Unlocking AI Productivity through Data

Tim Davis, Executive Director, Data and AI Architecture WorldWide

Ryan Trollip, CEO of Blue Polaris



Today's talk

Setting your AI strategy in an evolving market

The importance of a focused AI strategy starts with a use case that delivers ROI 2

Managing AI across the enterprise

- Agents + assistants
- Smaller, open models
- Access to quality data
- Governance of any AI
- Deploy on any cloud

3

Lessons from Blue Polaris making gen AI work

What we're learning from real, successful, mission critical businesses applying AI at scale



AI use cases that unlock distinct value

Customer experience

Customer service

33% increase in agent efficiency

CAMPING WORLD

Customer/citizen service

800 hours saved each month



USD 3 billion saved

Marketing

67% content creation efficiency gain for supported asset types



Digital labor IT operations Application modernization Human resources Gained 30% productivity Reduced time from résumé submission to offer by 75% SILVER EGG TECHNOLOGY **WESTFIELD**° Procurement Application modernization Over USD 40 million in cost 1,500 hours of manual labor saved yearly savings and avoidance (òca:Cola WATER Supply chain **IT** operations Reduced supply chain Improved initial build costs by USD 150 million productivity for Ansible



IBM.

Playbooks by 45%













Put AI to work with watsonx.

IBM watsonx is a portfolio of AI products that accelerates the impact of generative AI in core workflows to drive productivity.



Agents

The Evolution of Assistants & Agents

Traditional Assistants

-Rule based -Predefined action paths -Task based -Limited control

Single Agent

Multiple Agents



–Performance constraints

- –Domain based
- -Specialized agents
- -Control
- -Multiple architecture **options**

Three areas of agentic innovation

Multi-agent orchestration

Custom-built agents

Prebuilt agents

watsonx Orchestrate

Manage all agents in one place.

Easily deploy and manage any agent for any task within a simple and unified user experience optimized to scale.

watsonx.ai Build custom-designed agents.

Design, deploy and manage AI agents with ease using pro- and low-code options.

watsonx Orchestrate

Accelerate AI agent deployment.

Get started quickly with prebuilt AI agents powered with business logic and seamless integration to the tools that power your business.

Orchestrate multiple agents with **watsonx** Orchestrate

TE .	
~	
Assistants	×
ProcureAssist	~
Talent Acquisition	\sim
AskHR	~
AckIT	
ASKIT	~
AskSales	\sim

Back to chat history

IBM watsonx Orchestrate

 \equiv

AI

· Good Morning 8:30 AM

Hello, welcome to watsonx Orchestrate.

Accuracy of generated answers may vary. Please double-check responses.

Log in	What can you do?
Log in to load a demo user profile	What type of questions can the Agent help you with?
\rightarrow	\rightarrow





Models

Applying A Spectrum Of Models Is Needeo Structured Data – Unstructured Data – Public Data Sets

In most cases Generative AI use-cases are Content Grounded (implemented usin RAG pattern)

Retrieval-Augmented Generation (RAG) is the process of optimizing the output of a large language model, so it references an authoritative knowledge base outside of its training data sources before generating a response.

Image Models

- Anomaly Detection
- Failure Prediction
- Classification
- Fraud Detection

Geospatial Models

- Calamity Impact Assessment
- Above Ground Biomass assessment

d	Large Language Models	Time-series Models
2 g	 Customer Chat Summarization Support assistance Q&A Entity Extraction from legal documents Content Classification Content Generation 	 Failure Prediction Demand Prediction Delivery Prediction
	Codo Conoration	

Code Generation Models

- Coding Language to Language
- Meta data/logic generation
- Test Case Generation

Multi Modal Models

- Shopping assistance
- Incident Response management

Select the **right model** for the **right use case**: Smaller, open-source, customizable IBM (Granite) and third party (Mistral, Llama ...)

98% cost savings with IBM Granite vs GPT-4



Your data

The right model





Targeted use case fine tuning



IBM Granite

A family of **open**, **performant** and trusted AI models to accelerate enterprise AI adoption





Open

- Open sourced under Apache 2.0
- Transparency of data, training methods
- Customize with your data

Granite family of models



(LLMs) with Reasoning



Performant

- Diverse range of fit-forpurpose models
- Designed for scalability
- Advanced reasoning and enterprise document understanding



Trusted

- IP indemnification
- Responsible and safe ΑI
- Guardrails to secure data and mitigate risks



Data



AI is only as good as your data

Unprecedented data challenges to scale AI



There's more data Exploding data growth



In more locations

Multiple locations, clouds, applications and silos



In more formats Documents, images, video



With less quality Stale and inconsistent Emerging challenges of unstructured data

90%

of all enterprise-generated data is **unstructured**.

