Mantrika Way Series 1

MANTRIKA.AI

Why Algorithms Matter in AI

(especially in HR)

From intuition to institutional intelligence:
The missing playbook for people decisions.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Algorithms are the Steering Wheel

AI is often misunderstood as just models or data. In reality, algorithms provide the critical decision logic.

Data is the fuel

Models are the engine

Algorithms are the steering wheel

In HR and people decisions, algorithms determine:

- What signals matter among thousands of data points
- How trade-offs are made between conflicting goals
- When to intervene versus letting things play out
- Who gets impacted by the final decision

© Mantrika.ai | All rights reserved

Without vs With Strong Algorithms

AI is often misunderstood as just models or data. In reality, algorithms provide the critical decision logic.

Without clear Algorithm

- AI becomes just a fancy reporting tool rather than a decision engine.
- Bias creeps in silently* through unmanaged data signals.
- Decisions feel "black-box" and untrustworthy to employees.
- Leaders don't act on insights due to lack of confidence.

Result: Reactive Chaos

With clear Algorithm

- Decisions become repeatable, explainable, and scalable.
- Tacit HR intuition transforms into institutional intelligence.
- People decisions shift from reactive to predictive.
- Fairness is engineered directly into the logic flow.

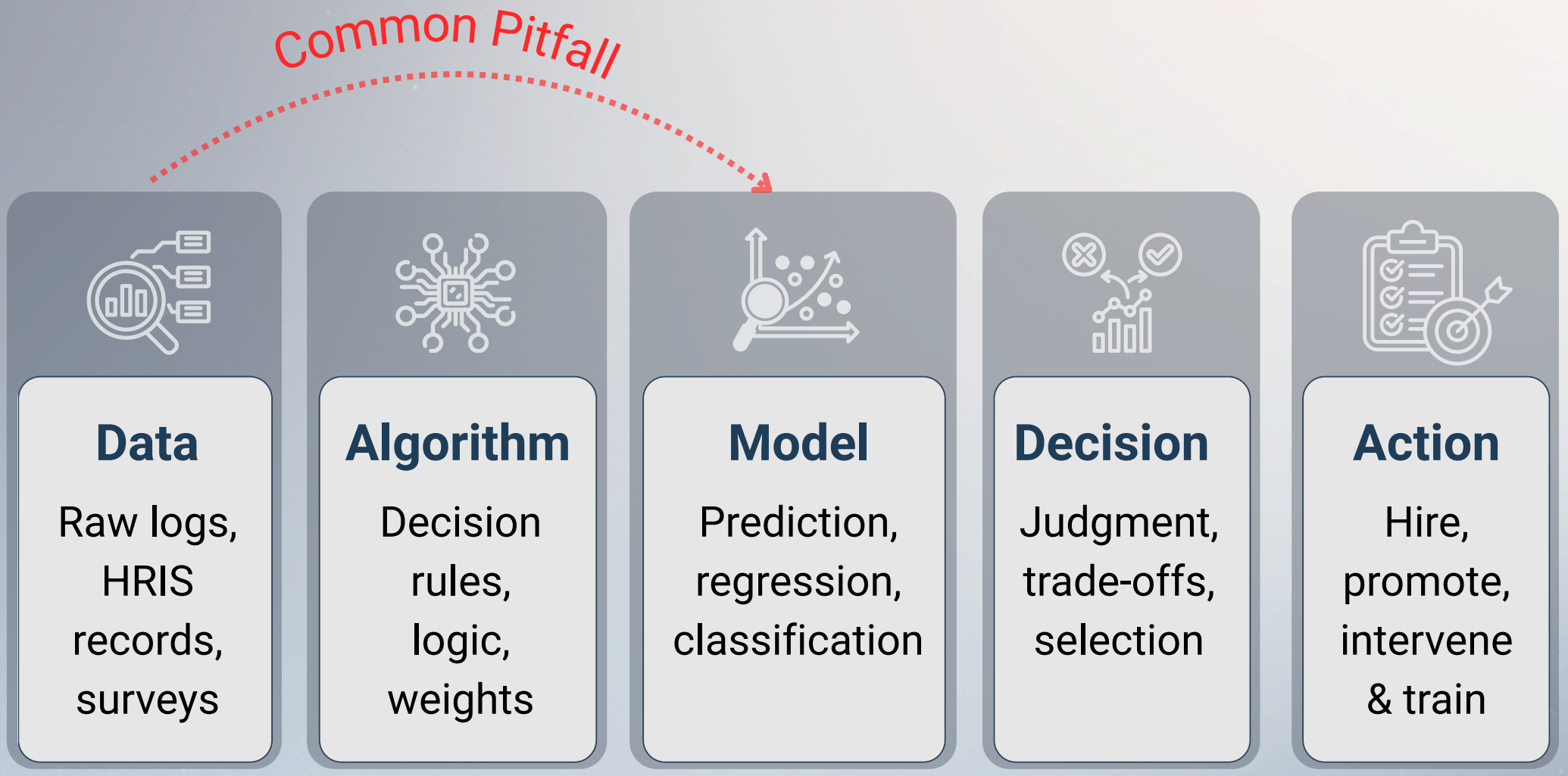
Result: Strategic Foresight

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Where Algorithms Sit in HR AI

