BOUNDARY MAP

Where do this AI system's actions land, and what governance does each action require?

THE BOUNDARY FRAMEWORK | v1.0
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IMPLEMENTATION (IMP)
Consequences occur in the physical world: equipment, materials, environments.
Extend safety engineering. High autonomy within a safety regime.

INSTITUTIONAL (INS)
Consequences occur in legal, contractual, financial, or organizational structures.
Conditional autonomy. Trace every action to a responsible principal.

NORMATIVE (NOR)
Consequences shape an outcome for a particular person: access, livelihood, liberty, fair treatment.
Preserved human agency. A person takes the consequential action.

1 THE DEPLOYMENT

System or deployment

Accountable principal (person or unit)

Goal the system is authorized to pursue

Prepared by | Date

2 ACTIONS AND BOUNDARIES

List each action separately, including sub-actions the system could reasonably generate.

#	Action or foreseeable sub-action	Who or what is affected	Boundary IMP / INS / NOR	Significance Min / Mod / Sig	Class 1 / 2 / 3S / 3I / 3N	Governance response
1						
2						
3						
4						
5						
6						
7						
8						

Classify by where consequences fall. An action that determines an outcome for a particular person is normative when the consequence is more than minor, even if it runs through a database or payment system. When an action engages two boundary types, apply both governance responses and the higher class.

3 CROSSING CHECK

Could the system, in pursuing its goal, take actions at a boundary type other than the one where its goal is defined? If yes, add them to Section 2. ☐ Yes ☐ No ☐ Unsure

Is every normative action routed to a human decision-maker before it takes effect, by design? ☐ Yes ☐ No ☐ Unsure

Are any recommendations adopted routinely or without substantive review? If yes, treat them as actions. ☐ Yes ☐ No ☐ Unsure

Notes on possible crossings

4 RESULT AND COMMITMENTS

Deployment class (highest class of any action)

Human decision-maker(s) for normative actions

Escalation built into the design (how crossings reach a person)

Review triggers | Next review date

SIGNIFICANCE

Min: small, readily reversed, quickly visible. **Mod:** real cost, correctable through ordinary process. **Sig:** severe, hard to reverse, broad, or slow to detect; or affects rights, livelihood, liberty, health, safety, or essential services.

CLASSES

1 Routine: autonomous with monitoring. **2** Elevated: autonomy within set parameters, traced and reviewed. **3S** Safety-critical: full safety assurance. **3I** Interpretive: human approval before effect. **3N** Normative: a person decides.

HUMAN DECISION AT NOR

The decision-maker needs access to the particulars of the case, authority to decide otherwise, time to consider it, and an understanding of what the system relied on. Affected people can be heard and can contest the decision.

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