e.g.,* Fed. R. Evid. 901(b)(4)) (referred to as circumstantial authentication); or by a qualified witness who can validate the system used to create the text and its general accuracy (*see e.g.*, Fed. R. Evid. 901(b)(9)) (referred to as system or process authentication). Lawyers who engage in pre-discovery evidentiary planning can also authenticate evidence during depositions or through various other discovery mechanisms including interrogatories, requests to produce, and requests to admit.

[67] For example, a text message that is authenticated as being sent by a non-party, nonetheless may be inadmissible on hearsay grounds, while a text message that is authenticated as being sent by a party, and thus not hearsay, may, nonetheless, be excluded because the content expresses an opinion that requires scientific or technical knowledge.

3. Using Illustrative Aids at Trial

In contrast, counsel may seek to use a tangible item as an illustrative aid to help a witness explain testimony.[68] In most, but not all state courts, illustrative aids are not considered "evidence" and may not be relied upon by the jury to establish proof of a contested fact. Rather, an illustrative aid may be used only to aid a witness in explaining testimony. While this distinction has led most courts to not apply authentication requirements to illustrative aids, generally, before an illustrative aid may be used, counsel must establish that the aid is relevant and helpful.[69] To be relevant, most courts require counsel to establish that the aid is a fair and accurate portrayal or depiction; to be helpful, the aid must assist the witness in explaining an element of his or her testimony.[70] Thus, although not strictly governed by the authentication rules, trial judges assure the integrity of illustrative aids by requiring that counsel meet a threshold standard of reliability and helpfulness before the aid can be used.[71]

In this way, existing rules of evidence, including the integrity-based authentication rules; the admissibility-based relevance, opinion, and hearsay rules; and fairness-based Rules such as Rules 403 and 611; are intertwined and, when properly applied, provide sufficient guidance for vetting the introduction of evidence and the use of illustrative aids. In the next Part, I will discuss my contention that those same rules can be applied to AI and GAI evidence and the use of AI and GAI-created illustrative aids, without interfering with the purposes of the rules of evidence or undermining the integrity of the adversary system.

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[68] It is also within the court's discretion to allow counsel to use illustrative aids to outline and explain their opening statements or closing arguments, but that use is not discussed in this paper.

[69] Effective December 1, 2024, the Federal Rules of Evidence will include Rule 107 that specifically outlines the procedure to be followed when illustrative aids are offered. In the absence of a specific rule, courts have relied either upon their inherent authority to control the proceedings or upon their express authority under rules similar to Fed. R. Evid. 611 (a) to require a foundation for the use of an illustrative aid. *See e.g.*, Fed. R. Evid. 611(a) (requiring judges to "exercise reasonable control over the mode and order of examining witnesses and presenting evidence so as to (1) make those procedures effective for determining the truth [and] (2) avoid wasting time"). New Federal Rule of Evidence 107 incorporates the foundational requirements that the illustrative aid "help the trier of fact understand the evidence or argument . . . ." Fed. R. Evid. 107(a) (effective Dec. 1, 2024).

[70] This foundation does not necessarily require that a diagram used as an illustrative aid be drawn to scale or that a photograph of the scene perfectly replicate the conditions at the time of an event, provided that the illustrative aid is fair and accurately portrays what it purports to portray and helps illustrate the testimony. For example, a photograph taken in the spring may not "accurately" represent the scene in the winter. Trial judges have traditionally handled these types of objections under Rule 403. Notably, proposed Rule 107 offers its own balancing test, allowing the use of the demonstrative aid if it "help[s] the trier of fact understand the evidence or argument if the *aid's utility in assisting comprehension* is not substantially outweighed by the danger of unfair prejudice, confusing the issues, misleading the jury, undue delay, or wasting time." Fed. R. Evid. 107(a) (effective Dec. 1, 2024) (emphasis added).

[71] While illustrative aids are not evidence, most judges, nonetheless, exercise discretion in disallowing their use when the use might unfairly prejudice, unduly delay, or otherwise negatively affect the trial.

Part IV: Applying Evidentiary Rules and Principles to AI and GAI Evidence and Illustrative Aids

A trial judge's role is particularly important when the evidentiary issue involves AI or GAI. Although the nature of the evidence or aid may be unique, the trial judge's approach is informed by existing rules and processes.

A. Authenticating AI and GAI Evidence

When the authentication of AI or GAI evidence is challenged, the judge must inquire as to the purpose for which the evidence is being offered. Assume, as set out in Section II(A)(1) above, that plaintiff has filed a defamation suit, but this time the suit is based on a video, posted on the web, preserved by plaintiff, and purportedly capturing plaintiff engaging in unlawful conduct at a public rally. Plaintiff contends that the item is a deep fake, created by AI.[72] Authenticating the video for that purpose will be fairly easy, requiring only sufficient evidence to support a finding that it is the very video that plaintiff claims was defamatory. But the video is likely only relevant if it was created or posted by defendant.[73] Establishing evidence sufficient to support a finding that defendant is responsible for creating or posting the video could be far more difficult.[74]

The very nature of AI or GAI evidence may render the fallback authentication method – testimony by a witness with knowledge – obsolete.[75] In limited factual circumstances, the proponent may be able to rely on Rule 901(b)(4), to authenticate the evidence relying on the content of the video, "taken together with all the circumstances,"[76] but reliance on circumstantial evidence to authenticate will do little to uncover sophisticated deep fakes. Thus, when offering AI and GAI evidence, the proponent may be left to authenticate the evidence under Rule 901(b)(9), which requires "[e]vidence describing a process or system and showing that it produces an accurate result."[77] Most scholars agree that only a qualified expert witness who has

[72] The phrase "deep fake" refers to fake multi-media content that is created by software that uses AI. The deep fake may alter or create voices, faces, or human interactions. Bobby Chesney & Danielle Citron, Deep Fakes: *A Looming Challenge for Privacy, Democracy, and National Security*, 107 CALIF. L. REV. 1753, 1758-60 (2019).

[73] Establishing that the video was the one actually observed by plaintiff might be authenticated through the content (*see e.g.*, Fed. R. Evid. 901(b)(4)); through testimony explaining and validating the system or process that created the video (*see e.g.*, Fed. R. Evid. 901(b)(9)); or through some other means.

[74] The simplest way to connect the video to defendant would be through the discovery process. Failing to do this, counsel might be required to use digital tools such as electronic seals, watermarks, and identifying fingerprints. *See generally* Riana Pfefferkorn, "Deepfakes in the Courtroom," 29 PUBLIC INTEREST L, J. 245, 259 (2020) (discussing verified media capture technology and other methods of verifying trustworthiness in recordings).

[75] *See supra* Part III (C)(1)(a).

[76] *See e.g.*, Fed. R. Evid. 901(b)(4).

[77] *See e.g.*, Fed. R. Evid. 901(b)(9).

scientific, technical, or specialized knowledge[78] is competent to opine that a process or system "produces an accurate result."[79]

B. Admitting AI and GAI Evidence

Clearly, a trial court's rulings on an evidentiary objection is dependent on context. Evidence admitted for one purpose may be inadmissible for another, just as evidence offered against one party may unfairly prejudice another. Thus, to provide context, this Section identifies common civil cases in which counsel may offer AI or GAI evidence, distinguishes between the various purposes for which the evidence may be offered, and outlines, accordingly, the applicable evidence rules.

