movate

CXO PERSPECTIVE

FROM ANALYTICS TO *DECISIONS*

Applying Decision Theory to Modern Tech Support Operations

"Where should we intervene right now?"

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01. Where should we intervene right now?

The modern support operations have shifted from data-related issues to ones involving the decisions that need to be made. Although support leaders now have many dashboards, alerts, and KPIs available to make quick and informed decisions, what continues to create problems for them is not having clarity on which signals/alerts need to be acted on right now.

When we have lots of signals but not enough time to react to them, we will fail in performance, not due to blind spots, but due to indecision.

This is where we see a disconnect between analytics and action. Closing this gap requires rethinking analytics as a reporting tool to create a decision system for speed, focus, and impact.

02. **The Challenge:** Decision Latency

Most technology leaders don't suffer from a lack of data. They suffer from **decision latency**.

Analytics teams are constantly delivering active report outputs to their end-users promptly, while the enormous amount of KPI tracking being done by operations teams creates a huge backlog of information needing to be processed into actionable intelligence. Thus, decision latency occurs due to the fact that the processes for producing analytics have been designed for measurement purposes, not for being an input to the decision-making processes.

Today, support operations can be defined by 3 distinct realities.

1

Attention is scarce

Leaders can only focus on a few key things at any given time. Many metrics compete for a small amount of an executive's attention, and this creates an inability to take any action when every metric is considered "important".

2

Data is imperfect

Ticket hygiene gaps, incomplete documentation, and mixed issue types are not anomalies; they are structural realities. Waiting for "clean data" delays action indefinitely.

3

Speed beats precision

A timely, 80% accurate decision consistently outperforms a perfect forensic analysis made at a later date. Most analytical solutions value speed over accuracy.

In this way, **decision theory provides** the best lens through which to make decisions.

03. Decision Theory as an Operating Lens

At its core, decision theory asks three fundamental questions:

Q1. What decisions matter most?

Q2. What information meaningfully reduces uncertainty?

Q3. Who should act—humans or systems—and when?

In using an analytical lens for tech support, the information that would traditionally be classified as "reporting" has now moved to more of a systems-based approach involving decisions instead of the categories of analytics (descriptive, diagnostic, predictive, prescriptive) or "decision classes" as defined by CXOs.

04. Reframing Analytics as Decision Classes

Instead of thinking in terms of descriptive, diagnostic, predictive, and prescriptive analytics, think in terms of **decision classes**.

#	Intelligence Type	Core Decision Question
1	Descriptive	Are we within safe bounds—or drifting?
2	Diagnostic	Which problems are worth fixing now?
3	Predictive	Where will inaction hurt us next?
4	Prescriptive	What should be automated vs. human?
5	Cognitive	What patterns exist beyond human perception?

Decision Class 1 | DESCRIPTIVE INTELLIGENCE

Situational Awareness, Not Retrospective Reporting

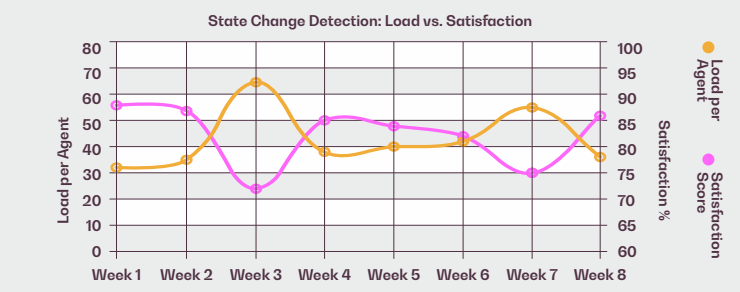
Decision Question: Are we operating within safe bounds—or drifting into risk?

Descriptive intelligence is less about the weekly averages or historical trends; it is rather your situational awareness, akin to the cockpit of an Aircraft.

With real operations, satisfaction does not have the gradual degradation of an operation's load. It usually almost collapses for your operational load at certain points in your operational history outside of your tactical gauges. These are not trends; these are states of change that require immediate intervention.

DECISION-THEORY INSIGHT
Descriptive analytics is valuable only if it helps leaders distinguish normal variance from states that require intervention or action.

WHY AI MATTERS
Humans miss weak signals in noisy systems. AI continuously normalizes data, flags anomalies, and surfaces boundary breaches in near real-time—reducing decision latency.



