

Algorithmic Responsibility Record (ARR)



Purpose

The Algorithmic Responsibility Record (ARR) is a pre-incident governance artefact designed to document responsibility for algorithmic decision systems prior to deployment.

ARR exists to ensure that, when algorithmic systems are used in consequential contexts, responsibility is explicitly assigned, bounded, and recorded in advance of use.

ARR does not seek to optimise model performance, explain individual outputs, or assess ethical alignment. Its sole function is to make responsibility legible under scrutiny.

When something goes wrong, institutions are judged on what they recorded *before* deployment — not on what they can explain afterward.

ARR exists for one reason:



2. Scope

This standard applies to algorithmic systems that:

- influence or determine consequential outcomes
- operate within organisational, regulatory, or legal contexts
- may reasonably be subject to post-incident scrutiny

ARR is system-agnostic and model-agnostic.

3. Definition

An Algorithmic Responsibility Record is a structured record that documents:

- the decision being delegated or influenced by an algorithmic system
- the authorised scope of that system
- the human authorities responsible for its use
- the risks knowingly accepted at the point of deployment

4. Core Principle

Responsibility that is not recorded in advance is rarely believed afterward.

5. Required Record Components

An ARR must include, at minimum, the following elements.

1. Decision Identity

A clear description of the decision or decision class to which the system applies.

2. System Provenance

Identification of the system, including model name or identifier, version, and relevant dependencies.

3. Decision Boundaries

Explicit definition of:

- permitted actions
- prohibited actions
- conditions under which the system must not operate

4. Oversight and Escalation

Specification of:

- human oversight mechanisms
- escalation thresholds
- procedures for intervention or suspension

5. Risk Acceptance

Explicit acknowledgment of:

- known risks
- residual uncertainty
- trade-offs accepted at deployment

6. Override Authority

Identification of:

- who may override system outputs
- under what conditions
- with what authority

7. Attestation of Responsibility

Formal attestation by an accountable individual or body confirming acceptance of responsibility for the system's authorised use.

6. Timing

ARR must be completed prior to deployment of the algorithmic system.

Post-hoc reconstruction of responsibility does not constitute compliance with this standard.

7. Use under Scrutiny

ARR is designed to be examined under:

- regulatory review
- internal audit
- legal proceedings
- public or investigative inquiry

The presence of an ARR does not absolve liability.

The absence of an ARR materially weakens claims of responsible governance.

8. Relationship to Other Artefacts

ARR may coexist with:

- model documentation
- risk assessments
- impact assessments
- compliance records

ARR does not replace these artefacts and is not replaced by them.

9. Status and Evolution

This document represents Practitioner Standard v0.1.

It is intentionally narrow and provisional.

Revisions will prioritise clarity, restraint, and auditability over completeness.

10. Stewardship

ARR is developed and stewarded by **Nojan Jadidi**.