C. Purpose or Use of the AI or GAI Evidence: Real Evidence or Illustrative Aid[80]

Counsel's stated purpose for introducing AI or GAI evidence will establish what rules apply and how the jury may use the evidence.[81] Accordingly, offers of and objections to the use of AI and GAI evidence as substantive evidence or as an illustrative aid are uniquely amenable to a trial judge's use of the process outlined in Part II (B), creating a record that clearly identifies the objection, the purported use of the evidence, and the ruling.

Initially, as noted, the applicable rules for all tangible items, including any AI or GAI item, depend on whether the item is "real evidence,"[82] directly connected to the case and offered to prove a fact or facts in issue or as an illustrative aid[83] used to explain or demonstrate facts or

[78] Thus, the witness would have to be qualified either by skill, knowledge, education, experience, or training as required by most state rules. Opinion rules would create other difficulties, depending on the jurisdiction's expert opinion requirements. Some examples that would arise in states following the federal rule model would include establishing the validity and reliability of the principles and methods used and the existence of trustworthy underlying facts and data.

[79] *See e.g.*, Fed. R. Evid. 901(b)(9).

[80] *See* note 9 *supra* explaining that the amendments to the Federal Rules of Evidence that go into effect on December 1, 2024, purposefully use the phrase "illustrative aids" rather than demonstrative evidence. Fed. R. Evid. 107 (effective Dec. 1, 2024).

[81] *See* Fed. R. Evid. 107 (effective Dec. 1, 2024, establishing use of illustrative aids); Fed. R. Evid. 1006(b) (effective Dec. 1, 2024, describing substantive use of summaries introduced under Rule 1006(a)).

[82] Black's Law Dictionary defines "real evidence" as "[p]hysical evidence (such as clothing or a knife wound) that itself plays a direct part in the incident in question." BLACK'S LAW DICTIONARY (11th ed. 2019).

[83] This paper uses the phrase "illustrative aid" rather than "demonstrative evidence" because in most jurisdictions, tangible items used to illustrate testimony serve only illustrative purposes. Thus, the phrase "demonstrative evidence" is actually a misnomer in many jurisdictions because the item does not have evidentiary value. It is noted that Black's Law Dictionary defines the two interchangeably, stating that "demonstrative evidence" is "[p]hysical evidence that one can see and inspect (i.e. an explanatory aid, such as a chart, map, and some computer simulations) and that, while of probative value and usu[ally] offered to clarify testimony, [the demonstrative evidence] does not play a direct part in the incident in question." *Id.*

testimony but not directly connected to the case.[84] While in some instances, the two may overlap and be used interchangeably, for this discussion, the delineation is not only functional but helpful.

D. Civil Cases in which AI or GAI Evidence is Real Evidence in the Case

Two common examples of civil cases in which AI or GAI evidence is offered as real evidence at trial include (1) cases in which the subject matter of the litigation is AI or GAI, including those cases challenging decisions rendered by the use of AI and GAI and (2) cases in which another's proprietary information has been used without authorization to create AI or GAI.

1. Cases in which AI or GAI-Created Evidence is the Subject Matter of the Litigation, but Claim is not Dependent on Proof of Specific AI or GAI Process Used

In this first category of cases, later referenced as IV(B)(2)(a) cases, the AI or GAI evidence is the actual subject matter of the litigation and, thus, is directly at issue in the case. These cases include civil actions instituted against creators of fake media that is passed off as genuine, in which the AI or GAI image is real evidence in the case. Examples include fake or imposter multimedia, musical works, books, articles, and AI and GAI-created videos and photographs. In these cases, a party may seek damages in an invasion of privacy, defamation, or related action based on a claim that defendant is responsible for creating or publishing a fake item that was created by AI or GAI. The fake item may be a document, video, audio, or image. The item itself is real evidence in the case that a party would offer to establish the very gravamen of the claim or defense. For example, if a musician claimed that defendant used AI to capture her voice and then inserted it into a music video that also faked her appearance, the alleged fake music video would be real evidence, directly connected to the case. While the way AI was used may be relevant, it is not critical to establishing the civil cause of action in these types of cases.

A second category of cases in which the AI or GAI at issue is also real evidence, but in which the actual AI or GAI process may be less relevant than what the process produced, are those cases in which an individual's proprietary information is used, without permission or compensation, to train AI or GAI, which then creates new texts, images or media. A recent example of this category of cases is the case of *Anderson v. Stability AI Ltd*., a copyright

[84] Some courts use the misnomer "demonstrative aid" to refer to documents, charts, diagrams and the like that are used to illustrate a witness's testimony; other courts refer to these aids as "illustrative," and still others refer to them as "chalks" or "pedagogical devices." The United States Court of Appeals for the Sixth Circuit, using the latter phrase, has defined a "pedagogical device" as "an illustrative aid such as information presented on a chalkboard, flip chart, or drawing, and the like, that (1) is used to summarize or illustrate evidence, such as documents, recordings, or trial testimony, that has been admitted in evidence; (2) is itself not admitted into evidence; and (3) may reflect to some extent, through captions or other organizational devices or descriptions, the inferences and conclusions drawn from the underlying evidence by the summary's proponent." Bray, 139 F.3d at 1111 (noting that trial judge has discretion as provided by Fed. R. Evid. 611 to manage the use of such aids).

infringement action, currently pending in the United States District Court for the Northern District of California.[85] In *Anderson*, cartoonists and illustrators claimed that an AI developer unjustly benefitted from the unauthorized use of their works by incorporating their work into data sets used to train a machine-learning model.[86] They seek damages and declaratory relief but face the challenge of showing that defendant developer actually used their work.

2. Cases Challenging Decisions Made by AI or GAI in which the Claim may Require Proof of Specific AI or GAI Process Used

Other cases in which the AI or GAI evidence is real evidence are those cases brought by an individual who claims that an organizational decision, based on the use of AI or GAI, harmed the individual, giving rise to a civil cause of action. Examples include cases brought by individuals whose vested government benefits have been wrongfully or unfairly terminated as a result of faulty AI or GAI determinations.[87]

In these cases, later referenced as IV(B)(2)(b) cases, the aggrieved parties may claim that a protected due process property interest in certain benefits was terminated by a governmental agency based on unreliable (or, sometimes, biased) algorithmic decision-making.[88] These procedural due process claims center on whether the party's property interest was vested and whether the government action was fundamentally fair. Because fundamental fairness generally requires notice, and an opportunity to be heard, a claimant may focus exclusively on those factors. But in order to establish also that the decision was not made by a neutral decision-maker,[89] claimants may be required to show that the government agency's decisions were based

[85] Andersen v. Stability AI Ltd., No. 23-cv-00201-WHO, 2023 WL 7132064 (N.D. Cal. Oct. 30, 2023).

[86] The United States District Court for the Northern District of California dismissed two of plaintiffs' claims entirely because of their failure to register their claimed copyrights. The court also dismissed some of the third plaintiff's claims and required substantial amendments, but allowed the infringement claims to stand despite defendants' argument that plaintiff could not identify which of her works were used. This ruling was influenced by the judge's factual finding that defendant Stability AI admittedly used over five billion images as its training data set.