Decision Class 2 | DIAGNOSTIC INTELLIGENCE

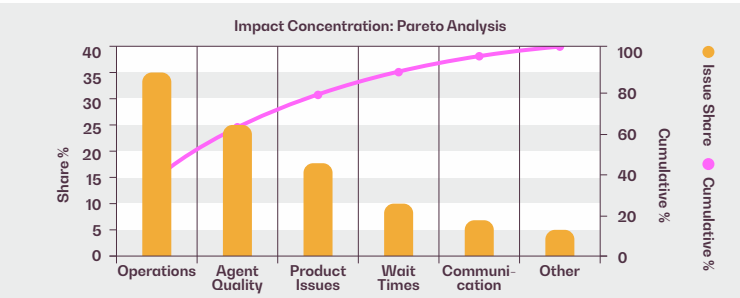
Decision Focus, Not Root-Cause Perfection

Decision Question: Which problems are worth fixing now?

While theoretically speaking, diagnostic analytics seeks to explain the cause of an event, in practice, there are very few instances of perfect causality, and as a result, having perfect causality isn't critical; it is critical to understand which issues impact the highest amount of customer experiences. Instead of asking the question "What went wrong?" we need to reframe that question and ask "Which levers produce the largest impact and fastest improvement?"

DECISION-THEORY INSIGHT
Diagnostic analytics should maximize actionability, not explanatory depth. Pareto concentration enables strategic focus.

WHY AI MATTERS
AI clustering and pattern detection surface dominant failure modes even when data is incomplete, inconsistently tagged, or messy—conditions under which traditional analysis fails.



Decision Class 3 | PREDICTIVE INTELLIGENCE

Managing Risk, Not Forecasting Volume

Decision Question: Where will inaction hurt us next?

There are many instances where predictive analytics is used incorrectly as a way to predict future call volumes, but where it is truly powerful is in its ability to help anticipate risk. Several leading indicators appear once you know what they are:

1) An agent's load can predict when customers are going to be dissatisfied before any surveys are released.

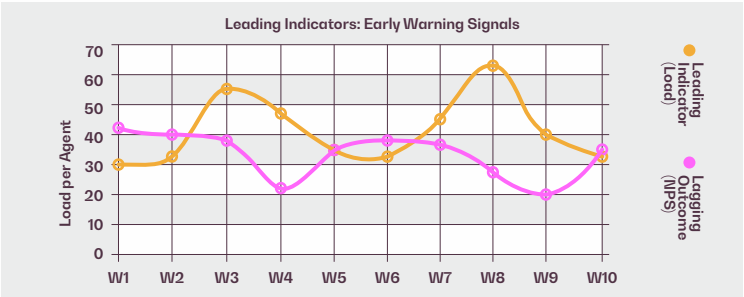
2) Sudden spikes in escalation mean that there is likely going to be a break somewhere in the process.

3) A large product diversity will likely create knowledge stress and increase the likelihood of inconsistency.

While none of these indicators can give you a 100% accurate future prediction, they will do enough to lower your customer's risk of dissatisfaction for you to take action sooner.

DECISION-THEORY INSIGHT
Prediction is valuable when it changes the timing of decisions, not when it guarantees outcomes.

WHY AI MATTERS
Machine learning continuously recalibrates thresholds based on real outcomes, improving confidence and trust over time.



Decision Class 4 | PRESCRIPTIVE INTELLIGENCE

Allocating Authority Between Humans and Systems

Decision Question: What should be automated—and what must remain human judgment?

Prescriptive intelligence is where many initiatives stall not because insights are unclear, but because **execution ownership is ambiguous**. Successful teams separate decisions into two classes: **system-executable** (routing, prioritization, proactive communication, knowledge surfacing) and **human-governed** (policy changes, training strategy, product fixes).

DECISION-THEORY INSIGHT
Optimal systems allocate decisions to the lowest-cost, fastest, most reliable actor.

WHY AI MATTERS
AI executes repeatable decisions consistently at scale, while humans retain strategic control over policy and direction.

Decision Allocation Framework

SYSTEM-EXECUTABLE	HUMAN-GOVERNED
• Intelligent routing	• Policy changes
• Priority scoring	• Training strategy
• Proactive communication	• Product decisions
• Knowledge surfacing	• Exception handling
• Anomaly flagging	• Strategic direction

Decision Class 5 | COGNITIVE INTELLIGENCE

Understanding Intent and Context at Scale

Decision Question: What patterns exist beyond human perception?

Cognitive intelligence is the next step in the evolution of artificial intelligence by providing a way for machines to understand context instead of just recognizing patterns. Cognitive intelligence can interpret all forms of unstructured data, including things that may imply something to a human, for example, Customer Sentiment, Conversational Nuances and Implicit Intent, etc, which traditional analytics are unable to do.

