Explainable AI on IBM Cloud Pak for Data

Breaking the barriers to enterprise AI

Artificial intelligence (AI) is poised to transform organizations and remake entire industries, yet beyond common operational challenges, profound issues must be addressed before AI becomes a true business advantage.

Trust

Users must trust AI before they'll incorporate it in their business processes. If AI is a black box, they can't know whether the outcomes are unbiased and accurate or explain the outcomes to customers, auditors or compliance teams.

Transparency

Evolving regulations demand increasingly rigorous auditability, and AI outcomes must be explainable and auditable across the lifecycle of AI assets.

Bias

Bias isn't only unfair; it's potentially costly in terms of legal liability and lost opportunity—a challenge made even more difficult in multicloud environments, which can unwittingly introduce bias as they combine and scale.

IBM Cloud Pak for Data can help you:

– Measure performance and the business impact of production AI.

– Track actionable metrics and alerts in a single console.

– Enable business users to understand AI outcomes.

– Create feedback loops that improve AI accuracy, mitigate bias and correct for drift.

– Govern AI for regulatory compliance.

– Integrate AI more easily with existing business applications.

50%

of consumers surveyed feel optimistic and informed about AI, while **50%** feel fearful and uninformed.[1]

Create trust and transparency

IBM Cloud Pak® for Data is designed to create trust and transparency, taking the mystery—but not the magic—out of AI. Built on an open foundation, it makes it easier for data scientists, application developers, IT and AI operations teams, and business-process owners to collaboratively run and manage AI production with confidence, adapt to shifting business conditions and scale seamlessly.

Make your AI more accurate, adaptable and explainable

Track it
Gain greater visibility and control

A unified console provides virtually end-to-end transparency throughout the lifecycle, with comprehensive monitoring and fine-grained control across your AI implementations.

– Track and measure AI outcomes.

– Correlate outcomes to key performance indicators (KPIs).

– Enable thorough auditability.

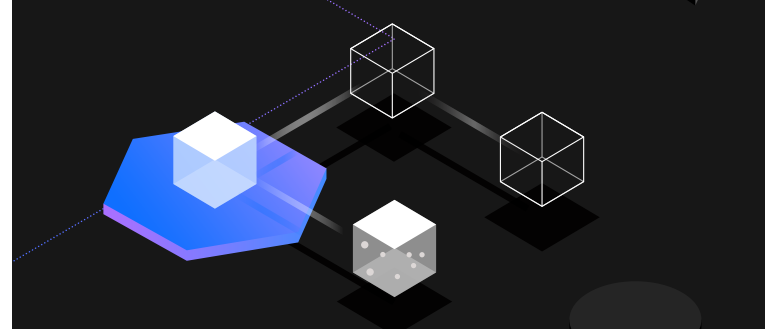– Integrate capabilities with many common business reporting tools.

Tune it
Adjust models for drift and bias on the fly with greater accuracy and ease.

– Define, apply and monitor custom and predefined model performance metrics.

– Assess model accuracy with sophisticated diagnostic services and correct against drift.

– Identify and get automated support to help mitigate harmful biases in both the data and the model—without requiring retraining by the data science team.

– Perform bias checks at build time and during run time to catch issues early.

Drift happens

Over time, even the best-trained models can drift. IBM Cloud Pak for Data provides automated drift detection to help mitigate errors before they happen.

– Monitor, enhance and maintain AI accuracy.

– Set alarms for custom drift thresholds.

– Drill down to identify and correct the causes of drift.

Explain it
Enhance transparency at every step of the AI creation process

With IBM Cloud Pak for Data, business users and regulators can more easily understand which factors contributed to virtually any AI outcome as well as the business results.

– Meet evolving regulatory demands and customer expectations around transparency.

– Go deeper with "contrastive explanations," a cutting-edge capability from IBM Research, which exposes greater detail on what is driving a given output.

Integrate it
Tap into additional data and AI capabilities

Beyond model monitoring, IBM Cloud Pak for Data provides a full spectrum of data and AI services to help you modernize your data for a hybrid, multicloud world. The unified platform can:

– Integrate with a broad array of leading open source tools and custom machine learning engines.

– Provide enterprise-grade security and governance for the AI development cycle.

– Close the skills and collaboration gaps between data science teams, IT and business process owners.

– Allow organizations to deploy data and AI applications on any cloud without vendor lock-in through Red Hat OpenShift Container Platform.

Combined with explainable AI, these capabilities can help you build trust, accelerate AI adoption and increase the ROI of your AI investments.

AI you can trust—and verify

IBM Cloud Pak for Data provides thorough explainability and monitoring, helping businesses facilitate fair and accurate outcomes, remain compliant and increase confidence in the business value of AI.

Learn more:

See the ROI of explainable AI in this Forrester study.

Visit ibm.com/watson/explainable-ai

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[1] Blumberg Capital, *Artificial Intelligence in 2019: Getting Past the Adoption Tipping Point*, 2019, https://www.blumbergcapital.com/ai-in-2019/