[87] Ryan Calo & Danielle K. Citron, *The Automated Administrative State: A Crisis of Legitimacy*, 70 EMORY L.J. 797, 819 (2021) (stating that "[m]ounting evidence suggests that agencies are turning to systems in which they hold no expertise, and that foreclose discretion, individuation, and reason-giving almost entirely"); Chris Chambers Goodman, *AI, Can You Hear Me? Promoting Procedural Due Process in Government Use of Artificial Intelligence Technologies*, 28 RICH J. L. & TECH. 700 (2022) (discussing numerous examples of agencies eliminating benefits or determining ineligibility based on faulty predictive algorithms used to determine eligibility).

[88] In March 2024, the Office of Management and Budget (OMB) released Memorandum M-24-10 (Mar. 28, 2024), https://www.whitehouse.gov/wp-content/uploads/2024/03/M-24-10-Advancing-Governance-Innovation-and-Risk-Management-for-Agency-Use-of-Artificial-Intelligence.pdf addressing, among other topics the "risks from the use of AI in the Federal Government"). The memo followed Exec. Order No. 141110, 88 Fed. Reg. 75191 (Nov. 1, 2023).

[89] Matthews v. Eldridge, 424 U.S. 319, 335 (1976); *see also* Carey v. Piphus, 435 U.S. 247, 259 (1978) (explaining that "procedural due process rules are meant to protect persons not from the deprivation, but from the mistaken or unjustified deprivation of life, liberty, or property").

on unreliable, and perhaps biased, algorithmic decision-making. When the claimant challenges the procedural failings as well as the ultimate decision, the underlying AI or GAI is directly at issue, thus, constituting real evidence in the case. But unlike the IV(B)(2)(a) cases, adjudicating these types of claims necessarily will require an examination of the basis for the machine decision.

In IV(B)(2)(a) and (b) cases in which the AI or GAI evidence is real evidence, used substantively, the evidence must meet the authentication and admissibility requirements for tangible items of evidence discussed in Part III (C)(2) as illustrated in Chart 1.

3. Application of Evidence Rules When AI or GAI is Real Evidence

a. Authentication of AI or GAI Real Evidence

In IV(B)(a) and (b) cases in which the AI or GAI is real evidence, directly at issue in the case, the pivotal evidentiary issue is whether the AI or GAI evidence that is being offered in court is authentic. Under existing evidentiary standards, the proponent of the AI or GAI evidence is required to present evidence "sufficient to support a finding that the item is what its proponent claims."[90] Thus, what is required to authenticate the AI or GAI evidence is determined by the proponent's explanation of the proffered use of the evidence.

For example, if the proponent claims that the evidence being offered is an AI-created video that the party observed on the internet, the party, as a person with knowledge,[91] could likely authenticate the video.[92] But if authenticated in that manner, the jury could only use the video for that purpose – to establish that it was the video that the party saw it on the internet. Based solely on that method of authentication, the jury would have insufficient evidence to conclude who created the video or who posted the video. The obvious question would be whether, in light of the limited purpose for which the evidence is offered and authenticated, the evidence has any probative value on any fact of consequence in the case. Thus, counsel may prevail on establishing authenticity, yet fail to establish admissibility because if the evidence cannot be connected to defendant, it is simply irrelevant.

Conversely, if counsel offers the video as the video that defendant created, posted, or distributed, the authentication method would be more taxing. The person who merely observed the video on the internet would not be a "person with knowledge" for the purpose of establishing that defendant master-minded the video. Thoughtful counsel will have used depositions, interrogatories, or requests to admit to establish defendant's connection to the video, but barring that foresight, counsel will be required to produce evidence sufficient to support a finding that defendant produced or posted the video in order to authenticate the video. Counsel might urge the trial judge to admit the video conditionally, subject to the production of other evidence connecting defendant to its creation or posting. But because the process of authenticating the

[90] *See e.g.*, Fed. R. Evid. 901(a).
[91] *See e.g.*, Fed. R. Evid. 901(b)(1).
[92] *See supra* Part II(A).

video will be tedious, expensive, and will likely require expert testimony, the judge should proceed cautiously. Before admitting the video conditionally, the judge should require counsel to proffer the proof that counsel will use to authenticate and connect the video to defendant. [93]

The most onerous authentication task will fall on counsel in cases challenging decisions made by machines using AI or GAI processes. In those cases, the process used, not merely the product it produced, is at issue. Thus, when counsel claims, for example, that a machine was trained with biased data sets or faulty algorithms, counsel will be required to authenticate the specific process or system used to make the decision at issue. Prudent counsel will tackle this evidentiary obstacle in discovery, but failing that, counsel will need sophisticated expert testimony in order to produce sufficient evidence that the process is what counsel claims, the actual process used to make the decision that damaged the claimant.

Some might suggest that existing methods of self-authentication can be construed to apply to AI or GAI evidence, thus simplifying the authentication process. The various self-authentication methods apply to evidence that shares a common trait, a trait that is not shared by AI or GAI evidence. Self-authentication methods apply to evidence created under circumstances in which "the possibility of unauthenticity" is reduced "to a very small dimension."[94] Clearly, the risk of unauthentic AI or GAI evidence is high, suggesting that any proposal to allow AI or GAI evidence to be self-authenticated should be carefully scrutinized.

Consider for example the most recent addition to the self-authentication methods adopted for use in the federal courts. The 2017 amendments to Federal Rule of Evidence 902 added Sections (13) and (14) to allow self-authentication of records and data "generated by an electronic process or system" or "copied from an electronic device, storage medium or file."[95] The additions were motivated by efficiency and economic concerns, but both provisions contain specific requirements and safeguards.[96]

Before data generated by an electronic process or system may be self-authenticated, a qualified person must certify that the process or system "produces an accurate result;" before data copied from an electronic device may be self-authenticated, a qualified person must certify "by a process of digital identification."[97] Both provisions require that the proponent give

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[93] *See e.g.*, Fed. R. Evid. 901(b)(9). In unique situations, authentication of the video as created by defendant might be accomplished by the "appearance, contents, substance, internal patterns, or other distinctive characteristics of the item, taken together with all the circumstances." *See* Fed. R. Evid 901(b)(4). For example, the video might include a physical setting that can be associated with defendant or may contain descriptions, references, or comments that can be connected to defendant, but given the impressive advancements of deep fake technology, circumstantial authentication is inherently suspect.

[94] *See* Notes of Advisory Committee on Proposed Rule, Fed. R. Evid. 902.

[95] Federal Rules of Evidence 902(13) and (14), added in 2017, ease the authentication of certified records and data "generated by an electronic process or system" (Fed. R. Evid. 902(13)) or "copied from an electronic device, storage medium or file" (Fed. R. Evid. 902 (14)).

[96] Committee Notes on Rules, 2017 Amendment, Paragraph (13) (noting that "the Committee has found that the expense and inconvenience of producing a witness to authenticate an item of electronic evidence is often unnecessary").

[97] *Id.*

"reasonable written notice of the intent to offer the [evidence]" and make the evidence and accompanying certification "available for inspection — so that the party has a fair opportunity to challenge them."[98]

Some might urge that to heighten efficiency, these Rules should be applied to AI and GAI evidence. But this approach ignores the reality that AI and GAI evidence are not merely other kinds of electronic evidence that can be treated identically to other forms of electronic evidence. Respectfully, adopting such a one-dimensional approach mimics the courts' hasty and impulsive reactions to other types of evidence and fails to learn the lessons provided once that evidence was debunked.