Cognitive Intelligence provides insight into the intent of a user based on their emotional state and gives a more comprehensive overview of the overall customer experience based on analysis of large numbers of individual conversations with customers.

DECISION-THEORY INSIGHT

Cognitive intelligence expands the decision boundary enabling action on signals that were previously invisible or required expensive human analysis.

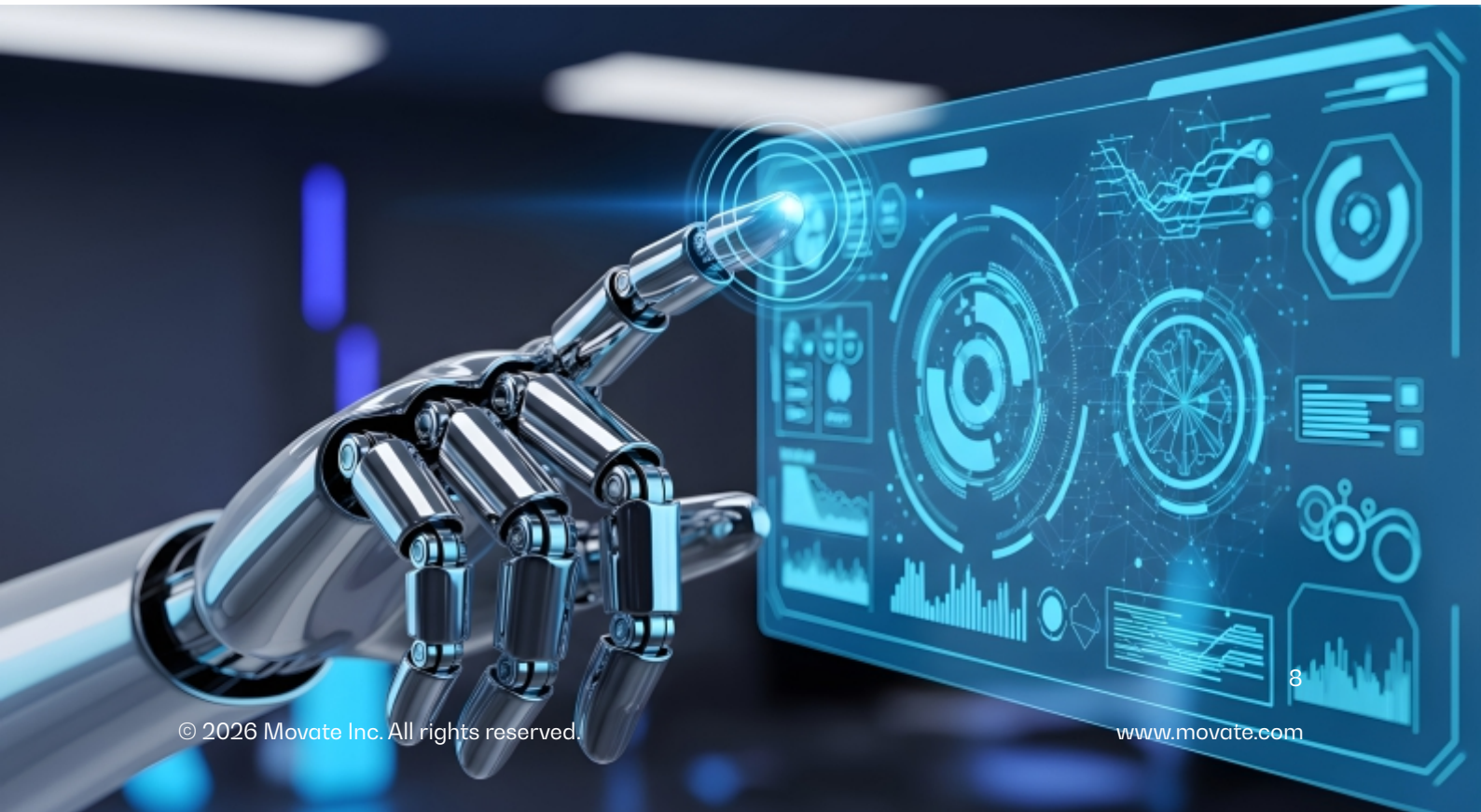
WHY AI MATTERS

Large language models and NLP extract meaning from unstructured text, enabling sentiment analysis, intent classification, and knowledge synthesis at a scale impossible for human teams.

