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LEARNING FOR LIFE

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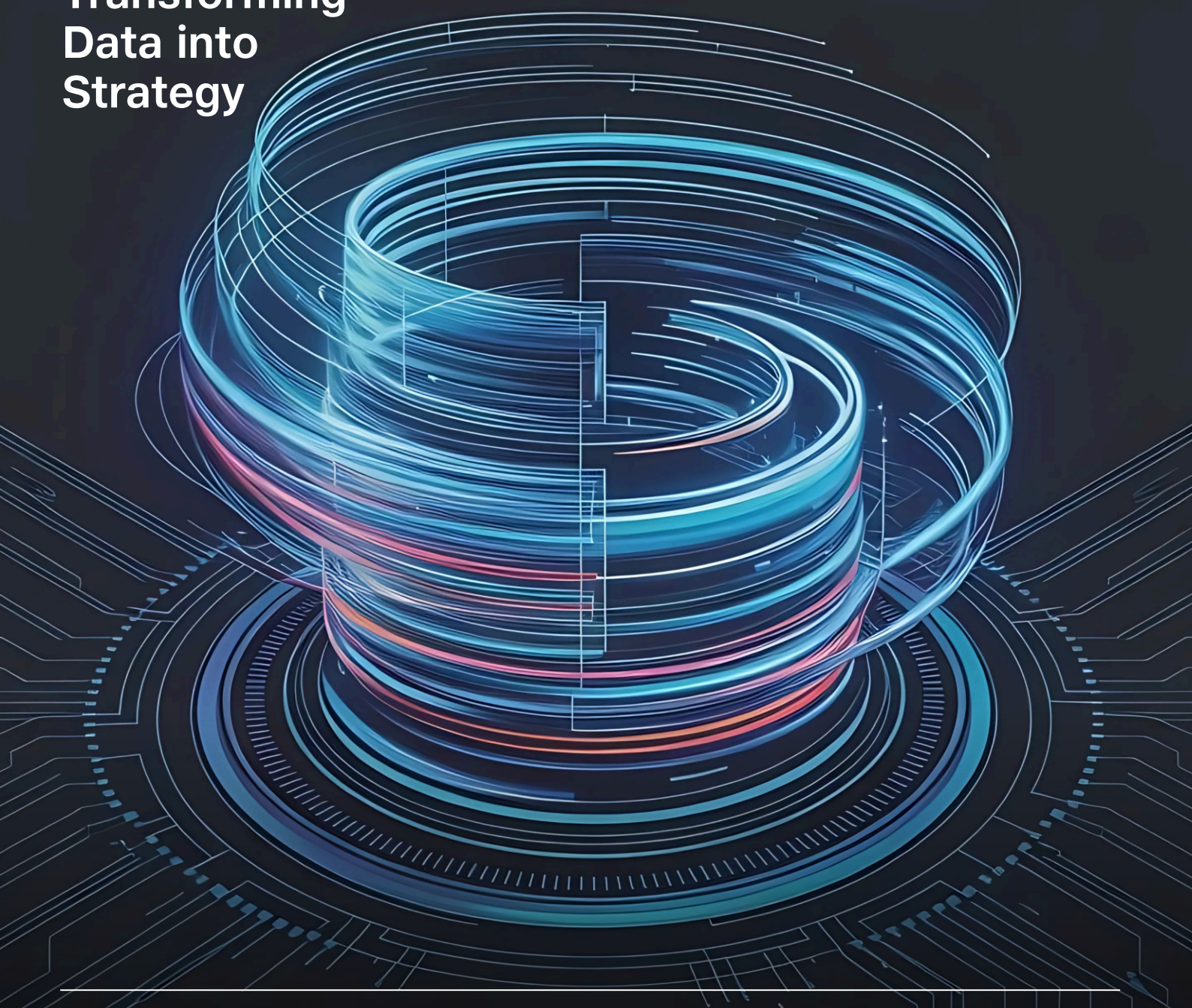
AI & Data Science CONCLAVE

Transforming Data into Strategy



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ViewSonic
AIOS Conclave

TRANSFORMING DATA INTO STRATEGY

INTRODUCTION

As artificial intelligence (AI) and data science (DS) continue to redefine how industries operate, Jio Institute hosted a thought-provoking conclave titled "Transforming Data into Digital Strategy."

This dynamic event brought together domain leaders, technology innovators, and enterprise strategists to deliberate on how data-driven technologies are enabling business transformation.