Moreover the rules imply, and the 2017 Advisory Commission Comments clarify, that the two provisions apply only when there is no genuine question as to authenticity of the evidence or when the certifying official establishes authenticity by advanced technological means.[99] Perhaps, when we gain greater knowledge and experience with AI and GAI processes, a self-authentication method may be developed for AI and GAI evidence, but currently, given the high potential for alteration and manipulations, courts should be leery of easing authentication requirements based on efficiency and economic concerns.

b. Admissibility of AI or GAI Real Evidence

In summary, when counsel seeks to introduce AI or GAI evidence as real evidence, for the purposes asserted IV(B)(2)(a) cases, the most formidable hurdle for counsel will be in authenticating the evidence for the purpose for which the evidence is offered. Once the evidence is authenticated, it must, of course, meet the general relevance requirement to be admissible, but in civil cases, other admissibility issues are unlikely. Because the truth of the content is not at issue, (although its falsity may be at issue in a defamation action), neither hearsay nor impeachment issues will likely arise. Moreover, challenges to the admissibility of the evidence under the original writing rules, also applicable only when the evidence is offered to prove content, will likely be impertinent unless the proponent attempts to offer testimonial evidence in lieu of the tangible evidence or if the challenger can establish some genuine question about the authenticity of the evidence.[100]

Issues of privilege may arise when AI or GAI evidence is offered in a case, but those issues will be adjudicated based on the privilege, trade secrets, and other relevant laws of the jurisdiction. Courts, however, should carefully scrutinize claims of privilege or protection raised

[98] Fed. R. Evid. 902(11); Fed. R. Evid. 902(14), (15) (requiring proponent to "meet the notice requirements of Rule 902(11)").

[99] Committee Notes on Fed. R. Evid. 902(14), (15) (2017) (providing that the "amendment allows self-authentication by a certification of a qualified person that she checked the hash value of the proffered item and that it was identical to the original. The rule is flexible enough to allow certifications through processes other than comparison of hash value, including by other reliable means of identification provided by future technology").

[100] *See e.g.*, Fed. R. Evid. 1001-04.

by the party offering the evidence, particularly when the privilege is asserted to resist disclosure of the systems used to produce the AI or GAI evidence.

Chart 1 summarizes the evidentiary issues that will likely arise and suggests approaches to be used in IV(B)(2)(a) cases in which AI or GAI evidence is offered as real evidence; chart 2 summarizes the evidentiary issues that will likely arise and suggests approaches to be used in IV(B)(2)(b) cases in which AI or GAI evidence is offered as real evidence.

Chart 1: AI or GAI as Real Evidence in IV(B)(2)(a) Cases

Case Allegations	Objection to Authenticity	Approach	Objection to Admissibility Issues & Approach
Fake Media Offered as Genuine	Consider: 901(b)(1) 901(b)(4) 901(b)(9) (as determined by proponent's statement of the purpose for which the evidence is offered)	1. Objecting counsel states legal grounds for objection. 2. Proponent states the purpose for which the evidence is offered and, when necessary, explains how evidence has been authenticated. 3. Trial Judge rules on grounds raised.	Consider: 402 403 1. Objecting counsel states legal grounds for objection. 2. Proponent responds to admissibility objection. 3. Trial Judge rules on grounds raised.
Unauthorized use of proprietary info by AI or GAI	Consider: 901(b)(1) 901(b)(4) 901(b)(9) (as determined by proponent's statement of purpose for which the evidence is offered)	1. Objecting counsel states legal grounds for objection. 2. Proponent states purpose for which evidence is offered and, when necessary, explains how evidence has been authenticated	Consider: 403 1002 1. Objecting counsel states legal grounds for objection. 2. Proponent responds to admissibility objection.

		3. Trial Judge rules on grounds raised based on proof offered.	3. Trial Judge rules on grounds raised based on proof offered.

Chart 2: AI or GAI as Real Evidence in IV(B)(2)(b) Cases

Case Allegations	Objection to Authenticity	Approach	Objection to Admissibility Issues & Approach
AI or GAI trained machine made erroneous decision depriving claimant of procedural due process	Consider: 901(b)(9) (as determined by proponent's statement of the purpose for which the evidence is offered and as affected by 702)	1. Objecting counsel states legal grounds for objection. 2. Proponent confirms that the purpose of the evidence is to establish erroneous decision; thus offers proof sufficient to support a finding that the evidence offered is the process or system used, generally requiring expert testimony. 3. Trial Judge rules on grounds raised based on proof offered.	Consider: 402 403 702 703 1002 1. Objecting counsel states legal grounds for objection. 2. Proponent responds to admissibility objection. 3. Trial Judge rules on grounds raised based on proof offered.

E. Civil Cases in which AI or GAI is Used to Create an Illustrative Aid

Trial counsel may seek to use a tangible item that was created by AI or GAI, but that is not real evidence in the case. State courts use various words and phrases to refer to these trial aids and require different foundations for their use.[101] As a result of the lack of uniformity, the use of in-court aids raises a number of issues as well as many opportunities for missteps.

In these cases, the item created by AI or GAI is neither an issue in the case nor directly connected to the case; as such it is not "evidence" and should not be referred to as evidence. The purpose of its use is not to establish facts in the case but rather to help explain testimony. Thus, the more proper label to apply is "illustrative aid," because the item illustrates but does not constitute evidence.

In addition to the lack of uniformity in state courts, the United States Circuit Courts of Appeals used different labels and approaches to illustrative aids. This division led to the proposal and adoption of a new Federal Rule of Evidence that creates a consistent procedure for dealing with the use of illustrative aids at trial.[102] Although states have not yet considered whether to adopt the Rule or its principles, the direction it provides for the use of illustrative aids is particularly helpful to the discussion in this Section,[103] and to state courts.

1. Cases in which AI or GAI has been used to Create Illustrative Aids

Assume that counsel has used AI or GAI to create a tangible item, in the form of multi-media, for use during trial.[104] Counsel may have invested in the creation of a model, chart, diagram, audio or video recording, developed through the use of AI or GAI that will help a witness explain detailed or complicated testimony such as, for example, counsel's theory of causation in a negligence action or a manufacturing design or defect in a products liability case.[105] Because of

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[101] *See supra* note 84.

[102] *See supra* note 69 and accompanying text.

[103] Fed. R. Evid. 107 (effective Dec. 1, 2024).

[104] Despite the varying practice in the state courts, the judge should mark all tangible items, whether real evidence or illustrative aids, and enter them into the record for identification purposes and include them as part of the trial court record in order to facilitate proper appeal review. The general rule, and that endorsed by the American Bar Association is that an illustrative aid (referenced as demonstrative evidence by the ABA) although marked and identified and published to the jury is not taken to the jury room during deliberations. *See* ABA STANDARDS, TRIAL BY JURY 15-5.1 (a) (providing that "court should permit the jury to take exhibits and writings *that have been received in evidence*, except depositions, and copies of instructions previously given) (emphasis added). This procedure is also incorporated into the December 1, 2024, amendments to the Federal Rule of Evidence as Rule 107(b), providing that ordinarily, an illustrative aid "must not be provided to the jury during deliberations," and 107(c), providing that "[w]hen practicable, an illustrative aid used at trial must be entered into the record." When the parties consent, or when the judge finds good cause to do so, the illustrative aid may be used by the jury during deliberations. Fed. R. Evid. 107 (b), (c) (effective Dec. 1, 2024).