Today, limitations of RAG prevent enterprises from realizing the value of unstructured data for GenAI.





The Data and Analytics Best Practices What is needed for Trusted AI and to operationalize Generative AI

> Applications using GenAI **GenAI Lifecycle:** Policy-driven enterprise workflows with different personas and controls

> > Models Model Goverance: Governed model catalogue

Classes / Categories of Use Cases + Security/Privacy/Rules/Policy Enforcement AI Governance: Use case monitoring and measuring Model Management

> Architectures & Operations Impacted **LLMOps:** Hybrid capabilities supporting Day 2 operations

Data Governance & Classes of Supporting Data Data Governance: Fully-governed data catalogue with lineage, rules, and policies

Structured Data

Unstructured Data

Data Platform Business Domains

External/Public Data

Connecting & Unifying

- Structured Data Governance
- Unstructured Data Governance
- Public Data Set Governance
- AI Governance
- Model Governance

Across Distributed Data Topology like Cloud, On Premise and Mainframe



Traditional RAG cannot handle the complexity of unstructured data

- It's inaccurate, because it doesn't understand context, entities, calculations, or relationships across documents
- It's complex and error-prone, due to tedious and manual ingest and retrieval
- It's risky, due to inconsistent enterprise data governance and access controls

Resulting in **inaccurate and ineffective** AI apps



Positional context & unlabeled entities

Relationships and information between documents

Lack of data governance across documents



IBM **watsonx.data** The hybrid, open data lakehouse



Open by design

Open platform that values flexibility and choice above all else – no vendor lock-in



Hybrid & multicloud

Highly portable workloads & entitlements that span public cloud, on-premises and multi-cloud



Optimal price-performance

Fit-for-purpose query engines providing choice of tooling & financial governance



Integrated data security & governance

Easily integrate, secure, and govern data across the entire estate



AI-ready

Combine curated structured and unstructured data to build new AI apps and services



18

Integrate, access, govern and secure all data types with an open and hybrid data architecture





Gen-AI is transforming the ability to process unstructured data for advanced analytics







Deepening watsonx capabilities to address enterprise gen AI data needs with **DataStax**

Open-source innovation

Building on our opensource commitment

- Langflow, open tool and community for low-code AI development, with over 46,000 stars on GitHub
- AstraDB and DataStax \bullet Enterprise, provide NoSQL vector capabilities powered by Apache Cassandra

Hundreds of clients including





Manage unstructured data for AI

Reduce gen AI development friction

- Harness **unstructured** enterprise data and accelerate time to value
- Low-code design environment and orchestration for gen AI apps with Langflow

Leaders in enterprise data and AI

Infrastructure, tools, and technologies

- Langflow offers flexible middleware to IBM watsonx.ai, our end-toend AI development studio
- AstraDB's leading vector database will enhance vector capabilities of IBM watsonx.data

NETFLIX











Governance

Pain points for scaling **responsible** AI





Inaccurate documentation

Disparate tools and data



0



Increased risk

Vulnerable data

IBM watsonx.governance

Accelerate responsible, transparent and explainable AI workflows



Centralized **AI lifecycle** governance

Manage, monitor and govern any AI: model, app or agent; across IBM and 3rd party like OpenAI, AWS, and Meta



Proactive AI risk and security management

Proactively detect and mitigate AI risks, evaluate AI assets, and secure AI deployments with Guardium AI security



Trustworthy and dynamic compliance

Manage AI for safety and transparency with our regulatory library, automation and industry standards

Platform agnostic: Govern any AI, deployed anywhere



Reference Architecture Data & Analytics Framework



습

Welcome, Marc!

Last successful login 2/10/2025, 4:41 PM





Models by Department

34



Change Management

Change Requests by Status

41



My Active Change Rev



About Blue Polaris

We build end-to-end outcome-driven solutions targeting ROI.

75+ years combined expertise building, servicing, supporting, and selling the solutions our clients need.



A certified true-blue IBM Business Automation partner with a strong emphasis on Al Assistant and Al **Agent capabilities.**





Service Practices

Decisions: ODM, ADS, DMOE



Workflow: BAW, Orchestrate, RPA, FileNet etc.



Infrastructure: Security, platform, virtualization, observability, CICD, etc.

