

The Paradigm Conflict and Convergence Between Artificial Intelligence and Evidence Law: A Study Through EU Regulation and Global Case Law

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Research Question



How does AI reshape judicial fact-finding?

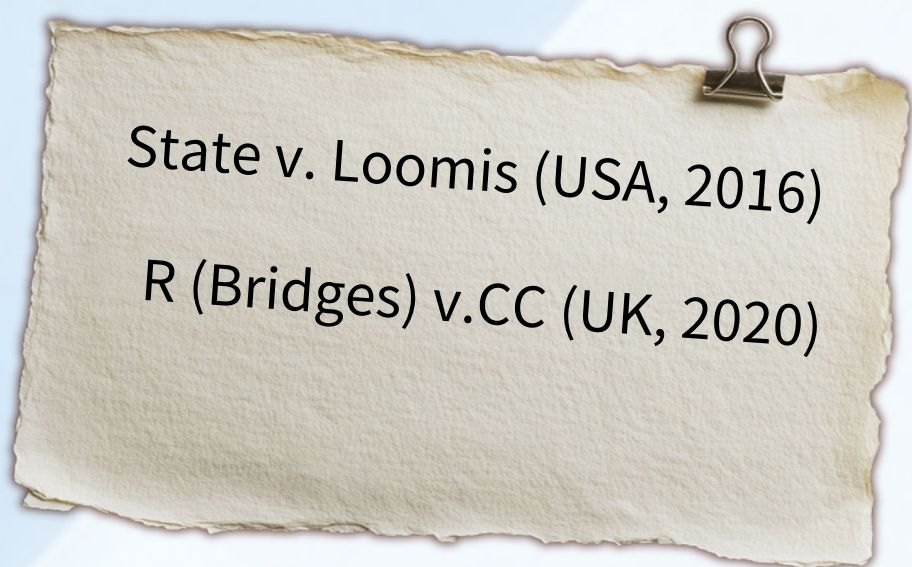
How do algorithmic opacity, data bias, and generative AI challenge traditional evidence law principles?

Analytical Framework

Legislation



Comparative case law



Dual Paradigm: AI as Enabler vs. Disruptor

Enabler	Disruptor
Chains of custody→chains of provenance	Algorithmic black box erodes right to challenge evidence
Human review→computational insight	Data bias undermines fair trial
Individual discretion→data-Informed Calibration	Generative AI collapses authenticity

Key Judicial-regulatory insight

Case/Act	Core issue	Evidence law reform implication
State v Loomis (US, 2016)	Algorithmic opacity; impossible cross-examination	Explainability as a precondition for admissibility
R (Bridges) v CC (UK, 2020)	Unassessed gender/racial bias in predictive AI	Mandatory prer-deployment bias impact assessment
EU AI ACT (2024)	Regulatory gap for high-risk judicial AI system	Provides system blueprint: risk tiers, transparency, audits

The Way Forward: Responsive Regulation Model

Pillar 1: risk-based admissibility rules

- ①High risk AI evidence→ rebuttable presumption of inadmissibility
- ②Low risk AI evidence→mandatory provenance disclosure

Pillar 2: dynamic evidentiary disclosure

Qualified right for defense to conduct "red-team" testing of prosecution's AI System under court supervision

Pillar 3: right to algorithmic due process

- ①Right to be notified of AI use in proceedings
- ②Right to an intelligible, case-specific explanation
- ③Right to human review of AI-assisted decisions

Conclusion

Responsive regulation + risk-based admissibility + dynamic disclosure + algorithmic due process = safeguard of evidence law in digital era

Key words

AI | Evidence Law | EU AI Act | Algorithmic Justice | Responsive Regulation