From raw signals to real-world impact: understanding the decision chain.



Most HR teams jump straight from Data → Model
This skips the Algorithmic Playbook—the essential layer where business logic, fairness constraints, and outcome definitions are encoded before the machine starts learning.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

The Missing Manual

HR Algorithm Playbook

A practical guide to documenting, testing, and scaling decision logic. We've defined the "why" — now let's build the "how".

Purpose

To move from "black box" AI models to explainable, intentional decision systems that leaders trust.

Core Principle

One Algorithm = One Decision. Don't boil the ocean. Solve specific people problems with precision.

Outcomes

Clarity in criteria, fairness in execution, and faster adoption by HR business partners.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Step 1

Start with a PEOPLE DECISION

Focus on solving specific problems rather than finding places to apply technology.

Bad Question

Where can we use AI in HR?

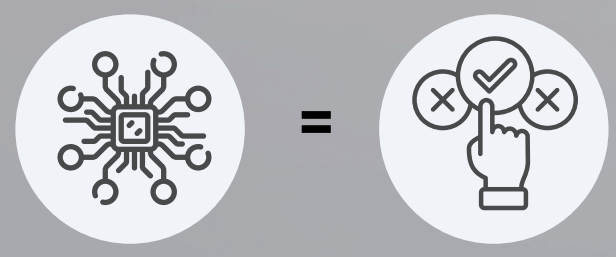
Good Question

What decision do we repeatedly get wrong, late, or emotional?

High-value HR Decisions to Target

- Who should we hire?
- Who will perform well in 6–12 months?
- Who is likely to attrite?
- Who should be promoted?
- Where is manager effectiveness breaking down?
- Which teams are heading to burnout?

The Golden Rule



One Algorithm = One Decision

Why this matters

Algorithms that try to solve multiple decisions at once (e.g., "Manage Talent") fail because the signals for hiring are different from the signals for retention.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Step 2

Define the Outcome Variable (North Star)

Translate the business problem into a single, measurable metric.

Rule of Thumb

If you can’t clearly define success, don’t build AI.

Mapping Decisions to Specific Outcomes

Hiring	→	90-day performance rating
Attrition	→	Voluntary exit within 6 months
Promotion	→	Role success rating post-move
Learning	→	Skill application on job

North Star

One Algorithm = One Outcome

Algorithms optimize for what you tell them to. If you tell them to optimize for "retention" AND "performance" simultaneously without a primary variable, the model will fail to converge on a coherent strategy.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

STEP 3

Decompose the decision like a CHRO thinks

Great HR leaders already use mental algorithms — they're just undocumented.

Make the implicit explicit by asking:

- What signals do we implicitly trust?
- What are red flags we ignore?
- What trade-offs do we make subconsciously?

Human Intuition	→	Algorithmic Signal
"Seems adaptable"	→	Role change frequency, learning velocity
"Strong cultural fit"	→	Value-aligned behaviors, peer feedback
"Handles pressure"	→	Deadline adherence, workload spikes
"Manager potential"	→	Collaboration graph, sentiment

From Gut Feel to Data Logic

The Goal:

- Don't just automate the process.
- Automate the best version of the decision-making logic.

The Translation Layer

Algorithms convert subjective intuition into objective, repeatable logic.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Step 4

Identify SIGNAL CATEGORIES (not raw data)

Algorithms work on meaningful signals, not just raw spreadsheets.

The Mistake

"Let's dump all HR data into the model."

The Solution

"Define signal buckets first."