[105] GAI can convert text to models, charts, and diagrams, creating demonstrative evidence. Available text-to-image models include DALL-E, Midjourney, and Stable Diffusion. Trial counsel may use these

continuing technological advancements, the aid may be very convincing and persuasive, substantially resembling the actual events. In these circumstances, the use of the aid may mislead or confuse the jury who, despite instructions to the contrary, may view the aid as factual and use it as an actual re-creation of reality, rather than as a machine-created object.[106]

2. Foundation for Use of Illustrative Aids Created by the Use of AI or GAI

Before allowing counsel to use an illustrative aid to help a witness explain testimony, courts generally require a foundation establishing that the aid is a fair and accurate portrayal or depiction[107] and that its use will help the witness explain testimony.[108] For example, in the non-AI world, a witness to an accident may be asked to draw a diagram showing the location of the vehicles following the accident. When asked by counsel, the witness may truthfully testify that the diagram is a fair and accurate representation of the scene that the witness observed, although obviously not drawn to scale and not admissible to prove facts. The foundation testimony is based on personal knowledge; even if the testimony includes the witness' opinion or conclusion, it is nonetheless generally admissible because it is rationally based on the witness's perception.[109] Moreover, the very nature of the illustrative aid – a hand-drawn diagram – will moderate its impact on the jury.

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tools to build visuals, which they may attempt to use as demonstrative evidence at trial. Additionally, some GAI tools, notably Beautiful.ai, Slidebean, SlidesAI, and Tome, may also be used to produce slide decks that can be exported to PowerPoint or PDF. Since the use of slide decks at trial is within the sound discretion of the trial judge, that use would rarely create evidentiary issues. *See* Bray, 139 F.3d at 1112 (providing guidance on various forms of illustrative summations, which the court refers to as a "pedagogical device," and distinguishing these devices from summaries, admissible under Fed. R. Evid. 1006); Advisory Committee Notes, Fed. R. Evid. 611(a) (noting that the rule anticipates that "the use of demonstrative evidence and the many other questions arising during the course of a trial . . . can be solved only by the judge's common sense and fairness in view of the particular circumstances") (citations omitted).

[106] Similar concerns have been raised when counsel seeks to use animations and simulations. *See e.g.*, People v. Duenas, 281 P.3d 887, 900-01 (Ca. 2012) (citing numerous cases and secondary sources to establish that courts must first distinguish between animations and simulations; must limit the use of animations to illustrating a witness's testimony; but may allow simulations as evidence when based on valid scientific principles and methodology).

[107] In some jurisdictions, evidence must establish that the aid is "substantially similar" to the facts in the case. *See e.g.*, Muth v. Ford Motor Co., 461 F.3d 557, 566 (5th Cir. 2006) (contrasting cases requiring application of the substantial similarity test from those that do not).

[108] In jurisdictions in which illustrative aids are considered evidence, this foundation requirement is supported by Rule 901(b)(1); in jurisdictions in which illustrative aids are not considered evidence, this foundation requirement is justified by the trial judge's inherent duty to supervise the proceeding, as codified in some jurisdictions in Rule 611(a)(1), requiring the judge to "exercise reasonable control over the mode and order of examining witnesses and presenting evidence so as to: (1) make those procedures effective for determining the truth."

[109] *See generally* Fed. R. Evid. 701(a)(allowing lay opinion that is rationally based on a witness's perception).

The "fair and accurate" foundation becomes complicated when the illustrative aid has been created by the use of AI or GAI. It is unlikely that the witness who is using the aid (or any witness, for that matter) could honestly verify the aid's accuracy. Additionally, unlike the simple hand-drawn diagram of an accident, the AI-created illustrative aid likely will be both interesting and compelling, raising the concern that the jury will misuse the aid, even in light of the judge's instruction that the aid be used only as it helps to illustrate or explain the witness's testimony.

In light of the complexity of AI and GAI processes, state courts should reevaluate the use of the "fair and accurate" standard. The witness's response to the "fair and accurate" foundational question is largely rote; moreover, a witness's response that an illustrative aid is accurate is misleading and can rarely be factually correct when AI or GAI processes are at issue. Moreover, the witness's fairness claim is equally unavailing, being little more than a self-serving statement based on the witness's opinion and perception of fairness. Thus, it is suggested that state courts should reevaluate the appropriateness of this commonly-used foundational requirement and focus more intently on whether the aid is actually needed to explain the witness's testimony and, if so, if it actually helps to do so.

3. Complimenting Foundation Requirements with Judicial Balancing Discretion

In addition to reevaluating the requisite foundation for the use of AI or GAI-created illustrative aids, courts may rely on the evidentiary principles underlying Rules 403 and 611 and upon their inherent authority to assure a fair and just proceeding as a means of regulating the use of illustrative aids.[110] Even in those states that adhere strictly to the premise that illustrative aids are not evidence and therefore, not subject to those rules that apply specifically to "evidence," the premises that underlie Rule 403 can be applied, based on a judge's inherent duty to assure fairness in judicial proceedings. Surely, if a trial judge may exclude relevant *evidence* out of concern that it will mislead, confuse, or unfairly prejudice the jury, then it logically follows that a judge has the discretion to prevent the jury from considering illustrative aids that present similar, perhaps even greater, concerns.

Using this approach, a trial judge would consider the utility of the illustrative aid in light of the potential dangers that the aid presents. In performing this analysis, the judge might consider the danger that the jury will confuse or misuse the illustrative aid as evidence, resulting in unfair prejudice to the opposing party.

In adopting this approach, the state necessarily would have to choose whether to apply a balancing standard that favors allowing the use of the aid or one that disfavors allowing its use. In light of the current complexity of AI and GAI, as well as its potential to create realistic and

[110] Some may argue that adhering to the treatment of illustrative aids as non-evidence negates the application of any rules that refer to "evidence," including Rules 403 and 611. But such an approach seems unnecessary and counter-productive and, arguably, would not serve to displace a trial court's use of its inherent authority to assure the fairness of the evidentiary process.

persuasive aids, states might choose to tilt the balance to disfavor use of AI and GAI-created illustrative aids, based upon the sound exercise of judicial discretion.[111]

Thus, the balancing test could take two forms. The test could allow judges to prevent the use of the illustrative aid when the danger that the illustrative aid would confuse or mislead the jury, or unfairly prejudice the opposing party, outweighed the value of the aid in helping the jury understand the witness's testimony. Alternatively, the test could prevent the use of AI and GAI-created illustrative aids unless the proponent demonstrated that the value of the aid in helping the jury understand the witness's testimony outweighed (or substantially outweighed) the potential dangers that accompany the use.

In addition to using the principles that underlie Rule 403 to regulate the use of illustrative aids, judges in states with an evidentiary rule similar to that found in Federal Rule of Evidence 611 may use its provisions to restrict the use of unfair or confusing illustrative aids. Under the provisions of the Rule, judges are required to monitor both the introduction of evidence and the "mode" of a witness's testimony, which arguably would include the witness's use of an illustrative aid.

4. Other Considerations about the Use of AI and GAI-Created Illustrative Aids

When the illustrative aid that has been created by AI or GAI includes oral or written statements, either in the form of explanatory voice-overs in a video, or labels, notes, or comments included on a diagram, chart, or model, the use of the aid becomes even more problematic. When illustrative aids include not only images, but words, the aid more closely mimics testimony, making it even harder for a juror to follow a judge's instruction to consider the aid only as a guide and not as evidence.

