International Journal of Innovative Inventions in Social Science and Humanities

ISSN(print): 3050-6921, ISSN(online): 3050-693X

Volume 03 Issue 11 November 2026

DOI: 10.58806/ijiissh.2026.v3i11n10

Page No: 1611-1624

The Epistemic Limits of Judicial Review: Can Courts Effectively Review Decisions Whose Critical Knowledge Is Controlled by Private Actors?

Dr Godwin Gaduga

Lecturer at Accra Institute of Technology Adjunct Lecturer at Blue Crest University College.

ABSTRACT

Judicial review rests on an assumption that is rarely stated and whose failure has largely escaped doctrinal attention: that a court with power to scrutinize a public decision can also come to know what the decision rested on. That assumption is weakening across a wide range of governmental activity, because the critical knowledge behind many public decisions is now held by private actors in the form of proprietary scoring models, outsourced risk and eligibility assessments, consultants' technical reports, vendors' audit logs, and contractors' internal records. Frequently, the public body neither holds nor fully understands that knowledge. This article argues that the resulting problem is one of epistemic capacity rather than jurisdiction, and that it cannot be solved by affirming that a decision remains subject to review. It distinguishes formal reviewability, meaning the availability of a forum, a ground, and a remedy, from epistemic reviewability, meaning the practical capacity of a court, assisted by the parties, to know enough about the basis of a decision to apply the grounds of review to it. Drawing on English, Commonwealth, United States, European, and African authority, and anchoring the analysis in the Ghanaian constitutional guarantees of administrative justice and of fair and candid discretion, the article proposes a Decision-Critical Knowledge Test for identifying when informational dependence defeats review. It then specifies four minimum informational conditions for meaningful scrutiny: a complete and custodially secured record, evidential access sufficient to test contested inputs, access to independent expertise, and reasons capable of being challenged. It concludes that where those conditions fail for reasons attributable to the public authority, the proper judicial response is not deference but a structured presumption against the opaque decision, so that the risk of epistemic dependence falls on the institution that chose to create it.

ARTICLE DETAILS

Published On:
16 November 2026

KEYWORDS: Judicial Review, Epistemic Reviewability, Duty Of Candour, Outsourcing, Trade Secrets, Algorithmic Decision-Making, Expert Evidence, Reasons, Ghana, Articles 23 And 296

Available on:
https://ijiissh.com/

I. INTRODUCTION: THE COURT THAT CAN QUASH BUT CANNOT SEE

Consider three decisions. A teacher is dismissed on the strength of a performance score generated by a commercial statistical model whose formula the employing authority has never seen. A welfare claimant is selected for investigation by a risk profile built from data purchased by the agency and processed by a methodology that the vendor regards as its intellectual property. A riverside community is displaced by a licensing decision founded on an environmental assessment that was prepared, owned and only partly disclosed by the developer who stood to gain from the licence. In each case, the person affected may come to court and find every formal element of judicial review in place: a public decision, a recognized ground of challenge, a court with jurisdiction and a remedy capable of setting the decision aside. What the person may discover as the litigation proceeds is that the one thing missing is the knowledge without which none of those elements can be made to work. The first example is drawn from litigation. In *Houston Federation of Teachers v. Houston Independent School District*, a federal court allowed due process claims to proceed where teachers had been dismissed based on scores produced by a proprietary value-added model whose developer, relying on trade secrecy, declined to disclose the underlying algorithm even to the school district that paid for it.[1] The second closely resembles the

[1] *Houston Federation of Teachers, Local 2415 v Houston Independent School District* 251 F Supp 3d 1168 (SD Tex 2017). The litigation was later settled on terms under which the district agreed to stop using the scores as a basis for termination.

facts of the Dutch SyRI litigation, and the third describes a pattern familiar in resource and infrastructure regulation in many jurisdictions, including those of West Africa.[2]

This article argues that such cases expose a structural weakness in the theory and practice of judicial review which existing scholarship has addressed only in fragments. Administrative lawyers have written extensively on the duty of candour, the requirement to give reasons, deference to expertise and the legitimacy of closed material procedures. Scholars of technology regulation have produced a substantial literature on algorithmic opacity, trade secrecy and the so-called right to explanation, and scholars of the regulatory state have long examined the migration of public functions into private hands.[3] What has not yet been done with sufficient precision is to identify the problem common to these literatures, namely that a court's power to review may remain formally intact while its capacity to know is steadily eroded, and to ask, as a question of legal doctrine rather than of policy, at what point that erosion defeats review altogether.

The central research question is therefore: when does informational dependence undermine the practical effectiveness of judicial review? Informational dependence, in the sense used here, is the condition in which the knowledge needed to understand, test or evaluate a public decision is held or controlled by, or intelligible only to, a person other than the public authority answerable for the decision. That person is typically a contractor, vendor, consultant, licensee, or regulated party, and both the court and, very often, the authority itself depend on that person's willingness and ability to share what it knows. The question matters because judicial review is not only a remedy for individual grievance but also a constitutional mechanism for keeping public power within the law. A mechanism that operates only on what it can see will consistently fail to reach the decisions whose foundations have been placed beyond its sight.

The article makes three contributions. First, it distinguishes formal reviewability from epistemic reviewability and argues that the latter is a necessary condition of the former having real content: a decision that is formally reviewable but epistemically unreviewable is, in practice, immune from review on most of the grounds that matter. Secondly, it proposes a Decision-Critical Knowledge Test for identifying when informational dependence passes from inconvenience into constitutional failure. The test asks whether the withheld knowledge is critical to the decision, whether the ground of challenge requires engagement with it, whether an adequate substitute route to that knowledge is available, and whether the court's response to its absence is to defer to the decision-maker or to draw an inference against it. Thirdly, it specifies four minimum informational conditions of meaningful judicial scrutiny: a complete and custodially secured record, evidential access sufficient to test contested inputs, access to independent expertise, and reasons capable of being challenged. It argues that where those conditions fail for reasons attributable to the public authority, the default judicial response should be a structured presumption against the opaque decision rather than deference to it.

Although algorithm-assisted decisions are an important site of informational dependence, the analysis does not treat the problem as one peculiar to artificial intelligence. Automated systems are neither the only nor necessarily the most consequential source of the difficulty, and an account that confined it to machine learning would overstate its novelty while understating its reach into outsourced administration, procurement-dependent public services and expert-led regulation, where the same epistemic structure has existed for decades. The analysis is comparative. It draws principally on English and Commonwealth public law, United States administrative law, the law of the European Union and the Council of Europe, and the constitutional jurisprudence of South Africa and Kenya. It is anchored, however, in the 1992 Constitution of Ghana, whose express guarantees of administrative justice in article 23 and of fair and candid discretion in article 296 provide a clear textual foundation for the claim that epistemic reviewability is a constitutional requirement rather than merely a feature of good administration.[4]

Part II maps the four principal sites at which informational dependence arises. Part III develops the distinction between formal and epistemic reviewability. Part IV examines how existing doctrine responds to the problem and where it falls short. Part V states the Decision-Critical Knowledge Test. Part VI sets out the four minimum informational conditions and the consequences of their failure. Part VII answers the principal objections, Part VIII applies the framework to Ghana and proposes reform, and Part IX concludes.

II. THE ARCHITECTURE OF INFORMATIONAL DEPENDENCE

Informational dependence is not a single phenomenon. It is a recurring structure that appears wherever the production of knowledge relevant to a public decision is separated from the authority that makes, and answers for, the decision. Four sites of that separation

[2] *Nederlands Juristen Comité voor de Mensenrechten (NJCM) v State of the Netherlands*, District Court of The Hague, 5 February 2020, ECLI:NL:RBDHA:2020:1878 (English translation). SyRI (Systeem Risico Indicatie) was a statutory system for linking government data in order to identify persons at risk of committing benefits and tax fraud.

