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AI and Real Estate Valuation: The Due Care Paradox

Epistemic Validation and Professional Responsibility in the Age of Artificial Intelligence

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Abstract

A valuer who does not use artificial intelligence risks falling behind. A valuer who uses it without being able to control it risks even more. This article examines the paradox of professional due care in the age of AI: real estate valuation is an obligation of means, and the professional is required to use the best tools available. But the best tools require greater, not lesser, competence.

Building on recent case law, the article shows how uncritical use of AI may amount to gross negligence, and raises a provocative question: could non-use eventually do so as well?

The growing use of artificial intelligence tools in valuation practice opens significant opportunities in terms of efficiency, analytical capacity and access to data, but it also raises new issues of professional responsibility.

The article introduces the concept of epistemic validation in real estate valuation: the valuer as guarantor of the cognitive quality of conclusions, not merely of their formal correctness. In a context in which AI produces outputs that are statistically plausible but not grounded in documentation and methodology, this validating function becomes the non-automatable core of the profession.

1. The Paradox

Not using artificial intelligence could become a problem for the valuer, just as using it without the competence required to control it could. The more prudent and professionally sustainable position today is to use AI with the preparation needed to verify its outputs.

A recent Italian case shows that the unverified use of algorithmic outputs can translate into a serious breach of professional duties.

On 20 February 2026, the Court of Syracuse (Sicily) ordered a lawyer to pay more than EUR 30,000 for citing four Supreme Court judgments that did not exist. Real judgments, invented contents. The most plausible explanation, according to the judge who issued the ruling, was the use of a generative artificial intelligence system without verification of primary sources. The Court qualified that conduct as gross negligence.

These episodes, together with others of a similar kind in Italy, Europe and the United States, suggest growing judicial and disciplinary attention to the unverified use of generative outputs. For this reason as well, the CCBE (Council of Bars and Law Societies of Europe) has issued specific guidance on the use of generative artificial intelligence by European lawyers. But the principle concerns all professions that operate on a documentary and evidential basis, including real estate valuation.

2. The Epistemic Tension

There is a structural tension between two different ways of producing knowledge in professional practice.

Artificial intelligence systems - in particular generative models and machine-learning systems - produce outputs on the basis of probabilistic inferences (Bender et al., 2021). The result is a statistically plausible configuration, but not necessarily knowledge grounded in verifiable sources.

Regulated professions operate according to the opposite logic: every statement must be traceable to an identifiable and controllable primary source. This is the documentary-evidential regime that characterises law, medicine, and of course real estate valuation as well.

The confusion between these two epistemic regimes - the algorithm's probabilistic regime and the profession's documentary regime - is precisely what produced the Syracuse case. And it is what can produce analogous failures in valuation practice.

A valuer who uses AI to identify comparables may receive a list of transactions that appear coherent in terms of type, size and location. The output is formally plausible. Yet some of those transactions may be related-party sales, forced disposals, or deals that are not representative of the market. AI cannot know this. It has no access to the actual conditions of the transaction. It does not interpret the economic context; it merely produces statistically plausible sequences - nothing more.

The output becomes a valuation only when it passes through the professional's verification, interpretation and acceptance of responsibility. That passage - epistemic validation - cannot be automated.

"Real estate valuation is not a mere exercise in technical calculation. It is a knowledge process through which the professional transforms heterogeneous information - transactional data, market signals, physical and planning characteristics, and economic context - into a justified and verifiable value judgment."

3. Epistemic Validation

The concept of epistemic validation describes the valuer's core function in the age of artificial intelligence.

Real estate valuation is not a mere exercise in technical calculation. It is a knowledge process through which the professional transforms heterogeneous information - transactional data, market signals, physical and planning characteristics, and economic context - into a justified and verifiable value judgment.

A system may suggest transactions that are statistically close in location, size or type. Yet real comparability is never a purely numerical fact: it may be compromised by extraordinary sale conditions, relationships between the parties, micro-market dynamics, or planning and leasing factors that the model does not adequately interpret.

It is here that algorithmic output must be subjected to epistemic validation, in line with the broader European orientation towards transparency, human oversight and responsible use of artificial intelligence systems (AI Act, Regulation (EU) 2024/1689).

This gives rise to a potential epistemic tension between two different logics: on the one hand, algorithmic plausibility generated by probabilistic systems; on the other, the verifiability of information that characterises the professional valuation process. Understanding and managing this tension is one of the principal challenges posed by the integration of artificial intelligence into valuation practice. For this reason, it is useful to introduce the concept of epistemic validation into valuation practice.

This process entails cognitive activities that go beyond statistical processing: it requires what the Greeks called phronesis - practical wisdom, the ability to judge the particular case.

From this perspective, the valuer takes on the role of epistemic validator: the professional who verifies the reliability of the selected comparables, interprets the economic context, assesses the plausibility of the analytical results produced by models, and assumes intellectual responsibility for them.

The signature on a valuation report is not a formal act. It is an act of epistemic validation: it attests that the conclusions derive from verified evidence and from autonomous professional reasoning. It attests not only to formal correctness, but also to the cognitive quality of the conclusions, thereby respecting the principles of professional judgment, accountability and explainability.

This is the professional's epistemic responsibility: the obligation - not delegable to any algorithmic tool - to answer for the soundness of what is being certified.

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4. Concrete Risks

The integration of AI into the valuation process entails three categories of risk that the valuer must understand and manage.

Algorithmic Opacity

Many AI systems operate as "black boxes": their internal decision-making mechanism is difficult to interpret. A valuer who cannot explain how a conclusion was reached will struggle to defend it in litigation.