If counsel requests that a witness be allowed to use a summary or chart created by AI or GAI to illustrate the witness's testimony, the court must take special precautions to ensure that the jury understands the limited purpose of the aid, particularly if other summaries or charts have been introduced as evidence in the case. A chart may be treated as evidence and used to establish factual propositions only when all of the data used to create a summary or chart is independently admissible. In those circumstances, at least in federal rule-based jurisdictions, counsel must surmount the hefty procedural and substantive requirements of Rule 1006.[112]

[111] New Federal Rule 107 chooses the Rule 403 approach, but provides specifically that the "court may allow a party to present an illustrative aid . . . if the aid's utility in assisting comprehension is not substantially outweighed by the danger of unfair prejudice, confusing the jury, undue delay, or wasting time." Fed. R. Evid. 107(a).

[112] *See supra* notes 56-58, 105 and accompanying text.

Ironically, if counsel satisfies Rule 1006's arduous, time-consuming, and perhaps insurmountable requirements,[113] counsel could then introduce the chart as evidence.[114]

By way of example, assume that counsel uses GAI to summarize and convert volumes of text from company records and discovery documents into a summary that juxtaposes the summarized information against the requisite elements of proof in the case. Counsel proposes to allow an expert to use the summary as an illustrative aid to help the jury understand the expert's opinions and conclusions. Should the court permit this use of the summary based on the expert's claim that the summary is fair or accurate? Or should the use of this summary require a different foundation, even if counsel claims a purely illustrative purpose? In other words, given the technical nature of the summary, would the traditional fair and accurate standard, or even a revised standard requiring a reasonable depiction, suffice? Or should the court require that a qualified expert validate the summary, based on an explanation of the underlying methodology and an appropriate application of the method to sufficient underlying facts and data? More pointedly, given the nature of summaries created by AI or GAI, should an illustrative use ever be allowed, or should courts allow use only after authentication of the process or system used to create the summary?

The chart below summarizes the issues that will likely arise and suggests approaches for cases in which counsel seeks to use an illustrative aid created by AI or GAI in court.

Chart 3: Illustrative Aids Created by AI and GAI

Case Use	Approach	Admissibility
Illustrative Aids created by AI or GAI	1(a). If proponent states that item is offered as an illustrative aid, and jurisdiction does not treat aid as "evidence," • Trial judge requires proponent to lay proper foundation to establish that illustrative aid is a fair and accurate depiction or portrayal that will aid the jury in understanding the witness's testimony	For both 1(a) and 1(b), courts historically apply Rules 402 and 403 Consider: Rule 107 (effective Dec. 1, 2024) For 1(b), Consider: 702

[113] Rule 1006 requires that the proponent give opposing counsel notice, disclose the records, and establish that the records are too voluminous to be conveniently examined in court. Fed. R. Evid. 1006.
[114] Rule 1006 provides that a summary provides substantive evidence of its content if each piece of the information used to create the summary is independently admissible. *Id.*

	1(b). If proponent offers item as evidence, and jurisdiction allows, • Trial judge requires proponent to authenticate evidence, likely through Rule 901(b)(9) process and system authentication method • Trial judge should require proponent to comply with Rule 10(when evidence summarizes voluminous data ○ Likely implicates use of Rules 702 and 703 to vet the system and its accuracy as required by Rule 901(b)(9)	703 When verbal content is included and relied upon for its substance, Consider: 802 805 1002 When the evidence is a summary of voluminous data, Consider: 1006

Part V: Learning from Past Experiences

Institutions can benefit from looking at lessons learned from past experiences of a similar nature. The experience that is somewhat similar for courts facing the issue of the use of AI and GAI evidence in court would be the experience that courts have had with expert testimony in the scientific field. When the Rules of Evidence were adopted in 1975, after nearly a decade of study, discussion, and deliberation, most jurisdictions were following the *Frye* "general acceptance" test to determine the admissibility of expert opinion based on scientific or technical knowledge. Although the test set out in *Frye* by the United States District Court for the District of Columbia enjoyed wide-spread use, it was neither referenced, nor incorporated, into the Federal Rules of Evidence that governed expert opinion.[115]

For years, even after many states adopted the original Rules 701 and 702 of the Federal Rules of Evidence, courts continued to apply the *Frye s*tandard to determine the admissibility of expert opinion. This application caused little concern either because most of the expert opinion being offered had traditionally been allowed and was thus found to be "generally accepted" or

[115] Edward R. Becker & Aviva Orenstein, *The Federal Rules of Evidence After Sixteen Years--The Effect of "Plain Meaning" Jurisprudence, The Need for an Advisory Committee on the Rules of Evidence, and Suggestions for Selective Revision of the Rules*, 60 GEO. WASH. L. REV. 857, 877 (1992) (referring to the failure to mention *Frye* when adopting the Rules of Evidence as "the greatest single oversight in the Rules").

because serious challenges were not raised.[116] It was not until the Supreme Court decided *Daubert v. Merrell Dow Pharmaceutical* in 1993 that the focus was shifted to a more intense evaluation of the underlying methodology used by experts to arrive at their opinions.

Even after the instructive, somewhat controversial, decision in *Daubert*, courts routinely admitted the same types of scientific evidence they had admitted for decades, particularly in criminal cases, despite the failure to validate many forensic methods. Advocates began to challenge the admissibility, and scholars began to question the validity of common types of forensic evidence, noting the "dearth of peer-reviewed, published studies establishing the scientific bases and validity of many forensic methods."[117] Concerns about the wholesale admission of potentially unreliable scientific evidence led Congress to authorize the National Academy of Science to conduct a comprehensive study and report on existing forensic science disciplines and disseminate best practices and guidelines for the forensic science community.[118] The resulting report debunked the general acceptance of forensic evidence, establishing that many of the frequently relied upon forensic methods might be generally accepted but, nonetheless, were unreliable.

When facing complex evidentiary challenges, courts must resist the urge to react quickly and cursorily. Impulsive and imprudent treatment of serious evidence issues may prove unfair to the parties and serve to undermine the integrity of the justice system.[119] Despite the difficulty, courts must engage in an informed, deliberate, and objective debate, approaching complicated evidentiary issues systematically and appropriately.

State court trial judges are uniquely positioned to demonstrate methodical, disciplined approaches as novel evidentiary issues are raised. The volume of cases that state courts handle will ensure that these issues arise more frequently in state courts. When state court trial judges outline objections to and rulings on AI and GAI evidence and illustrative aids, they provide a clear record upon which state appellate courts can evaluate their approach and, if necessary, provide deliberate guidance for use in future cases. By exercising discretionary review in cases raising novel evidentiary issues, the states' high courts may promote uniform treatment of the evidence issues as well as generate discussion of new rules.

In considering novel evidence issues related to AI and GAI, state courts can benefit from proposals that have been made to amend and add to the Federal Rules of Evidence, but should engage in independent discussions and experiments of what modifications are necessary to

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[116] Paul Gianelli, "*Daubert:* Interpreting the Federal Rules of Evidence," 15 CARDOZO L. REV. 1999 (1994). This article includes a remarkably interesting and insightful history of the pre-Rules' and post-Rules' *Frye* jurisprudence as well as a description of the pre-*Daubert* reliability and relevance approaches to expert opinion).