Core HR Signal Buckets

1. Capability
Skills, experience, certifications, mastery level

2. Behavior
Actions, work patterns, consistency, responsiveness

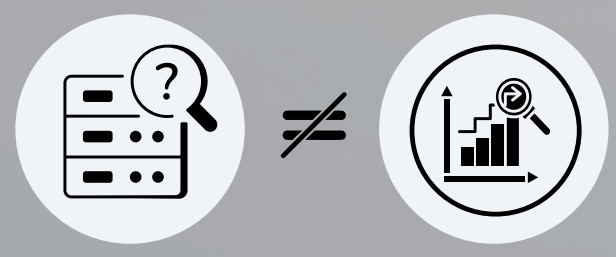
3. Context
Role, manager quality, team size, environment

4. Trajectory
Rate of improvement, stagnation, or decline

5. Engagement
Sentiment, participation, energy, feedback

6. Risk
Fatigue signs, volatility, sudden disengagement

Data vs. Signals



Raw Data ≠ Predictive Signal

Why this matters

Raw data (e.g., "clocked in at 9:05") is noise. A signal (e.g., "lateness pattern increasing") is predictive intelligence. Models need signals, not just rows.

© Mantrika.ai | All rights reserved

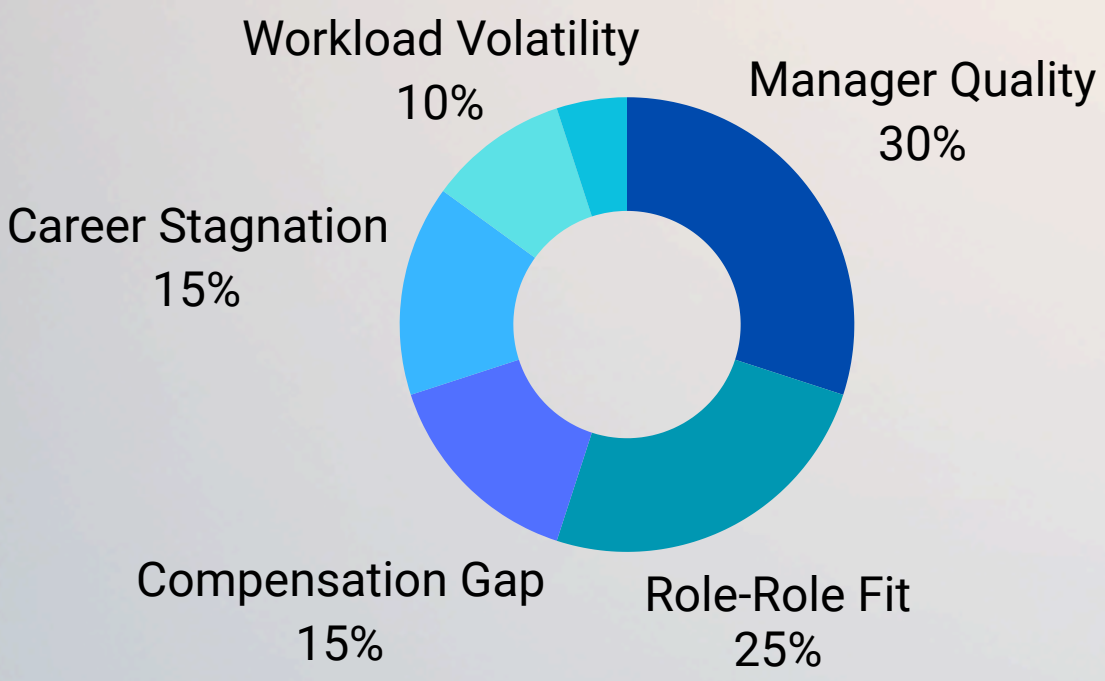
MANTRIKA.AI

Step 5

Assign WEIGHTS like a business leader

Prioritize signals based on business context, not just statistical correlation.

Example : Attrition Risk Model Weights



Explainable

Can you justify why manager quality matters more than commute time?

Context-Dependent

Sales attrition drivers differ from Engineering attrition drivers.

Adjustable

Weights should shift as business strategy changes (e.g., during a merger).

Leadership Judgement Zone

This is where human intuition meets data. Don't let the machine decide what's most important—tell it.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

STEP 6

Encode DECISION RULES (before ML)

Define clear logic before applying complex models to build trust and transparency.

Example Logic: Translating Strategy into Code

IF (Situation)

attrition_risk > 70% AND performance == "high"

→ Trigger: Immediate Manager Intervention

IF (Situation)

learning_velocity < threshold FOR 2_cycles

→ Trigger: Suggest Reskill Pathway

IF (Situation)

promo_readiness == "high" BUT org_readiness == "low"

→ Trigger: Tag for "Talent Pool" & Retention Risk

This creates:

- Trust
- Transperancy
- Faster Adoption

Why Rules First?

Employees trust what they can understand. Rules are transparent; black boxes are not.

You can explain exactly why a decision was flagged, satisfying legal and ethical standards.

