

From Pilot to Production With Explainable Al

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Introduction

While impressive generative AI proofs of concept capture headlines and imagination, a sobering reality exists in enterprise boardrooms: approximately 90% of generative AI experiments never make it beyond the lab. This isn't for lack of vision or investment - research shows 92% of C-suite leaders recognize generative AI as necessary for reinventing their organizations. The challenge lies in bridging the gap between controlled experiments and production systems that deliver reliable business value.

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The key to crossing this divide lies in explainability. Without the ability to understand how generative AI systems arrive at their decisions, organizations struggle to build trust, manage risks, and scale their initiatives effectively. Moving generative AI from lab to production requires solving a complex web of technical, operational, and governance challenges – all of which depend fundamentally on explainability.

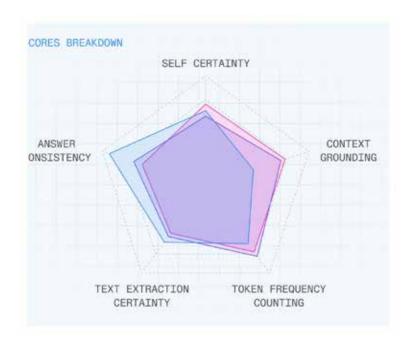


Explainability

The Foundation of Production Al

Explainability goes far beyond simple decision logs or judgement scores. It requires a comprehensive approach that provides transparency and measurement of how your data is used and applied with foundation models. This level of insight becomes critical when moving from controlled experiments to production environments where decisions have real business impact.

Organizations need to understand not just what their generative AI systems are doing, but why they're making specific decisions, how they're using source data, and what factors influence their outputs.



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Meibel's platform addresses this challenge by making explainability intrinsic to every aspect of building generative AI experiences. Our approach combines sophisticated confidence scoring with detailed analytics that trace how information flows through the system. When a generative AI system generates an output, stakeholders can see exactly which source materials influenced the decision, how confident the system is in its response, and what factors contributed to that confidence assessment.



Measurement & Validation

The Power of Explainable Metrics

The journey from laboratory experiments to production deployment demands a fundamental shift in how we measure and validate generative AI performance. While controlled demos can rely on simple accuracy metrics, production systems require a deeper understanding of how decisions are made and what factors influence outcomes.



Meibel's multi-dimensional confidence scoring system provides this crucial insight by evaluating generative Al outputs across several critical dimensions.

The system begins with correctness and faithfulness, measuring how well outputs align with source data and tracking factual consistency across responses. This goes beyond simple fact-checking to provide transparency into the Al's reasoning chains and identify potential hallucinations or fabrications.



Measurement & Validation

Confidence For Any Document

For document-centric applications, our explainable metrics extend to the evaluation of OCR and text extraction quality. The system provides detailed insights into how it processes complex layouts and varied formats, maintaining consistent quality standards while adapting to the unique characteristics of each document type. This transparency enables organizations to understand not just what was extracted, but how and why specific interpretations were made.



The calibration process exemplifies our commitment to explainability.

The system incorporates feedback from subject matter experts, creating a clear connection between human expertise and machine learning. Organizations can understand how their feedback influences the system's behavior, leading to continuously improving performance based on real-world experience rather than theoretical assumptions.



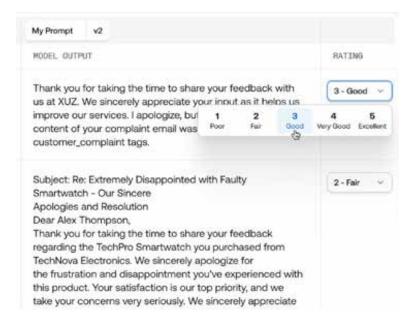
Risk Management

Explainable Safeguards

When organizations deploy generative AI at scale, they must protect against a wide range of risks while maintaining system performance. Production generative AI systems face challenges that rarely emerge in controlled laboratory settings.

Explainability proves crucial in identifying, understanding, and mitigating these risks effectively.

Our platform's explainable safeguards provide continuous visibility into system behavior, enabling organizations to detect and address potential issues before they impact operations. This includes comprehensive monitoring of data privacy, where organizations can see exactly how sensitive information is handled and protected throughout the generative Al pipeline.