[3] See eg Danielle Keats Citron, 'Technological Due Process' (2008) 85 Washington University Law Review 1249; Marion Oswald, 'Algorithm-Assisted Decision-Making in the Public Sector: Framing the Issues Using Administrative Law Rules Governing Discretionary Power' (2018) 376 Philosophical Transactions of the Royal Society A 20170359; Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) 39 Legal Studies 636.

[4] Constitution of the Republic of Ghana 1992, arts 23 and 296.

may be distinguished. They are not mutually exclusive, since a single decision may involve several of them, but each produces a characteristic form of opacity, and each has attracted its own body of doctrine.

The first site is outsourced public administration, in which a public function is performed wholly or partly by a contractor under a commercial agreement. Examples include the operation of prisons and immigration detention, the administration of benefits assessments, the management of public health programmes, the collection of revenue and the delivery of identification and registration systems. In this setting, the records that would ordinarily form the decision-making file are generated and held by the contractor, frequently on its own systems and under contractual terms that allocate ownership, confidentiality and retention for commercial rather than constitutional purposes. Jody Freeman's observation that private actors have become participants in public governance, and not merely its objects, remains the essential starting point.[5] Its evidential consequence, however, has received less attention than its implications for accountability. Where the contractor is the custodian of the file, the court's access to the file depends on a chain that runs through a private party who is often not before the court and owes it no duty of candour.

The second site is expert-led regulation, in which a public decision rests on technical or scientific assessments that the decision-maker is not competent to generate and may not be competent to evaluate. Environmental and social impact assessments, pharmaceutical and food safety dossiers, engineering certifications, actuarial and fiscal projections and forensic analyses all fall into this category. In many regulatory regimes these assessments are prepared, or commissioned and paid for, by the applicant for the regulatory benefit, so that the authority receives knowledge that is not only technically demanding but also structurally interested. Sheila Jasanoff's study of scientific advisers as a 'fifth branch' of government and Elizabeth Fisher's account of administrative constitutionalism in risk regulation both show that the legitimacy of such decisions depends on the visibility of the expert reasoning to the institutions that oversee them.[6] Informational dependence threatens exactly that visibility.

The third site is algorithm-assisted decision-making, in which a public decision is informed or determined by a scoring, ranking, matching or classification system designed, trained or operated by a vendor. Three kinds of opacity arise here and are often conflated. Legal opacity exists where the vendor asserts trade secrecy or contractual confidentiality over the model, its training data or its validation results. Technical opacity exists where the internal reasoning of the system is not readily intelligible even to those with full access. Institutional opacity exists where the public body has purchased an output without acquiring the capacity to understand or audit it.[7] Frank Pasquale's account of the 'black box society' and Rebecca Wexler's demonstration that trade secret claims have been used to resist scrutiny of software in criminal proceedings show that legal opacity is often decisive in litigation, because it is asserted as a right rather than merely encountered as a technical limitation.[8] The decision of the Wisconsin Supreme Court in *State v. Loomis*, which permitted a sentencing court to consider a proprietary risk assessment whose methodology the defendant could not examine, subject to written cautions about its limitations, shows how readily courts may accept an epistemic gap where the human decision-maker retains nominal discretion over the outcome.[9]

The fourth site is procurement-dependent government, by which I mean the broader condition in which the state's capacity to perform a function, including its capacity to know what it is doing, has been acquired by contract rather than built within the institution. This site differs from outsourcing because the public authority may still formally take every decision itself. It does so, however, on the basis of systems, data infrastructure, analytics and advice that it has procured and does not control. The condition is especially significant in developing states, where fiscal constraints, donor financing and the pace of digital transformation have often led governments to procure identification, revenue, health and court information systems on terms that leave source code, data schemas and audit capacity with private or foreign vendors.[10] In that setting, the authority's understanding of its own decisions is mediated by the vendor. The difficulty is then not only that the court cannot see what the authority knows, but that the authority does not itself know what the court needs to see.

The same structure recurs across all four sites. Decision-critical knowledge is generated outside the answerable institution. It is held under a legal or practical regime that restricts its circulation. The answerable institution may be unwilling, unable, or not entitled to compel its production. And the affected person, who bears the burden of establishing a ground of review, has the least access of

[5]Jody Freeman, 'The Private Role in Public Governance' (2000) 75 New York University Law Review 543.

[6]Sheila Jasanoff, *The Fifth Branch: Science Advisers as Policymakers* (Harvard University Press 1990); Elizabeth Fisher, *Risk Regulation and Administrative Constitutionalism* (Hart Publishing 2007).

[7]The typology adapts Jenna Burrell, 'How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms' (2016) 3(1) Big Data & Society 1, which distinguishes opacity arising from intentional secrecy, from technical illiteracy and from the inherent complexity of the models.

[8]Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Harvard University Press 2015); Rebecca Wexler, 'Life, Liberty, and Trade Secrets: Intellectual Property in the Criminal Justice System' (2018) 70 Stanford Law Review 1343.

[9]*State v Loomis* 2016 WI 68, 881 NW 2d 749.

[10]For litigation arising from procured national digital identity infrastructure, see *Nubian Rights Forum v Attorney General* [2020] eKLR (High Court of Kenya, Consolidated Petitions 56, 58 and 59 of 2019).

anyone to the knowledge on which that ground depends. This last feature turns an administrative inconvenience into a question of constitutional justice, because informational dependence does more than make review harder: it shifts the practical risk of error onto the party least able to detect or bear it.

III. FORMAL REVIEWABILITY AND EPISTEMIC REVIEWABILITY

The conventional analysis of whether a decision can be challenged proceeds through a series of formal questions. Is the decision-maker amenable to review? Is the decision of a kind that the courts will examine? Does the applicant have standing, and is the claim brought in time? Does a statutory ouster or an alternative remedy exclude the court? Is a recognized ground of review available? When these questions are answered favourably, the decision is said to be reviewable, and the analysis usually ends there. I shall call this property *formal reviewability*. It concerns the existence of a forum, a ground and a remedy, and most of the case law on amenability, justiciability and ouster clauses has been developed to protect it.

Formal reviewability is necessary, but it is not sufficient. Every ground of review is in substance a proposition about the relationship between a decision and something else: between the decision and the statute conferring the power, in the case of illegality; between the decision and the considerations that were or ought to have been taken into account, in the case of relevancy; between the decision and the evidence before the decision-maker, in the case of irrationality, unreasonableness and error of fact; between the decision and the process followed, in the case of procedural unfairness; and between the decision and the interests it affects, in the case of proportionality. To apply any of these grounds, the court must know the second term of the relationship. It must know what considerations were in fact taken into account, what evidence was in fact relied on, what process was in fact followed and what reasoning in fact connected the evidence to the outcome. I shall call the practical capacity of the court, assisted by the parties, to acquire that knowledge to the extent required by the ground relied on *epistemic reviewability*.