Product R&D: Modeling, Simulations & Validations, Gen6GL, VLP, etc.



Orchestrate Skills for OpenPages, OpenPages links to BWL



watsonx.governance



Applying & Infusing Al in **Business**



Al for Healthcare **Integrated Care Plans and Benefit** A leading global her his pargnee provider wanted to use AI to improve the member experience and quality of care.

The Solution

Part 1: Create Usable Data from Calls

Use GenAI to analyze call logs

- Extract data currently collected with assessments
- See what else is in the call logs that might affect care recommendations

Improve member experience

• Replace assessments with call log analysis

Improve member care

- Revise decision models and ML models to take advantage of this data
- New and better predictions

Part 2: Explain Care Decisions

Use GenAI to explain decisions

- Generate natural language explanations from decision logic
- Present this to agents and perhaps members to improve understanding

Improve member experience

- Reduce the need to call to understand care recommendations
- Improve consistency and reduce length of calls

Improve member care

Increase adherence to care plans by improving understanding

Key Considerations

Several considerations were imperative before moving forward:

- Protect the data
- Ensure all care and treatment plans were generated by the decision engine – not GenAl
- Ensure general knowledge of GenAI does not override content from the integrated care decision engine
- Evaluate both recent calls / activities and longer-term historical trends



Modernize in Place... Moith Adm Legacy Code to a modern 6GL

Migrating legacy code, such as COBOL often is a goal but ignores the reality of the value of the mainframe.

The Solution (COBOL

example is analyzed, visualized, documented and refactored into coherent business services.

- 2. Generative AI is used to extract the core logic from this code as a set of decision trees that can be explored and visualized an inside-out view of the logic.
- 3. A top-down decision model of what the business **thinks** the application does an outside-in view of it is built working directly with business SMEs and domain experts.
- 4. A variety of ML and AI techniques are used to interactively combine these two perspectives into a single, standards-based decision model under the control of business analysts.
- 5. Once a first cut decision model is built, additional ML and AI techniques are used interactively to normalize and refactor the decision model.
- 6. Completed decision models are deployed to ODM/Z, ADS on Z or DMOE on Z depending on client needs.

Benefits

- The solution enables the effective modernization of early generation programs e.g. COBOL, etc. applications in-situ. It delivers much-needed transparency, consistency, and agility to these applications without requiring their complete replacement.
- It identifies the core business logic and replaces opaque, hard to maintain, expensive to change code with easy to manage normalized business rules.
- This decision-making logic is the code that changes the most often and that has all the compliance, audit and transparency requirements.
- The solution would leave the applications executing on Z or distributed, taking advantage of all the current data and processing infrastructure, even as the decision-making core was upgraded.





How - 6GL Assistant Pipeline



DecisionsFirst[™] Simulator & Modeler





VS Code

WCA - Tracing of dependencies & final extraction - modular



Decisions on Z – build & deploy



Additional Resources





A Comparative Analysis of Generative AI Capabilities (PART 1)

Amit Rawool, Al Lead Ryan Trollip, Executive Partner

> Updated March 2025





A Comparative Analysis of Agentic AI Capabilities (PART 2)

Mukul Gour, Al Lead Ryan Trollip, Executive Partner



er

Updated March 2025





IBM's integrated portfolio addresses enterprise AI needs

Al Assistants	watsonx Orchestrate	Empower indiv expertise acros and applicatior
Al Middleware	watsonx.governance watsonx.ai Granite, 3 rd party models	Leverage gene tuned with you transparency, a
Data Services	watsonx.data	Define, organiz data to train ar services
Hybrid Cloud Al Tools	OpenShift AI RHEL AI	Build on a cons based on open
Infrastructure	IBM Z Storage	Embed AI solu bolster resilien
+ Ecosystem		– System Inegrat – Software & Saa

viduals to do work without domain ss a variety of business processes ns

erative AI and machine learning – Ir data – with responsibility, and explainability

ze, manage, and deliver trusted nd tune AI models with data fabric

sistent, scalable, foundation -source technology

tions directly within offerings to nce and improve security

IBM Consulting

- Domain expertise
- Consulting Advantage
 AI-delivery platform
- Generative AI strategy, assets, operations

System Inegrators
Software & SaaS Partners
Enterprise Infrastructure

Model ProvidersPublic/Private Cloud



Visit us at Booth #6

Get started with AI productivity for enterprises today.

Learn more about **watsonx**.

Try watsonx for free



www.ibm.com/watsonx