[117] *See* NAT'L RSCH. COUNCIL – COMMITTEE ON IDENTIFYING THE NEEDS OF THE FORENSIC SCIENCES COMMUNITY, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A STEP FORWARD 8 (2009).

[118] *Id.* at 2.

[119] *See id.*

assure that courts continue to honor the purposes of evidence rules in an adversary system. By doing so, states fulfill their democratic role of serving as laboratories for novel issues.[120]

Part VI: Additional Concerns

The in-court use of AI and GAI evidence and illustrative aids spawns additional concerns that may impact the court system's ability to conduct proceedings efficiently and fairly. Some of these concerns are not unique to, but may be exacerbated by, the use of AI and GAI evidence and illustrative aids. Other concerns, such as the ever-broadening wealth gap in our courts, offer no readily available solutions, but they too must be acknowledged because acknowledgment may prompt new and creative solutions.

A. Additional Efficiency Concerns

The use of AI and GAI evidence and illustrative aids in court could potentially delay and disrupt proceedings as objections are raised and the use challenged. State court judges have a variety of mechanisms that can help limit and reduce these concerns. For example, trial courts should liberally use pretrial conferences in civil cases to establish deadlines for filing, responding to, and hearing pretrial evidentiary motions. Additionally, through standing orders or rule revisions, trial courts may require counsel to identify novel AI and GAI evidence issues, as well as issues related to the use of illustrative aids created by AI or GAI, that may be raised at trial. At a minimum, state courts should consider whether current initial disclosure rules, that require electronically stored information that "may use to support its claims or defenses," should be modified to clarify that electronically stored information includes evidence or aids generated by the use of AI and GAI.[121] Until rule changes are adopted, courts should continue to exercise their inherent authority, and responsibility, to manage the trial process in a manner conducive to assuring reasonably fair proceedings, a goal that early disclosure promotes.

Efficiency concerns may also be reduced by applying existing expert disclosure rules,[122] but these rules apply only when circumstances require that the AI and GAI evidence be introduced through an expert.[123] The current civil discovery rules do not require advance disclosure of the intent to use illustrative aids; neither does the new Federal Rule of Evidence 107 which governs the use of illustrative aids. This omission from Rule 107 was apparently intentional, based on the variety of illustrative aids traditionally used, and a concern that

[120] Supreme Court Justice Brandeis used the phrase "laboratories of democracy" in his dissent in *New State Ice. Co. v. Liebman*, 285 U.S. 371, 386 (1932) to describe how a "single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."

[121] *See e.g.*, Fed. R. Civ. Proc. 26 (a)(1)(A)(ii).

[122] *See e.g.*, Fed. R. Civ. Proc. 26 (a)(2).

[123] *See supra* Charts 2 and 3.

requiring advance notice "might improperly preview witness examination or attorney argument."[124]

As states consider whether to adopt Rule 107 or a similar provision to clarify the procedure to be followed when an illustrative aid is used, states should contemplate whether counsel should be required to disclose, in advance of trial, an intention to use illustrative aids that were created by AI or GAI. By limiting the disclosure requirement to those illustrative aids generated by AI or GAI that counsel proposes to use during witness testimony, as opposed to during counsel's presentations, states can avoid the over-breadth concern that prompted omission of a disclosure requirement from the new federal rule.[125] Courts could choose to limit the initial disclosure to notice, triggering an obligation on opposing counsel to discover the particulars and raise objections; alternatively, courts could require notice and production and address any claims that disclosure should not be required on a case-by-case basis.

B. Additional Fairness Concerns

The use of AI and GAI evidence in the courts will also generate serious fairness concerns that may interfere with the courts fulfilling their underlying purpose. For example, not all parties will have the resources to use AI and GAI evidence or illustrative aids. The broadening wealth gap in our justice system is not unique to issues arising out of the use of AI and GAI, but the expense and sophistication of AI and GAI may exacerbate an already pressing concern that justice depends on a party's resources. While Federal Rule of Evidence 706, allowing court-appointed experts, provides a means of addressing the problem, judges will be justifiably reluctant to appoint highly-skilled and likely expensive experts who, ultimately must be paid by the parties.

At present, the only available means of addressing the problem is for judges to require pretrial disclosure of the evidence or aid and to provide ample opportunity for opposing counsel to raise challenges through pretrial motions and *in limine* hearings. When opposing counsel fail to convince the judge to prevent the use of the evidence or the illustrative aids, judges should allow liberal cross-examination and should issue carefully-drafted limiting instructions, both contemporaneously with the use of the evidence or aid and at the close of trial.

Other fairness concerns arise because AI and GAI evidence, or aids created by its use, may be forceful and convincing, yet fake. Verdicts based on untrustworthy evidence are inherently unfair. Courts have a duty to assure that verdicts are based on reliable evidence and aids that provide the basis for truthful and just determinations. Allowing jurors to consider untrustworthy evidence or aids defeats the very purpose of the rules, while undermining the integrity of the courts as a viable dispute resolution system.

Some would respond to these trustworthiness concerns with the familiar "trust the adversary system" approach, while other would urge courts to "let it in for its weight." Candidly, both approaches seem insufficient, given the ever-expanding power and reach of AI and GAI;

[124] *See* Committee Note, Fed. R. Evid. 107 (effective Dec. 1, 2024).
[125] *Id.* (leaving to the trial judge the issue of whether to require advance notice and disclosure of illustrative aids).

moreover, both approaches arguably ignore two truisms: one, an adversary system cannot be expected to reach the correct result based on untrustworthy evidence; two, weighing untrustworthy evidence results in a skewed verdict.

A more disciplined approach, arguably, would be to expand the discretion that trial judges have to exclude evidence under the scales-of-justice rule, to apply to AI and GAI created illustrative aids. Trial judges would be better positioned to deal with fairness concerns presented by these illustrative aids if their discretion to exclude even helpful illustrative aids was clearly stated. States could specify the applicable balancing test and could require accompanying factfinding to serve as an additional layer of protection as has been done in other evidentiary contexts.

For example, most rules of evidence provide for the admissibility of records of regularly conducted activities[126] and public records[127] after certain pre-admission requirements are met. Despite satisfying the pre-admission requirements, courts may exclude business and public records upon a showing by the opponent that the information, its preparation, or its source lack trustworthiness. Given the ease in discovering, examining, and validating business and public records, this extra layer of protection is noteworthy. Another telling, and particularly pertinent, example is the extra layer of protection provided by some state evidence rules that allow the trial judge to exclude a qualified expert's opinion despite the validity and reliability of the expert's methods, when the underlying facts and data "indicate a lack of trustworthiness."[128]

States should consider adding similar trustworthiness requirements to the use of AI and GAI evidence and illustrative aids. The trustworthiness requirement could be built into the authentication, expert opinion, or illustrative aid rules. States could choose whether to follow the approach of the records exceptions, placing the burden on opposing counsel to establish a lack of untrustworthiness, or alternatively, to require the judge to make a threshold determination of trustworthiness in advance of admitting the evidence or allowing the use of the illustrative aid.

To address this fairness concern, judges may find helpful the courts' practice in similar contexts, for example, the use of animations and simulations (and arguably, the use of expert testimony) to issue more exacting instructions. [129] While pattern jury instructions address the limited use of illustrative aids, they often are woefully insufficient to guide even well-intended

[126] Fed. R. Evid 803(6), (7) (providing that for admission of business record, the court considers whether "opponent . . . show[s] that the source of information nor or the method or circumstances of preparation indicate a lack of trustworthiness").