Three features of the distinction should be noted. First, epistemic reviewability is ground-relative. A decision may be epistemically reviewable for illegality, because the question whether the authority had power to act can be answered from the statute and the face of the decision, yet epistemically unreviewable for irrationality, because the reasoning connecting evidence to outcome lies inside a proprietary model or an undisclosed consultant's report. The grounds most vulnerable to informational dependence are therefore the substantive grounds that test the quality of reasoning, and those are the grounds that matter most where public power is exercised through technical judgment. Secondly, epistemic reviewability is a matter of degree. Courts routinely review decisions on incomplete information; the question is never whether the court knows everything, but whether it knows enough to apply the ground without simply accepting the decision-maker's description of its own reasoning. Thirdly, epistemic reviewability is relational. It depends not only on what information exists but on who holds it, under what legal regime, with what incentives, and on which procedural tools are available to the court to compel its production or to supply a substitute for it.

The central claim of this Part is that a decision which is formally reviewable but epistemically unreviewable is, in practical terms, immune from review on every ground for which the missing knowledge is necessary. The point may be made by comparison with ouster clauses. Since *Anisminic Ltd v Foreign Compensation Commission*, and more recently in *R (Privacy International) v Investigatory Powers Tribunal*, common law courts have treated legislative attempts to exclude review with deep suspicion, because the rule of law requires that the legality of public action be determinable by an independent court.[11] An ouster produced by informational dependence is in one respect more effective than an ouster in statutory form. It appears on the face of no instrument, it does not require the legislature to accept political responsibility for excluding the courts, and it is built up gradually through procurement terms, confidentiality clauses and institutional arrangements that no court is asked to examine. The law has a highly developed doctrine for resisting the express exclusion of the courts and almost none for resisting their practical exclusion through the privatization of knowledge. I shall call this phenomenon *epistemic ouster*.

It may be objected that the distinction merely restates the procedural problem of disclosure, and that the existing rules on discovery, candour and evidence already supply the answer. The objection misplaces the level at which the problem operates. Disclosure rules govern what a party must produce from what it holds or controls. They are therefore vulnerable to a structure in which the public body neither holds nor controls the critical knowledge and the private holder is a stranger to the litigation. Disclosure is, moreover, only one of the conditions of epistemic reviewability. A court presented with source code and training data that it cannot interpret, or with a technical report whose methodology it cannot evaluate without assistance, has received disclosure without acquiring knowledge. The distinction between formal and epistemic reviewability thus identifies a problem that cuts across procedure, evidence, institutional competence and substantive doctrine, and any adequate response must address all four.

The distinction also connects with philosophical work on epistemic injustice. Miranda Fricker's account of hermeneutical injustice, in which a person is disadvantaged because the collective resources for making sense of an experience are unavailable to that person, describes closely the position of a litigant who knows that a decision has wronged him or her but cannot say how, because the

[11] *Anisminic Ltd v Foreign Compensation Commission* [1969] 2 AC 147 (HL); *R (Privacy International) v Investigatory Powers Tribunal* [2019] UKSC 22, [2020] AC 491.

conceptual and evidential materials for articulating the wrong are held by someone else.[12] Judicial review was designed in part to correct that asymmetry by obliging the authority to explain itself. Informational dependence restores the asymmetry by placing the explanation beyond the authority's own reach. In the African philosophical tradition, Kwasi Wiredu's account of consensus as a basis of legitimate authority expresses a related insight: those who exercise authority must be able to render their reasons intelligible to those bound by them, an obligation that cannot be discharged if the reasons are unavailable to the authority itself.[13]

IV. HOW EXISTING DOCTRINE RESPONDS

No legal system has ignored the problem. Each of the principal doctrinal resources of judicial review contains an element that responds to informational asymmetry. This Part identifies what each resource achieves and the point at which it gives way when the critical knowledge is held by a private actor.

A. The duty of candour

In English law, a public authority defending a claim for judicial review must place before the court all the facts and reasoning relevant to the decision. Sir John Donaldson MR described the obligation as requiring authorities to conduct litigation 'with all the cards face upwards on the table'.[14] The Privy Council in *Belize Alliance of Conservation Non-Governmental Organizations v Department of the Environment* confirmed that the duty extends to material adverse to the authority's own case, and the House of Lords in *Tweed v Parades Commission for Northern Ireland* held that, although disclosure in judicial review remains exceptional, it should be ordered where necessary to resolve the issues fairly and justly, including where an authority's summary of a document may not accurately reflect its contents.[15] The duty of candour is the most important doctrinal response to informational asymmetry because it displaces the ordinary adversarial assumption that each party proves its case from its own materials.

Its limitation in the present context is that it attaches to the public authority and is measured by what the authority knows or holds. In its classical form it does not oblige the authority to acquire knowledge it chose not to obtain, and it does not bind a contractor or vendor who holds the decision-critical information. The decision of the Court of Appeal in *R (Bridges) v Chief Constable of South Wales Police* partly closes that gap in a related context. The police force had deployed automated facial recognition software supplied by a commercial developer which, for reasons of commercial confidentiality, declined to disclose the demographic composition of its training data. The court held that this did not relieve the force of its public sector equality duty to satisfy itself, directly or by independent verification, that the software did not carry an unacceptable risk of bias.[16] *Bridges* establishes a principle of considerable generality: a public authority cannot discharge a public law obligation by pointing to a private supplier's refusal to share the information that the obligation requires. What it does not establish, because the question did not arise, is the corresponding evidential principle that an authority's inability to produce such information in litigation must itself carry legal consequences for the review.

B. The record

United States administrative law approaches the problem through the administrative record. Since *Citizens to Preserve Overton Park v. Volpe,* the reviewing court has been required to examine 'the whole record' that was before the agency, and the doctrine of reasoned decision-making articulated in *Motor Vehicle Manufacturers Association v. State Farm* requires the agency to show a rational connection between the facts found and the choice made.[17] The record rule is strict where the record is complete, but it contains a vulnerability that informational dependence exploits. The court ordinarily reviews the record as the agency compiles it, and material held by contractors that never entered the agency's files may, for review, simply not exist. *Department of Commerce v New York*, in which the Supreme Court looked beyond the record because the stated rationale for adding a citizenship question to the census appeared contrived, shows that the presumption of regularity can be displaced, but only on a strong showing that an applicant is rarely able to make when the relevant knowledge is held by someone else.[18]

South African law offers a stronger version of the record principle. Under rule 53 of the Uniform Rules of Court, the decision-maker must dispatch the record of the proceedings sought to be reviewed, and the Constitutional Court in *Helen Suzman Foundation v Judicial Service Commission* held that the record extends to everything relevant to the decision, including the deliberations of the

[12]Miranda Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford University Press 2007) ch 7.

[13]Kwasi Wiredu, *Cultural Universals and Particulars: An African Perspective* (Indiana University Press 1996), especially the essay on democracy and consensus in African traditional politics.

[14]*R v Lancashire County Council, ex p Huddleston* [1986] 2 All ER 941 (CA) 945.

[15]*Belize Alliance of Conservation Non-Governmental Organisations v Department of the Environment* [2004] UKPC 6, [2004] Env LR 38 [86]; *Tweed v Parades Commission for Northern Ireland* [2006] UKHL 53, [2007] 1 AC 650.

[16]*R (Bridges) v Chief Constable of South Wales Police* [2020] EWCA Civ 1058, [2020] 1 WLR 5037 [199]-[201].

[17]*Citizens to Preserve Overton Park Inc v Volpe* 401 US 402, 420 (1971); *Motor Vehicle Manufacturers Association v State Farm Mutual Automobile Insurance Co* 463 US 29, 43 (1983).

[18]*Department of Commerce v New York* 588 US 752 (2019).

decision-maker, because an applicant cannot meaningfully challenge what it cannot see.[19] The South African approach treats the record as an entitlement of the applicant rather than a convenience of the court. It is the existing doctrine closest to what this article describes as the first minimum condition of epistemic reviewability.