Leaders adopt "codified intuition" faster than "AI magic."

"Don't let the model guess your business rules. Tell it explicitly."

© Mantrika.ai | All rights reserved

MANTRIKA.AI

STEP 7

Choose the RIGHT MODEL (after algorithm clarity)

Only select your mathematical engine after the decision logic is clearly defined.

Match Problem Type to Model Architecture

Prediction	→	Regression, XGBoost
Classification	→	Logistic Regression, Random Forest
Pattern Discovery	→	K-Means Clustering
Recommendations	→	Collaborative Filtering
Sentiment	→	NLP Transformers (BERT/GPT)

The Hierarchy

Algorithm
Decision Logic & Strategy

↓

Model
Mathematical Execution

The "Engine" Reality

Models execute algorithms — they don't replace them. A powerful model running a flawed decision algorithm just scales bad decisions faster.

© Mantrika.ai | All rights reserved

Step 8

Add HUMAN-IN-THE-LOOP Checkpoints

In HR, automation without judgment is dangerous. Design intentional oversight.

3 Levels of AI Interaction

Assistive AI (High Touch)

AI suggests data or options; Human makes the decision. Best for high-stakes roles or complex cases.

Advisory AI (Medium Touch)

AI recommends specific action with explanation; Human must confirm or reject.

Autonomous AI (Low Touch)

AI executes action; Human reviews periodically. Only for low-risk, reversible tasks (e.g., scheduling).

Critical Safeguards for Every Algorithm

- **Human Override Button**
- **Explainability View**
- **Feedback Mechanism**
- **Decision Audit Trail**

The Trust Chain

AI Model
Prediction & Probability

↓

HR Leader
Context, Empathy, Ethics

↓

Final Decision
Trusted & Fair

© Mantrika.ai | All rights reserved

Step 9

MANTRIKA.AI

Build FEEDBACK LOOPS (algorithm learns)

Transform static predictions into dynamic organizational wisdom.

The 4 Critical Feedback Questions

Was the prediction right?

Compare the model's score against actual performance data (e.g., 90-day review).

Did the intervention work?

Did acting on the insight actually change the outcome (e.g., reduce attrition)?

Did bias emerge?

Monitor if error rates are drifting for specific demographic groups over time.

Did outcomes improve?

Verify business impact beyond just model accuracy metrics.

Maturation Path:

Rules → Intelligence → Wisdom

The Learning Cycle

Prediction → Action
Action → Data
Data → Update

The "Set and Forget" Trap

Most HR models fail because they are treated as one-time deployments instead of continuously learning systems.

© Mantrika.ai | All rights reserved

Step 10

MANTRIKA.AI

Governance, ethics, and trust layer

Ensuring your algorithms are safe, fair, and legally compliant.

Avoid "Black Box" AI

Decisions are opaque, unexplainable, and breed suspicion.

Build "Glass Box" AI

Decisions are transparent, auditable, and build confidence.

Essential Trust Guardrails

Bias Audits & Fairness Metrics

Rigorous testing for disparate impact before deployment.

Explainability Dashboards

Clear visualization of why a model recommended a decision.

Regulatory Alignment

Compliance with GDPR, NYC 144, EU AI Act, and local labor laws.

Trust is the Currency of Adoption

The Silent Failure Mode

AI that employees don’t trust will not be used — no matter how accurate it is.

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Template v1.0

HR Algorithm Canvas

Design blueprint for people-decision algorithms

Decision to Solve

(What specific people decision are we automating or augmenting?)

Outcome Metric (North Star)

(How do we measure success? e.g., 90-day retention)

Signals (Data Inputs)

(List core signal categories: Capability, Behavior, Context, Trajectory...)

Weights & Priorities

(Which signals matter most? e.g., Manager Quality (30%))

Decision Rules (If-Then Logic)

(Define clear business rules before ML. IF risk > 80% THEN...)

Model Type

(Regression, Classification, NLP, etc.)

Human Checkpoints

(Where does a human intervene?)

Feedback Loop

(How does the system learn from outcomes?)

Ethical Guardrails

(Fairness metrics, bias audits, explainability requirements)

© Mantrika.ai | All rights reserved

MANTRIKA.AI

Final Thought

Scale Fairness & Foresight

HR algorithms are not about replacing empathy. They are about scaling fairness, consistency, and foresight across the entire organization.

> *"The real power move is not 'AI in HR' — it's institutionalizing your best people judgment into algorithms."*

Sreekanth K Arimanithaya
Founder, Mantrika.AI

HR Algorithm Playbook

© Mantrika.ai | All rights reserved