[127] Fed. R. Evid. 803(8) (providing that for admission of public record, the court considers whether the "opponent . . . show[s] that the source of information nor or other circumstances indicate a lack of trustworthiness").

[128] *See e.g.*, Tenn. R. Evid. 703.

[129] For example, courts often caution jurors against viewing an animation or simulation as a recreation of reality and many courts encourage jurors to treat expert testimony with skepticism, giving it the weight, "if any," they feel it deserves.

jurors in following the law. Consider for example the language from this common jury instruction on the use of illustrative aids:

> This exhibit is not itself evidence. Rather, it is one [party's] [witness's] [summary] [explanation] [illustration] [interpretation], offered to assist you in understanding and evaluating that witness's testimony in this case. You may not use this exhibit to determine any facts that are necessary to reaching a verdict in this case. Keep in mind that facts can be determined only by evidence, which is supplied either through witness testimony, stipulations, or exhibits that are admitted into evidence that will accompany you to the jury room during your deliberations.

Well-intended jurors could rely on the aid to reach factual conclusions despite a good-faith effort to follow the judge's limiting instructions because the cognitive distinction is difficult in and of itself. How can any individual realistically sort out whether the factual conclusions that are reached derive exclusively from "evidence" or are based in part on the non-evidentiary illustrative aid used to explain testimony?

While it will take a collaboration of judges and counsel to draft a more effective instruction, some observations may be helpful. First, with the increasing use and affordability of AI and GAI, AI and GAI-generated illustrative aids will become more common. A prudent approach might be to create (or, perhaps, ask AI to create) separate jury instruction for those types of illustrative aids created by AI or GAI. Either way, the instruction might include telling the jury directly the following:

> Witness X used what we call an illustrative aid to help explain his/her testimony. The illustrative aid used by Witness X was created by the use of artificial intelligence. What you saw and heard on that illustrative aid does not represent reality. The aid was made by a machine, using artificial intelligence. You may not use what you saw or heard in the illustrative aid to determine any fact that is at issue in this case. You may only determine facts from witness testimony, from stipulations, and from the exhibits that I send with you to the jury room when you retire to deliberate.

C. Additional Concerns Raised by Entrenched Evidence Principles

Unwittingly, thinking about the role that AI and GAI evidence and illustrative aids is beginning to play in our courts raises concerns about other well-entrenched evidence principles, including the silent-witness theory and its counterpart, the pictorial testimony theory and, what

I will label, the human declarant dilemma, arising out of Rule 801(a)'s definition of "statement."[130]

Some courts adhere to the silent-witness theory to relax, and, at times, eliminate, authentication requirements for photographic and video evidence. Under the silent-witness theory, applied for example to surveillance cameras, the image produced by the camera is said to "speak for itself," removing the need for a witness to authenticate the image before it is introduced. Busy state court judges may be nudged by counsel to follow this simplified approach when dealing with AI and GAI evidence and illustrative aids, not only because it is efficient, but also because of the sheer complexity of unraveling all of the processes and systems involved in creating any AI or GAI evidence or illustrative aid.

Courts must avoid the temptation to oversimplify evidence and aids influenced by AI and GAI. The speaks-for-itself approach assumes, wrongly, that recording devices do not err; that the recording is infallible. Because no witness is required, the evidence cannot realistically be challenged. In avoiding this relaxed approach when AI or GAI evidence or aids are at issue, courts will begin to discard the wrong-headed assumptions that all machines produce reliable and trustworthy results. In all cases involving AI and GAI evidence and aids, judges should follow the example set by those courts adhering to a more prudent approach, requiring that the system that produced the images must itself be authenticated through the process or system method before any images may be introduced, particularly for evidentiary purposes.[131]

It is acknowledged that courts, generally, have been unmoved by these concerns, as is demonstrated by the failure of advocates to succeed in their challenges of digital images. Courts have largely discarded arguments that the increased capacity to alter digital images should lead to a more robust authentication requirement for digital imagery, choosing instead to leave matters to the adversary system, trusting opposing counsel to expose any irregularities.

Courts must refrain from resorting to these efficient short-cuts and must not allow the silent-witness theory to creep into the court's consideration of AI and GAI evidence and aids. Courts must recognize that AI and GAI evidence is different in kind and degree from other imagery evidence and, despite the complexity of the inquiry, must give the evidence the heightened scrutiny that it requires.

If it is readily accepted that machines are fallible, it is equally obvious that (at least for now) they cannot be called to the witness stand, sworn, and subject to cross-examination, the basic tenets of trustworthiness that underlie the exclusion of most hearsay evidence in an adversary system. To avoid the dilemma that treating a computer's output as a factual statement would cause, courts have uniformly accepted the proposition that neither machines nor non-humans like dogs have the capacity to make statements. Thus, when computers exclusively use software systems to process information, for example, and when trained narcotics dogs signal

[130] Fed. R. Evid. 801(a) (providing that '"[s]tatement' means a person's oral assertion, written assertion, or nonverbal conduct, if the person intended it as an assertion").

[131] These courts may require testimony about how the system operates, how it is maintained, updated, and secured, as well as testimony that verifies that the system was operating properly on the relevant date and at the relevant time.

the presence of contraband in a car, courts conclude that no statement is made. Thus, whatever the output, be it a computer record that establishes a fact at issue in the case or a dog signal leading to the confiscation of drugs from the trunk of a stopped vehicle, it is not a statement. And because it is not a statement, it cannot be hearsay.

Courts are justified, perhaps, in uniformly applying the rule. Most evidence rules, including Rule 801(d) of the Federal Rules of Evidence, define a statement, for hearsay purposes, as written or verbal assertions or asserted conduct made by a "person."[132] In addition to reliance on the definition, some courts add that neither computers nor dogs, unlike people, have the capacity to fabricate or be influenced by bias or prejudice. Courts use this rationale to distinguish between output generated solely by a computer's software system and other output, in which individuals have been responsible for inputting data, which may trigger trustworthiness concerns and hearsay rules. But while the input created by a human declarant may fall under the hearsay definition of statements, such statements are generally covered by a hearsay exception.

The human-declarant distinctions have made sense, perhaps, but the human-like qualities of AI and GAI should cause courts to reconsider a *carte blanche* application of the definition of statement to all machine-generated output, particularly when that output is created through the use of AI or GAI. It is more efficient to restrict the definition of statement to assertions made by a person, but is it fair? As AI and GAI advances, as robots acquire more abilities to think, reason, and act, should we continue to follow this human-declarant distinction? Arguably, if we genuinely intend for evidence rules to be able to meet their stated purpose of ascertaining truth and leading to just decisions, the human-declarant rule, as well as others, must be reconsidered.

CONCLUSION

The opportunity to confront the question "What Should Judges Look For?" has produced far more questions than it has answered, as demonstrated by this paper. In addition to producing more questions than answers, frankly, this project has generated anxiety and compassion for state court judges. At the same time, the project has increased my already-high level of respect for the men and women who serve this country as state court judges. I accept responsibility for dealing with my own anxieties, but express my heartfelt appreciation and respect for those judges who struggle daily to face new and challenging tasks in the administration of justice and to embody the indispensable role that judges play in upholding justice and the rule of law in an increasingly complex society.

[132] *See e.g.*, Fed. R. Evid. 801(d).