C. Reasons

The duty to give reasons, whether derived from common law fairness as in *R v Secretary of State for the Home Department, ex p Doody*, from statute or from constitutional guarantees of administrative justice, performs important epistemic work, because reasons disclose the decision-maker's own account of the considerations and inferences on which it relied.[20] In *Canada (Minister of Citizenship and Immigration) v Vavilov,* the Supreme Court of Canada made justification, transparency and intelligibility the organizing criteria of reasonableness review and held that a reviewing court must be able to trace the decision-maker's reasoning without encountering a fatal flaw in its overarching logic.[21] Reasons, however, can be no more informative than the decision-maker's own understanding. An authority that relied on a proprietary score can truthfully say that it relied on the score, but it cannot say why the score was what it was. A reason that ends in a black box conceals the decisive step rather than disclosing it. The established standard, that reasons must enable the person affected to understand why the matter was decided as it was and whether there is a ground of challenge, is capable in principle of condemning such reasons.[22] Courts have nonetheless rarely applied it to the content of technical inputs, tending to ask whether the decision-maker explained its reliance on an input rather than whether the input itself was explained.

D. Deference to expertise

The doctrine that courts should give weight to the technical judgment of specialist decision-makers compounds the problem. Deference is defensible when it rests on the decision-maker's superior institutional competence and on its accountability for the exercise of that competence, as the United Kingdom Supreme Court recognized in *R (Lord Carlile of Berriew) v Secretary of State for the Home Department*.[23] Deference presupposes, however, that the expertise belongs to the decision-maker. Where the authority has borrowed the expertise of a vendor or consultant whose reasoning it cannot reproduce, the institutional basis for deference falls away: the court is asked to defer not to an accountable public body but to a private actor whose competence has not been tested and whose reasoning has not been exposed. The repudiation by the United States Supreme Court of *Chevron* deference to agency interpretations of law in *Loper Bright Enterprises v. Raimondo* does not address deference on questions of fact or technical judgment. Its insistence that courts exercise independent judgment rather than abdicate it to the administrator nonetheless reflects the principle on which the present argument relies: deference must be earned by the qualities that justify it.[24]

E. Closed material and confidentiality procedures

The final resource is procedural. Courts have developed confidentiality rings, redaction protocols, special advocates, hearings in private and, in the security context, statutory closed material procedures, all of which allow sensitive information to reach the court without full public or adversarial disclosure.[25] The Court of Justice of the European Union took a significant step in this direction in *Dun & Bradstreet Austria*. It held that where a controller claims that information about the logic of an automated decision contains trade secrets, the controller must provide that information to the competent supervisory authority or court, which must balance the competing interests and determine the extent of the data subject's right of access. It also held that a national rule excluding the right of access in favour of trade secrets as a matter of course was incompatible with the General Data Protection Regulation.[26] The principle that the court, and not the holder of the secret, decides what may be withheld is of the first importance. Its limitation is that the court receiving the material must still be able to understand it, and procedures that exclude the affected party from the material weaken the adversarial testing on which the court's understanding ordinarily depends. The United Kingdom Supreme Court recognized the depth of that cost in *Al Rawi v Security Service*, declining to introduce a closed material procedure at common law because it departs from the fundamental principles of open and natural justice.[27]

---

[19]*Helen Suzman Foundation v Judicial Service Commission* [2018] ZACC 8, 2018 (4) SA 1 (CC); Uniform Rules of Court, r 53.
[20]*R v Secretary of State for the Home Department, ex p Doody* [1994] 1 AC 531 (HL).
[21]*Canada (Minister of Citizenship and Immigration) v Vavilov* 2019 SCC 65, [2019] 4 SCR 653 [99]-[102].
[22]*South Buckinghamshire District Council v Porter (No 2)* [2004] UKHL 33, [2004] 1 WLR 1953 [36].
[23]*R (Lord Carlile of Berriew) v Secretary of State for the Home Department* [2014] UKSC 60, [2015] AC 945.
[24]*Loper Bright Enterprises v Raimondo* 603 US 369 (2024), overruling *Chevron USA Inc v Natural Resources Defense Council Inc* 467 US 837 (1984).
[25]Justice and Security Act 2013 (UK), pt 2; *Charkaoui v Canada (Citizenship and Immigration)* 2007 SCC 9, [2007] 1 SCR 350; on confidentiality rings, see *Infederation Ltd v Google LLC* [2020] EWHC 657 (Ch).
[26]Case C-203/22 *CK v Dun & Bradstreet Austria GmbH* (CJEU, 27 February 2025); see also Court of Justice of the European Union, Press Release No 22/25 (27 February 2025).
[27]*Al Rawi v Security Service* [2011] UKSC 34, [2012] 1 AC 531.

F. The common deficiency

Each of these doctrines addresses one dimension of epistemic reviewability, and each assumes that the others are functioning. Candour assumes that the authority holds what matters. The record rule assumes that the record is complete. The reasons requirement assumes that the decision-maker understands its own reasoning. Deference assumes that the expertise is the decision-maker's own. Confidentiality procedures assume that the court can interpret what it receives. Informational dependence defeats all five together, because it places the knowledge outside the authority, outside the record, outside the reasons, outside the decision-maker's competence and often outside the court's unaided understanding. What is lacking is not another doctrine of the same kind but an integrating principle that identifies when the cumulative failure of these resources amounts to a failure of review itself, and that states what follows.

V. WHEN INFORMATIONAL DEPENDENCE DEFEATS REVIEW: THE DECISION-CRITICAL KNOWLEDGE TEST

Not every informational gap raises a constitutional problem. Courts review decisions every day without access to everything the decision-maker considered. A theory that treated every undisclosed input as fatal would be unworkable and unjustified, because it would allow applicants to defeat lawful decisions merely by identifying something they had not seen. A threshold is required, and the one proposed here takes the form of four questions, which together make up the Decision-Critical Knowledge Test. Informational dependence defeats the practical effectiveness of judicial review when each question is answered in the affirmative.

1. **Criticality.** Is the withheld or inaccessible knowledge decision-critical, in the sense that without it the decision cannot be understood, or its stated rationale cannot be connected to its outcome? Knowledge is decision-critical where, if it were removed from the decision-maker's reasoning, the decision would cease to be explicable on its own terms. A consultant's report that the minister read and set aside is not decision-critical. A risk score that triggered an investigation, a model output that determined eligibility, or an impact assessment whose conclusions were adopted without modification as the conditions of a licence plainly is.

2. **Ground-dependence.** Does the ground of review actually relied on require engagement with that knowledge? Because epistemic reviewability is ground-relative, the test asks whether the applicant's challenge, properly formulated, turns on the content of the inaccessible knowledge. A challenge to the authority's power to procure the system may not. A challenge alleging that a score was irrational, discriminatory, based on irrelevant considerations, or founded on a material error of fact almost always will.

3. **Absence of substitute.** Is there no adequate alternative means by which the court can acquire the relevant knowledge or be satisfied about it? Possible substitutes include production by the private holder under a compulsory order, inspection within a confidentiality ring, examination of the material by the court itself in the manner contemplated in *Dun & Bradstreet*, the appointment of an independent expert or assessor, validated audit evidence from an independent source, and the testing of outputs through sample or counterfactual analysis. A substitute is adequate only if it allows the ground of review to be applied based on knowledge rather than assurance. A sworn statement from the vendor that its model is accurate is not a substitute; it is a restatement of the claim in issue.