Bias in Data

AI systems are trained on historical data that may reflect structural distortions. A model trained on transactions in an area that has historically been undervalued[1] will perpetuate that undervaluation. It does not "make a mistake"; it faithfully replicates what it has learned. Yet the result may be unfair and indefensible.

Automation Bias

The tendency to place excessive trust in algorithmic results. The more sophisticated the output appears, the more the professional lowers his or her guard (Parasuraman & Riley, 1997). As some authors have observed (Lazzaroli and Bozzo, 2026), the most advanced models reduce the frequency of errors but increase the formal quality of the residual errors - making them more plausible and harder to detect.

In summary: generative artificial intelligence excels in form, but professional responsibility consists in tracing every form back to its source. Where that traceability is missing - where epistemic validation does not occur - we are faced with a rupture in the relationship of trust with the client, which is fundamental to the profession.

[1] For example, if an area has historically been undervalued because of stigma, exclusion, or chronic underinvestment, an AI model trained on those transactions will tend to reproduce that discount. The output may be statistically consistent, but it may also be substantively unfair, because it converts historical distortion into present valuation logic.

5. Non-Delegable Functions

Responsibility for the value conclusion rests entirely with the valuer who signs the valuation report. The use of AI tools does not alter this principle.

Some phases of the valuation process remain intrinsically non-delegable:

- critical analysis of primary market evidence
- selection of the appropriate valuation methodology
- reconciliation of results from different approaches
- final value determination.

Accordingly, the relationship between AI and the valuation process can be articulated on three levels:

LEVEL	ROLE OF AI	ROLE OF THE VALUER
Data	Collection, processing, pattern recognition	Verification of primary sources
Model	Statistical inference, correlations	Methodological control
Judgment	Possible but not determinative	Epistemic validation

At the first two levels, AI offers significant contributions: analytical capacity, speed, and breadth of data. At the level of judgment, its algorithmic contribution is structurally limited. A probabilistic system cannot assume epistemic responsibility for certifying that a conclusion is grounded in verified evidence.

6. The Due Care Question

One issue deserves particular attention. In continental legal systems, real estate valuation gives rise to an obligation of means: the professional does not guarantee the result, but undertakes to employ the diligence and tools appropriate to the achievement of the purpose.

If artificial intelligence reaches a level of reliability capable of significantly reducing the risk of error - and the evidence suggests that, for certain phases of the valuation process, this is already happening - a relevant question arises: is the valuer who chooses not to make use of it, despite having the competence to do so, still fully complying with the duty of due care?

It's an open question, suggesting a possible selective evolution of the standard of professional due care, at least in certain data-intensive phases of the valuation process.

Artificial intelligence does not deprive the valuer of anything. On the contrary, by freeing the professional from repetitive activities, it offers the opportunity to do better and faster what truly matters: analyse, interpret, judge.

But this opportunity comes at a price: it requires greater, not lesser, preparation. Detecting the errors of a system that produces formally impeccable outputs is harder than detecting the mistakes of a junior trainee. AI does not lower the bar of competence - it raises it.

One might therefore say that the valuer who does not use AI risks falling behind. But the valuer who uses it without adequate preparation risks even more.

"If artificial intelligence reaches a level of reliability capable of significantly reducing the risk of error - and the evidence suggests that, for certain phases of the valuation process, this is already happening - a relevant question arises: is the valuer who chooses not to make use of it, despite having the competence to do so, still fully complying with the duty of due care?"

7. Implications for the Profession

This analysis of AI use in valuation has concrete consequences on three levels.

Training

AI literacy for valuers cannot be limited to the ability to use tools. It must include the critical competence to assess their limits, recognise biases, and verify the consistency between algorithmic output and primary market evidence. This training requires programmes specifically designed for the valuation profession, integrating technical competence and epistemological awareness.

Professional Governance

Professional bodies - and TEGOVA in particular - are called upon to define explicit standards that distinguish the phases of the valuation process in which algorithmic support is admissible from those in which the valuer's responsibility for validation remains central and irreplaceable.

Quality of Reports

This paper has outlined the conceptual framework of professional responsibility in the age of AI. What remains open is the need to translate these principles into operational tools: verification checklists, supervision protocols, and criteria for documenting the use of AI in the valuation report. Theoretical reflection must find concrete application in everyday practice.

Ultimately, a number of key points emerge for the valuer's professional practice:

Minimum controls for AI-assisted valuation

TITLE	DESCRIPTION
Clearly identify the role of AI in the assignment and Disclose to the client	The valuer should specify the function for which AI is being used in the valuation process, distinguishing between different uses that entail different levels of risk. Where relevant, whether, where, and for what purpose AI has been used.
Carry out proportionate due diligence on the tool used	This should include, at a minimum, identifying the provider, understanding the intended use of the system, assessing whether its data basis is relevant to the case.
Test the plausibility of the output	AI-generated output should be subject to critical review by comparing it with market evidence, professional judgment, and, where necessary, conventional valuation methods.
Ensure meaningful human oversight	Final judgment and professional responsibility remain with the valuer, who must be able to review, challenge, or reject the output produced by the system.
Keep a brief record of the material checks performed	Where AI has materially influenced the valuation, it is appropriate to keep a concise record of the tool used, the checks carried out, and the reasons for accepting or rejecting the output.

Conclusion

In valuation, artificial intelligence is not the problem; it can expand analytical capacity, accelerate data processing, and improve the valuer's operational efficiency. The real problem is the illusion that AI can replace professional judgment - that it can perform the function of epistemic validation that lies at the heart of the profession.

Valuation is not what a model calculates. It is what a professional assesses.

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