Edge cases, which often prove challenging in production environments, become manageable through explainable detection and handling mechanisms. The system not only identifies unusual inputs but provides clear insights into why they were flagged and how they were processed. This transparency enables organizations to refine their handling of edge cases while maintaining robust protection against potential issues.



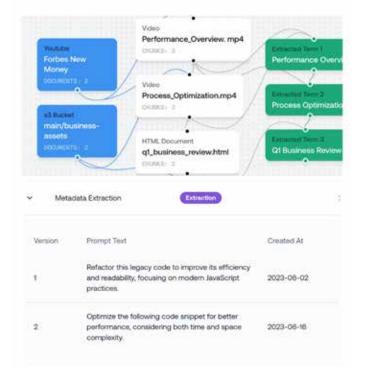
Governance & Control

Explainable Operations at Scale

The transition from lab to production demands a governance framework that enables organizations to maintain control while scaling operations effectively. Explainability forms the foundation of this framework, providing the visibility and understanding necessary for confident deployment.

Our platform enables complete operational visibility through detailed audit trails that explain every system action and decision. Organizations can track not just what changes were made to prompts, models, and configurations, but understand the reasoning behind each modification and its impact on system performance.

Version control takes on new meaning through the lens of explainability. Each version maintains clear documentation of its purpose, performance characteristics, and relationship to business objectives. This historical record proves invaluable for troubleshooting issues, demonstrating compliance, and making informed decisions about system evolution.





Case Study

SpecBooks Transforms Operations Through Explainable AI

The power of explainable AI in production environments is vividly illustrated through SpecBooks' transformation. Serving over 10,000 customers in the construction industry, SpecBooks faced a critical challenge in processing complex Request for Proposals (RFPs). Their existing system, despite using Amazon Textract and thousands of lines of custom code, struggled with document processing limitations that were preventing business growth.



Automatically convert bids & proposals into powerful, detailed submittals

Equipped with additional project management tools, built-in PDF editing, and more product data, SpecBooks+ is ready for your next commercial or detailed design project.

By implementing Meibel's explainable AI platform, SpecBooks gained unprecedented visibility into their document processing pipeline. The platform's confidence scoring provided immediate insight into extraction accuracy, while detailed analytics explained how the system interpreted different document formats and structures. This transparency enabled them to set appropriate thresholds for automated processing versus human review, leading to a 300-400% increase in bid volume while maintaining high quality standards.

The implementation process itself demonstrated the value of explainability. In just weeks, SpecBooks replaced thousands of lines of opaque custom code with a transparent, explainable system. Their engineering team could understand and refine the system's behavior, creating a solution that delivered consistent, accurate results while requiring minimal maintenance.



The Meibel Advantage

Production-Ready Explainable AI

Moving generative AI from pilots to production systems requires more than technical capabilities, it demands a comprehensive platform that makes generative AI explainable and trustworthy. Meibel's platform has been purposefully designed to deliver this explainability while addressing the full spectrum of production challenges.

Our governance framework combines data curation, confidence scoring and interpretability features to provide complete visibility into generative Al operations. The platform's version control capabilities ensure that all changes are tracked and explained, providing crucial audit trails for both technical and compliance purposes.

Integration flexibility comes with built-in explainability through our API-first architecture and comprehensive webhook support. Organizations can understand exactly how generative AI capabilities integrate with their existing workflows, maintaining visibility and control throughout their operations.

Moving Forward

Your Path to Explainable Production Al

The journey from lab to production represents a critical transition for any organization seeking to realize the full potential of Al. Success requires more than technical expertise – it demands explainable systems that build trust, manage risks, and deliver measurable business value.

The future of enterprise AI is about building systems that add exponential value to the bottom line and can be confidently deployed, maintained and scaled in production environments. By providing transparency, accountability and control as core features Meibel is helping organizations bridge the gap between AI's promise and its practical implementation. Together with our customers, we're transforming how businesses leverage generative AI, enabling faster innovation, building trust, and facilitating more informed decision-making that delivers on the full potential of AI in production environments.

Contact us



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