4. **Deference in place of inference.** In the absence of the knowledge, is the court resolving the uncertainty in favour of the decision-maker, whether by applying the presumption of regularity, by deferring to the authority's expertise, or by holding that the applicant has not discharged the burden of establishing the ground? This final question converts an informational gap into a failure of review, because it identifies the point at which the court's ignorance is allocated to the party who did not cause it.

The test has three features that distinguish it from existing approaches. It is cumulative: informational dependence that fails any one limb does not defeat review, and the ordinary rules apply. It is diagnostic rather than remedial: it identifies the point of failure without itself prescribing the consequence, which is addressed in Part VI. And it is located in the reasoning of the reviewing court rather than in the conduct of the decision-maker. The constitutional wrong it identifies is not that the authority relied on private knowledge, which may be entirely proper, but that the reviewing court has been placed in a position where it cannot perform its function and has responded by assuming that the function need not be performed.

The fourth limb explains a pattern in the cases. In *Loomis,* the Wisconsin Supreme Court accepted that the defendant could not examine the methodology of the risk assessment tool, but concluded that due process was satisfied because the defendant could challenge the inputs and the sentencing court retained discretion, guided by cautionary advisements about the tool's limitations.[28] In the terms of the test, the court acknowledged criticality and ground-dependence, identified a partial substitute in the opportunity to contest inputs, and resolved the remaining uncertainty in favour of the decision-maker. In *Houston Federation of Teachers*, by

[28] *Loomis* (n 9).

contrast, the court held that the teachers had raised a triable claim that procedural due process required an opportunity to test the accuracy of their scores. It drew an analogy with *Banks v. Federal Aviation Administration*, in which employees dismissed on the basis of drug tests were denied due process when the samples were destroyed, and independent retesting became impossible.[29] The *Houston* court in effect refused to allow the absence of a substitute to be resolved by deference. The outcomes differed not because the epistemic situations differed materially but because the courts answered the fourth question differently. The test is designed to make that choice visible and to subject it to principled constraint.

The SyRI judgment illustrates the same choice at the level of legislation. The District Court of The Hague held that the statutory framework for the welfare fraud risk system was incompatible with the right to respect for private life under article 8 of the European Convention on Human Rights, in significant part because the risk model and its indicators were not disclosed. Neither the persons affected nor the court could therefore assess whether the interference was necessary and proportionate, or whether it had discriminatory effects.[30] The court did not demand full disclosure of the model. It held that the State, having kept the model secret, could not satisfy the court that the safeguards against arbitrary interference were adequate. That is an inference against the opaque decision-maker, and it is the alternative to deference that the fourth limb identifies. The judgment of the Court of Justice in *Ligue des droits humains* on the processing of passenger name records reflects a similar logic. The Court required that automated risk assessment be based on pre-determined criteria that are non-discriminatory and capable of review, and it held that self-learning systems capable of modifying their assessment criteria without human control are precluded, because they would deprive individuals of effective judicial protection.[31]

VI. THE MINIMUM INFORMATIONAL CONDITIONS OF MEANINGFUL SCRUTINY

If the Decision-Critical Knowledge Test identifies when review fails, the next question is what must be in place for it to succeed. Meaningful judicial scrutiny of a decision resting on decision-critical knowledge requires four minimum informational conditions. They are minimum conditions in a strict sense: each is necessary, none is sufficient on its own, and the intensity with which each must be satisfied varies with the ground relied on and the gravity of the interest affected. They are also designed to be achievable by existing courts using existing procedural powers, so that they can operate as standards of judicial practice and administrative design.

A. First condition: a complete and custodially secured record

The first condition is that decision-critical knowledge must exist in a form capable of production and must be within the legal reach of the authority that answers for the decision. The condition has two components. The completeness component requires that the record include not only the documents that passed before the decision-maker but also the decision-critical inputs on which those documents depend. These include model versions, input data, parameter settings, validation and error-rate information, the assumptions and methodology of technical assessments, and the communications between the authority and the private actor that shaped the decision. The South African treatment of the rule 53 record shows that such a conception of the record is workable. The custodial component requires that the authority hold a legally enforceable right to obtain that knowledge from the private holder for the purposes of review and audit, notwithstanding any claim of commercial confidentiality, and that it preserve the knowledge for long enough to permit challenge. The principle underlying this component may be called the *non-transfer principle*: a public authority that obtains decision-critical knowledge from a private actor may transfer the task of producing that knowledge, but not the obligation to make it available to a court. An authority that contracts on terms that leave it unable to obtain the knowledge on which its own decisions depend has not merely made a poor bargain. It has fettered its constitutional accountability.

B. Second condition: evidential access sufficient to test contested inputs

The second condition is that the applicant must have access to the decision-critical knowledge, or to an adequate substitute for it, to the extent needed to advance and test the ground of review. Access need not mean public disclosure, nor access to everything. It means access calibrated to the ground relied on: to the personal data and variables actually used in the applicant's case; to the general logic and principal factors of a model, expressed in a form intelligible to a non-specialist; to the methodology and key assumptions of a technical assessment; and, where the challenge alleges systematic error or discrimination, to aggregate performance information or to a structured opportunity to test outputs. This is the condition that the *Houston Federation of Teachers* treated as a requirement of due process. It is also what the Court of Justice in *Dun & Bradstreet* treated as the content of the right to an explanation of automated decision-making, which it described as an account of the procedure and principles actually applied, sufficient to enable the person concerned to understand and contest the outcome, rather than the mere communication of the algorithm.[32] Where

[29] *Houston Federation of Teachers* (n 1); *Banks v Federal Aviation Administration* 687 F 2d 92 (5th Cir 1982).
[30] *NJCM* (n 2).
[31] Case C-817/19 *Ligue des droits humains ASBL v Conseil des ministres* EU:C:2022:491.
[32] *Dun & Bradstreet* (n 26).

commercial confidentiality is legitimately engaged, the condition can be met through a confidentiality ring in which the applicant's legal and expert advisers see the material under undertakings, a practice well established in intellectual property and competition litigation and readily transferable to public law.[33] What the condition does not permit is a regime in which the holder of the knowledge decides unilaterally what the court and the applicant may see.

C. Third condition: access to independent expertise

The third condition is that the court must have access to expertise sufficient to understand the decision-critical knowledge, and that this expertise must not depend exclusively on either party. Disclosure without comprehension is not scrutiny. A court that receives source code, training data or a hydrological model that it cannot interpret is in no better position than a court that receives nothing, and arguably in a worse one, because formal compliance with disclosure may conceal the absence of understanding. Most procedural systems already provide the necessary tools: court-appointed experts, assessors sitting with the judge, single joint experts and the power to direct that expert evidence address specified questions. Their use in judicial review has been inhibited by the assumption that review is concerned with the legality of a decision rather than its merits, and that expert evidence is therefore admissible only to explain technical matters or to establish procedural error or a material mistake of fact. That assumption is sound as a limit on the court substituting its own technical judgment for that of the decision-maker. It is unsound as a limit on the court understanding the decision-maker's technical judgment well enough to review it. The distinction is between expertise as a substitute for the decision and expertise as a condition of reviewing it, and only the former offends the separation of functions on which review depends.

D. Fourth condition: reasons capable of being challenged

The fourth condition is that the reasons for the decision must extend through the decision-critical input rather than stopping at it. A statement that 'the applicant was assessed as high risk by the system' identifies the input but not the reasoning. A statement that the applicant was assessed as high risk principally because of identified factors, which the system weights in a described manner, and that the authority accepted the assessment for stated reasons, sets out a chain of reasoning that can be tested. The standard does not require the decision-maker to understand the internal mechanics of every technical system on which it relies, which would be neither achievable nor necessary. It requires the decision-maker to be able to state, in terms that an affected person can contest, which features of the case drove the outcome and why the authority regarded the technical input as reliable for that purpose. This is in substance the *Vavilov* requirement that reasoning be traceable without a fatal gap, applied to the gap that informational dependence creates.[34] It also corresponds to the Ghanaian constitutional requirement, considered in Part VIII, that discretion be exercised candidly.