Cognitive Capabilities Matrix

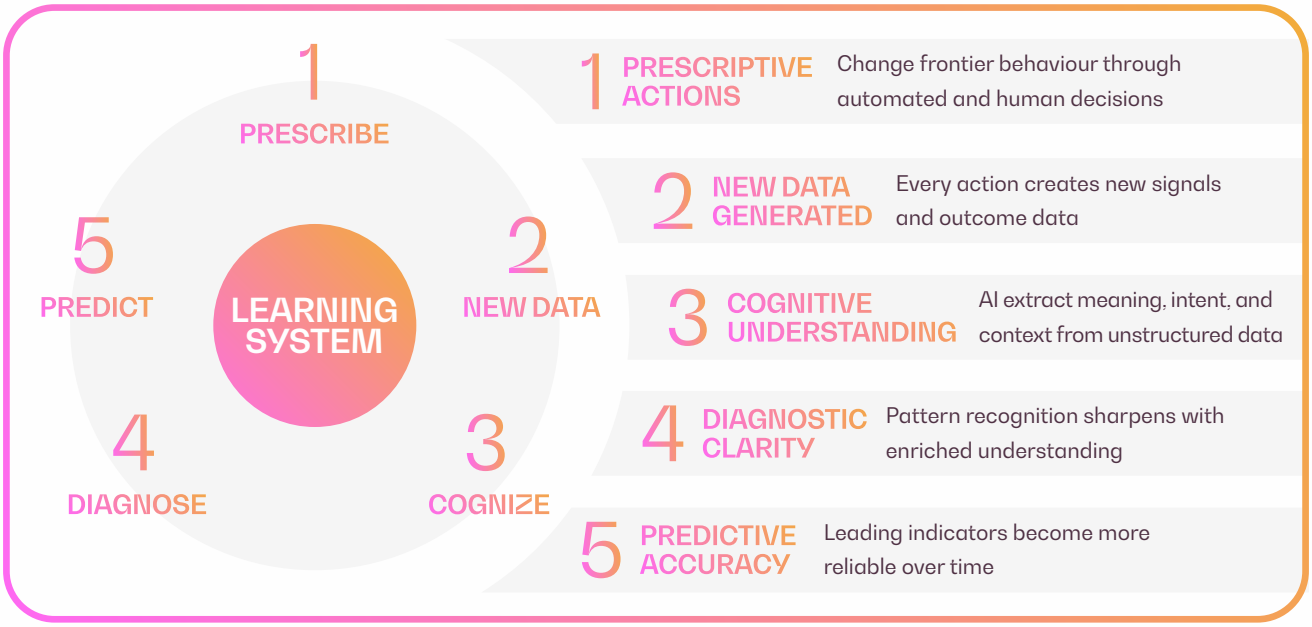
TEXT UNDERSTANDING	KNOWLEDGE SYNTHESIS
• Sentiment detection	• Cross-case pattern linking
• Intent classification	• Emerging issue detection
• Topic extraction	• Resolution recommendation
• Urgency scoring	• Knowledge gap identification

85%	3X	∞
Intent Accuracy	Faster Triage	Scale Capacity



05. **The Compounding Advantage:** A Self-Learning Decision Loop

When analytics is decision-led, a reinforcing loop emerges. Over time, the system doesn't just report performance—it learns.



06. **The Maturity Question CXOs Should Ask**

For Professionals (CXOs), maturity no longer relies on the appearance of their actual analytical stacks, but rather the speed at which they can identify a Risk Event, process that information into an actionable form, and implement an appropriate response to mitigate the customer impact of that risk event. Therefore, if Analytics is providing true business value, it strengthens the real-time quality of decision-making under real-world conditions.

This represents a significant evolution beyond simply using Analytical Techniques to identify End Results and instead focuses on using analytical techniques to gain a deeper understanding of what drives those results and be able to apply that Insight in a very targeted manner during the event phase.

07. About the Author

Dr. Kiran Marri

Dr. Kiran Marri leads the company's innovation and digital transformation initiatives. With over 25 years of experience spanning technology, research, and applied innovation, Dr. Marri is recognized for harnessing cutting-edge technologies, including AI and generative AI to solve complex, real-world challenges for clients across industries.

He has authored more than 80 publications in leading conferences and journals, and his work has earned eight award-winning research papers across software engineering, biomedical engineering, analytics, and machine learning. His visionary approach continues to position Movate at the forefront of transformative, AI-driven solutions.

About Movate

Movate is a digital technology and customer experience services company committed to disrupting the industry with boundless agility, human-centered innovation, and a relentless focus on driving client outcomes. Recognized as one of the most awarded and analyst-accredited companies in its revenue range, Movate helps ambitious, growth-oriented companies across industries stay ahead of the curve by leveraging its world-class talent of over 12,000+ full-time Movators across 21 global locations and a gig network of thousands of technology experts across 60 countries, speaking over 100 languages.

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