E. The conditions summarised

Condition	What it requires	Principal existing support	Typical failure in dependent decisions
1. Complete, custodially secured record	Decision-critical inputs form part of the record; the authority holds an enforceable right of access and preserves the material	Rule 53 record (*Helen Suzman*); duty of candour; *Bridges*	Vendor owns model and logs; contract silent on audit; data not retained
2. Evidential access to test inputs	Access calibrated to the ground relied on, through disclosure, a confidentiality ring or inspection by the court	*Tweed*; *Dun & Bradstreet*; *Houston Federation of Teachers*	Trade secrecy asserted by a non-party; applicant sees only the output
3. Independent expertise	Court-appointed expert, assessor or single joint expert able to interpret the material	Ordinary procedural powers over expert evidence	Court receives material it cannot interpret and relies on the vendor's affidavit
4. Reasons capable of challenge	Reasons extend through the input to the features that drove the outcome	*Doody*; *Vavilov*; constitutional duties of fair and candid administration	Reasons end at 'the system assessed' or 'the consultant recommended'

F. The consequence of failure: a structured presumption against the opaque decision

The most important practical question is what a court should do when the Decision-Critical Knowledge Test is met, and one or more of the minimum conditions cannot be satisfied. The answer depends on why the condition fails. Where the failure is attributable to the public authority, because it contracted away its access to decision-critical knowledge, failed to preserve it, declined to seek it

[33] *Infederation* (n 25).
[34] *Vavilov* (n 21) [102].

from a cooperative holder, or relied on reasoning it cannot explain, the court should apply a structured presumption that the decision was not lawfully justified on the ground in issue. The presumption is rebuttable only by evidence that satisfies the missing condition. It is structured in three respects. It is ground-specific, applying only to the ground for which the missing knowledge is critical. It is rebuttable, so that the authority remains free to produce the knowledge, procure an independent audit, or otherwise satisfy the court. And it operates on the burden of justification rather than on the legal burden of proof in the technical sense. It reflects the principle, familiar from the law relating to the destruction or suppression of evidence and expressed in the maxim *omnia praesumuntur contra spoliatorem*, that a party who has made it impossible for the court to know the truth should not profit from that impossibility.[35]

Where the failure is not attributable to the authority, for example because the knowledge is genuinely unavailable to anyone, or because a legitimate overriding interest such as national security has been established and an adequate closed procedure has been exhausted, the presumption should not apply in the same form. The court must then decide whether the residual uncertainty is tolerable in light of the gravity of the interest affected and the availability of other safeguards. In cases involving liberty, livelihood, bodily integrity or fundamental rights, it should be slow to conclude that it is. The governing principle is that the default allocation of epistemic risk should follow responsibility for its creation. An authority that chooses to decide based on knowledge it does not control has adopted a form of governance whose costs should not fall on the person subject to it.

The structured presumption is less a novel invention than the generalization of a principle that courts already apply in fragments. It is implicit in the refusal of the SyRI court to accept that undisclosed safeguards were adequate; in *Bridges*, where the police force could not rely on the vendor's confidentiality to excuse its failure of verification; and in the long-standing rule that a public body which gives no reasons for a decision, where reasons would be expected, may find that the court infers that it had no good reason.[36] What the presumption adds is a coherent account of when the inference is warranted and how far it extends.

VII. OBJECTIONS AND LIMITS

Five objections require an answer.

The first is that the framework turns review into an appeal on the merits. If courts must understand technical models and expert assessments, the argument runs, they will begin to evaluate them, and the line between legality and merits that sustains the legitimacy of review will dissolve. The framework, however, concerns what the court must know, not what the court may decide. A court that understands why a model produced a particular score is no more entitled to substitute its own scoring method than a court that reads a planning inspector's report is entitled to substitute its own planning judgment. Understanding is a precondition of applying the existing grounds, not an extension of them. The alternative, in which courts preserve the distinction between legality and merits by declining to understand what they review, protects the form of that distinction at the expense of its purpose.

The second objection concerns legitimate commercial confidentiality. Vendors and consultants invest in proprietary methods, and a regime that exposed those methods whenever a decision was challenged might deter investment in public services and drive capable suppliers away from government work. The objection has force, but three considerations answer it. The minimum conditions do not require public disclosure, and confidentiality rings, inspection by the court and independent expert review allow commercial interests to be protected while the court acquires the knowledge it needs; this is the balance that *Dun & Bradstreet* requires national courts to strike. Suppliers who contract with the state to perform or inform public functions, moreover, do so knowing that public law obligations attach to those functions, and the non-transfer principle can be written into procurement terms prospectively, so that the obligation is priced and accepted rather than imposed after the event. Finally, the objection proves too much. If commercial confidentiality were sufficient to defeat review, the state could immunize any decision from scrutiny by routing its reasoning through a private supplier, a result that no constitutional order committed to the rule of law could accept.

The third objection is institutional. Courts, it may be said, lack the resources, time and technical capacity for the scrutiny the framework demands, and many judicial systems, including many in Africa, already struggle with heavy caseloads and limited budgets. The constraint is real, but it does not support the conclusion drawn from it. The framework does not require every court to become a technical tribunal. It requires that the means of acquiring understanding be available when the Decision-Critical Knowledge Test is met, which will be in a minority of cases. More fundamentally, the structured presumption is itself a response to limited judicial capacity, because it places the cost of acquiring knowledge on the public authority, which is best placed to bear it, rather than requiring the court to generate that knowledge. A court that cannot afford an expert can still decline to presume that an unexplained decision was lawful.

The fourth objection is that the framework will encourage strategic litigation, with applicants alleging epistemic deficiency in order to obtain wide-ranging disclosure or to impose costs on public authorities. The ground-dependence limb of the test is the principal safeguard. Because the applicant must identify a ground of review whose application genuinely turns on the inaccessible knowledge, a speculative request for disclosure unconnected to any arguable ground fails at the second limb. Courts already police analogous

[35] *Armory v Delamirie* (1722) 1 Str 505, 93 ER 664.

[36] *Padfield v Minister of Agriculture, Fisheries and Food* [1968] AC 997 (HL) 1032-33 (Lord Upjohn).

requests under *Tweed*, which confines disclosure to what is necessary to resolve the issues fairly and justly, and nothing in the framework displaces that discipline.

The fifth objection is the most philosophically serious. All decision-making involves reliance on knowledge the decision-maker cannot fully verify, from official statistics to scientific consensus reflected in professional guidance. The framework, it is said, therefore either proves too much or draws an arbitrary line between permissible and impermissible dependence. The answer lies in the distinction between dependence on knowledge that is publicly accountable and open to contest and dependence on knowledge that is privately held and insulated from contest. Official statistics and established scientific consensus rest on published methods, are produced by persons subject to professional or public accountability and can be challenged in open forums. A proprietary model or an applicant-funded assessment withheld from scrutiny has escaped those disciplines. The line the framework draws is therefore not between dependent and independent decision-making, which would indeed be arbitrary, but between dependence on knowledge that remains answerable and dependence on knowledge that does not.

The framework also has limits. It does not solve the problem of technical opacity that persists even where full access is available, as with complex machine learning systems whose internal reasoning resists explanation. For such systems, the fourth condition may, in some high-stakes settings, be incapable of being met, and the proper conclusion may be that they should not serve as decision-critical inputs where reviewable reasons are constitutionally required. Nor does the framework address whether private actors performing public functions should themselves be directly amenable to review, a question that different jurisdictions answer differently. It is concerned with the narrower and logically prior question whether decisions of public authorities that depend on private knowledge can be reviewed at all.

VIII. GHANA: CONSTITUTIONAL ANCHORING AND REFORM

The Ghanaian constitutional order provides a strong textual foundation for the argument that epistemic reviewability is a legal requirement. Three provisions of the 1992 Constitution bear directly on the question. Article 23 requires administrative bodies and officials to act fairly and reasonably and to comply with the requirements imposed on them by law, and it gives persons aggrieved by their acts and decisions the right to seek redress before a court or other tribunal. Article 296 provides that where the Constitution or any other law vests discretionary power in a person or authority, the power must be exercised in a manner that is fair and candid, and must not be arbitrary, capricious or biased by resentment, prejudice or personal dislike, but in accordance with due process of law. Article 21(1)(f) guarantees the right to information, subject to such qualifications and laws as are necessary in a democratic society.[37] Read together with the supervisory jurisdiction of the High Court under article 141 and its enforcement jurisdiction under article 33, these provisions establish that administrative decisions are not only formally reviewable but also that the quality of administrative reasoning is itself a constitutional standard against which they are measured.

The word 'candid' in article 296(a) is significant. Candour, in its ordinary meaning, is openness about one's reasons, and a discretion exercised candidly is one whose grounds are disclosed rather than concealed. It is difficult to see how a decision-maker can exercise discretion candidly if the decisive ground of its decision lies in a model or assessment that it neither understands nor can disclose. Article 296 thus supplies, in constitutional text, what English law has had to develop through the common law duty of candour and what the court in *Bridges* derived from a statutory equality duty: an obligation on the decision-maker to be in a position to account for its reasons. On the analysis advanced here, article 296(a) embodies the fourth minimum condition. It also supports the non-transfer principle underlying the first, because an authority that has contracted away its ability to know its own reasons cannot exercise its discretion candidly. Article 23's guarantee of a right to seek redress before a court likewise implies that the redress must be capable of being effective. The Supreme Court's decision in *Awuni v West African Examinations Council*, holding unlawful the cancellation of candidates' examination results without affording them a fair opportunity to respond, reflects the understanding that administrative justice requires that the person affected be able to engage with the basis of the decision against him or her.[38]

The statutory framework is less complete. The Right to Information Act 2019 (Act 989) implements article 21(1)(f), but it exempts from disclosure certain economic information of third parties, which is precisely the kind of information that informational dependence places at the centre of contested decisions.[39] The Act's public interest provision, which removes an exemption where disclosure would reveal evidence of, among other things, a contravention of the law or an abuse of authority, mitigates the difficulty. It nonetheless places on the applicant the burden of showing that the withheld information would reveal such evidence, which is the very knowledge the applicant lacks.[40] The Data Protection Act 2012 (Act 843) confers rights in relation to automated decision-making, but those rights are framed as rights of data subjects against data controllers rather than as conditions of judicial review,

[37]Constitution of the Republic of Ghana 1992, arts 21(1)(f), 23, 33, 141 and 296.
[38]*Awuni v West African Examinations Council* [2003-2004] 1 SCGLR 471.
[39]Right to Information Act 2019 (Act 989), s 11.
[40]ibid s 17.

and they do not reach decisions that rest on non-personal technical knowledge such as engineering or environmental assessments.[41] The Public Procurement Act 2003 (Act 663), as amended, governs the award and management of public contracts but does not require contracting authorities to secure, as a term of contract, the access to decision-critical knowledge that review may demand.[42] The Evidence Act 1975 (NRCD 323) and the rules governing applications for judicial review in the High Court provide the ordinary tools of expert evidence and discovery, but they were not designed with informational dependence in view.[43]

A Ghanaian court confronted with a decision resting on a proprietary system or a privately held assessment therefore has the constitutional warrant to insist on epistemic reviewability but lacks a developed procedural and statutory apparatus for securing it. Four reforms would close the gap, each corresponding to one of the minimum conditions.

First, a practice direction issued by the Chief Justice, or an amendment to the rules of court made by the Rules of Court Committee under article 157 of the Constitution, could govern applications for judicial review in which the respondent's decision rests materially on information held by a third party.[44] It would require the respondent to identify at the outset the decision-critical inputs on which it relied and the person who holds them; empower the court to order production by that person, subject to appropriate confidentiality protection; and make clear that the respondent's inability to produce decision-critical information is a matter the court may take into account in deciding whether the decision is justified. This would give procedural form to the first and second conditions and to the structured presumption.

Secondly, the Public Procurement Authority could issue standard tender and contract documents for the procurement of decision-support systems, technical assessments and outsourced administrative functions. Those documents would require suppliers to preserve, and to produce on the order of a court or at the request of the contracting authority, the information needed to explain and audit any output on which a public decision is based. They would also confine a supplier's confidentiality claims to protection through a confidentiality ring rather than refusal of production. Terms of this kind would implement the non-transfer principle prospectively and allow suppliers to price the obligation into their bids, which meets much of the commercial objection considered in Part VII.

Thirdly, the courts should make greater use of independent expertise in judicial review, whether by appointing experts on specified questions, by sitting with assessors where the governing legislation permits, or by directing the parties to instruct a single joint expert. The experience of the Ghanaian courts with technical evidence in commercial, land and electoral litigation provides a foundation. Developing the third condition requires less new legislation than a recognition that understanding a technical decision is distinct from deciding it afresh.

Fourthly, Parliament should provide, in any legislation on emerging technologies and automated public decision-making, that a public authority may not rely, as a decision-critical input to a decision affecting rights or legitimate interests, on a system or assessment whose basis it is not legally and practically able to explain to an affected person and to a court. Such a provision would give statutory form to the fourth condition and make clear that the constitutional obligation of candour under article 296 cannot be outsourced.

These reforms are modest in the sense that they work through existing institutions, existing constitutional text and existing procedural powers. Their importance lies in timing. Ghana, like many African states, is rapidly digitizing public administration, from national identification and revenue systems to electronic case management in the courts, and much of that infrastructure is procured from private and often foreign suppliers. The period within which the terms of that digitization can be shaped to preserve epistemic reviewability is shorter than it appears, because once systems are embedded and contracts concluded, the cost of retrofitting reviewability greatly exceeds the cost of designing it in at the outset.

IX. CONCLUSION

Judicial review has long been defended as the means by which the law keeps public power within its limits, and the doctrinal energy of public law has been directed largely at preserving the court's formal capacity to perform that function against legislative ouster, executive resistance and restrictive rules of standing and justiciability. This article has argued that a different threat now presses harder. It does not deny the court's jurisdiction. It deprives the court of the knowledge without which jurisdiction cannot be exercised. The threat arises wherever decision-critical knowledge is produced outside the answerable institution: in outsourced administration, in expert-led regulation, in algorithm-assisted decision-making and in the procurement-dependent state. It has so far been met by a set of doctrines, namely candour, the record, reasons, deference and confidentiality procedures, each of which assumes that the others are working.

[41]Data Protection Act 2012 (Act 843), s 41.

[42]Public Procurement Act 2003 (Act 663), as amended by the Public Procurement (Amendment) Act 2016 (Act 914).

[43]Evidence Act 1975 (NRCD 323), s 112; High Court (Civil Procedure) Rules 2004 (CI 47), Order 55.

[44]Constitution of the Republic of Ghana 1992, art 157.

The distinction between formal and epistemic reviewability allows the problem to be seen as a single problem. The Decision-Critical Knowledge Test identifies when informational dependence passes from difficulty into failure: when the inaccessible knowledge is critical to the decision, when the ground of challenge depends on it, when no adequate substitute is available, and when the court resolves its resulting ignorance by deferring to the decision-maker instead of drawing an inference against it. The four minimum informational conditions specify what meaningful scrutiny requires, and the structured presumption against the opaque decision allocates the risk of their failure to the institution that created it.

The argument is, finally, a claim about responsibility. A public authority that decides through knowledge it does not hold, understand, or control has made a choice about the form of its own governance, and it may make that choice for reasons of efficiency, expertise or cost. It may not make it in a way that leaves the person affected, and the court that protects that person, with no means of knowing why the decision was taken. In a constitutional order such as Ghana's, where the duty to exercise discretion fairly and candidly is written into the Constitution, that conclusion is not a policy preference but a requirement of law. The question is therefore no longer whether courts can review decisions whose critical knowledge is held by private actors. It is whether they will insist on the conditions that make such review possible, and accept the consequences when those conditions are absent.

REFERENCES

1) Houston Federation of Teachers, Local 2415 v Houston Independent School District 251 F Supp 3d 1168 (SD Tex 2017). The litigation was later settled on terms under which the district agreed to stop using the scores as a basis for termination.
2) Nederlands Juristen Comité voor de Mensenrechten (NJCM) v State of the Netherlands, District Court of The Hague, 5 February 2020, ECLI:NL:RBDHA:2020:1878 (English translation). SyRI (Systeem Risico Indicatie) was a statutory system for linking government data in order to identify persons at risk of committing benefits and tax fraud.
3) See eg Danielle Keats Citron, 'Technological Due Process' (2008) 85 Washington University Law Review 1249; Marion Oswald, 'Algorithm-Assisted Decision-Making in the Public Sector: Framing the Issues Using Administrative Law Rules Governing Discretionary Power' (2018) 376 Philosophical Transactions of the Royal Society A 20170359; Jennifer Cobbe, 'Administrative Law and the Machines of Government: Judicial Review of Automated Public-Sector Decision-Making' (2019) 39 Legal Studies 636.
4) Constitution of the Republic of Ghana 1992, arts 23 and 296.
5) Jody Freeman, 'The Private Role in Public Governance' (2000) 75 New York University Law Review 543.
6) Sheila Jasanoff, The Fifth Branch: Science Advisers as Policymakers (Harvard University Press 1990); Elizabeth Fisher, Risk Regulation and Administrative Constitutionalism (Hart Publishing 2007).
7) The typology adapts Jenna Burrell, 'How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms' (2016) 3(1) Big Data & Society 1, which distinguishes opacity arising from intentional secrecy, from technical illiteracy and from the inherent complexity of the models.
8) Frank Pasquale, The Black Box Society: The Secret Algorithms That Control Money and Information (Harvard University Press 2015); Rebecca Wexler, 'Life, Liberty, and Trade Secrets: Intellectual Property in the Criminal Justice System' (2018) 70 Stanford Law Review 1343.
9) State v Loomis 2016 WI 68, 881 NW 2d 749.
10) For litigation arising from procured national digital identity infrastructure, see Nubian Rights Forum v Attorney General [2020] eKLR (High Court of Kenya, Consolidated Petitions 56, 58 and 59 of 2019).
11) Anisminic Ltd v Foreign Compensation Commission [1969] 2 AC 147 (HL); R (Privacy International) v Investigatory Powers Tribunal [2019] UKSC 22, [2020] AC 491.
12) Miranda Fricker, Epistemic Injustice: Power and the Ethics of Knowing (Oxford University Press 2007) ch 7.
13) Kwasi Wiredu, Cultural Universals and Particulars: An African Perspective (Indiana University Press 1996), especially the essay on democracy and consensus in African traditional politics.
14) R v Lancashire County Council, ex p Huddleston [1986] 2 All ER 941 (CA) 945.
15) Belize Alliance of Conservation Non-Governmental Organisations v Department of the Environment [2004] UKPC 6, [2004] Env LR 38 [86]; Tweed v Parades Commission for Northern Ireland [2006] UKHL 53, [2007] 1 AC 650.
16) R (Bridges) v Chief Constable of South Wales Police [2020] EWCA Civ 1058, [2020] 1 WLR 5037 [199]-[201].
17) Citizens to Preserve Overton Park Inc v Volpe 401 US 402, 420 (1971); Motor Vehicle Manufacturers Association v State Farm Mutual Automobile Insurance Co 463 US 29, 43 (1983).
18) Department of Commerce v New York 588 US 752 (2019).
19) Helen Suzman Foundation v Judicial Service Commission [2018] ZACC 8, 2018 (4) SA 1 (CC); Uniform Rules of Court, r 53.
20) R v Secretary of State for the Home Department, ex p Doody [1994] 1 AC 531 (HL).
21) Canada (Minister of Citizenship and Immigration) v Vavilov 2019 SCC 65, [2019] 4 SCR 653 [99]-[102].

22) South Buckinghamshire District Council v Porter (No 2) [2004] UKHL 33, [2004] 1 WLR 1953 [36].
23) R (Lord Carlile of Berriew) v Secretary of State for the Home Department [2014] UKSC 60, [2015] AC 945.
24) Loper Bright Enterprises v Raimondo 603 US 369 (2024), overruling Chevron USA Inc v Natural Resources Defense Council Inc 467 US 837 (1984).
25) Justice and Security Act 2013 (UK), pt 2; Charkaoui v Canada (Citizenship and Immigration) 2007 SCC 9, [2007] 1 SCR 350; on confidentiality rings, see Infederation Ltd v Google LLC [2020] EWHC 657 (Ch).
26) Case C-203/22 CK v Dun & Bradstreet Austria GmbH (CJEU, 27 February 2025); see also Court of Justice of the European Union, Press Release No 22/25 (27 February 2025).
27) Al Rawi v Security Service [2011] UKSC 34, [2012] 1 AC 531.
28) Loomis (n 9).
29) Houston Federation of Teachers (n 1); Banks v Federal Aviation Administration 687 F 2d 92 (5th Cir 1982).
30) NJCM (n 2).
31) Case C-817/19 Ligue des droits humains ASBL v Conseil des ministres EU:C:2022:491.
32) Dun & Bradstreet (n 26).
33) Infederation (n 25).
34) Vavilov (n 21) [102].
35) Armory v Delamirie (1722) 1 Str 505, 93 ER 664.
36) Padfield v Minister of Agriculture, Fisheries and Food [1968] AC 997 (HL) 1032-33 (Lord Upjohn).
37) Constitution of the Republic of Ghana 1992, arts 21(1)(f), 23, 33, 141 and 296.
38) Awuni v West African Examinations Council [2003-2004] 1 SCGLR 471.
39) Right to Information Act 2019 (Act 989), s 11.
40) ibid s 17.
41) Data Protection Act 2012 (Act 843), s 41.
42) Public Procurement Act 2003 (Act 663), as amended by the Public Procurement (Amendment) Act 2016 (Act 914).
43) Evidence Act 1975 (NRCD 323), s 112; High Court (Civil Procedure) Rules 2004 (CI 47), Order 55.
44) Constitution of the Republic of Ghana 1992, art 157.