The conclave was structured as a panel discussion, interspersed with individual insights from each speaker, shedding light on real-world challenges, strategic frameworks, and emergent technologies reshaping the AI landscape.

The panel included three distinguished leaders:

- **Siddharth Sureka,** Senior Executive Group Vice President & Chief AI Officer, Motilal Oswal Financial Services Ltd.
- **Girish Varadarajan,** Head - Engineering & Data Platform, Innoviti Technologies
- **Shripadraj Mujumdar,** Head - AI & Intelligent Automation, Godrej Enterprises Group

The discussion was moderated by Mr. Arpit Tiwari, AI & DS Class of 2022-23, Jio Institute and a GenAI Scientist, Jio Platforms Limited.

The session began with a welcome address by Dr. Pradip Chatterjee, Advisor, Corporate Relations and L&D who framed the conclave's intent around the cognitive load of modern decision-making. **"We make over 35,000 decisions daily. AI and digital transformation are redefining the nature of these decisions,"** he said, emphasizing the need for educational institutions and businesses to align beyond financial returns and promote deeper emotional commitment to long-term, value-driven innovation.

His metaphor, drawing from the famous English footballer Gary Lineker - "the person who scores isn't the one who's at the right place at the right time, but the one who's at the right place at all times"—aptly set the tone for sustained, strategic readiness in the AI era.

He further highlighted how student commitment to education should go beyond surface metrics like cost-to-company (CTC) from job opportunities from campus placements, and return on investment (ROI), advocating instead for a value-based, emotionally resonant approach to talent and innovation. In his words, **"When you look at financial things like ROI in education, you tend to disengage faster. If you're emotionally committed to the journey, the outcome is multifaceted and sustainable."**

AI IN BFSI: CULTURAL AND STRUCTURAL HURDLES

Siddharth Sureka offered a strategic lens into the challenges and breakthroughs of AI adoption in traditional sectors like Banking, Financial Services, and Insurance (BFSI). He highlighted that in the realm of data science, the focus remains on exploration and prototyping, whereas in software engineering, the execution trajectory dominates. The challenge, therefore, lies in balancing experimentation with delivery.

A key barrier, according to Sureka, is influencing organizational thinking: "Successful AI implementation hinges on leadership alignment. We need to restructure education, communication, and parallel software engineering efforts to translate prototypes into products." He spoke of the "friction in legacy systems," where hierarchical, risk-averse cultures inhibit bold experimentation, often resulting in delayed AI adoption.

AI PROJECT LIFECYCLE AND BUSINESS ALIGNMENT

Sureka revealed that in Motilal Oswal, around 40% of AI projects have moved to production within 10 months, while the remaining 60% are still in the experimental phase. He stressed that every project must be directly aligned with business goals and internal stakeholders: **"Data science without business alignment becomes a silo. The key is co-ownership with business teams."**

He elaborated that AI should be integrated within the decision-making framework of every function—be it underwriting, risk profiling, or compliance. Projects that lack measurable KPIs or fail to address specific business needs tend to be deprioritized or abandoned.

GENAI AND CLASSICAL AI: A COLLABORATIVE MODEL

Motilal Oswal leverages a hybrid AI architecture, where traditional models power the backend of conversational GenAI systems. Sureka discussed use cases in financial modeling, portfolio analysis, and forecasting, where classical AI tools build robustness, while GenAI provides an intuitive layer for user interactions. **"It's the intertwined dance of classical and generative AI,"** he noted.

This combination allows the firm to use traditional machine learning models for time-series forecasting and customer segmentation, while GenAI tools enhance personalization in client communications and front-end applications.

> *"Successful AI implementation hinges on leadership alignment. We need to restructure education, communication, and parallel software engineering efforts to translate prototypes into products.*
>
> - SIDDHARTH SUREKA

TRUST AND HUMAN-IN-THE-LOOP (HITL)

To preserve trust in a heavily regulated industry, Motilal Oswal follows a human-in-the-loop (HITL) approach. **"AI gives us a first draft, but every financial insight is validated by human advisors. This ensures interpretability and mitigates bias."**

Sureka emphasized that trust is a non-negotiable pillar in financial services. The HITL model is particularly critical for client-facing tools, where even minor anomalies could have significant reputational or financial implications.

BUSINESS VALUE THROUGH PREDICTIVE INTELLIGENCE

Sureka also spoke about how AI is replacing heuristic-based decision-making with evidence-driven strategies. From 30-60-90 day planning and cash flow forecasting to predictive maintenance, AI enables granular insights previously unimaginable in traditional BFSI frameworks.

"Forecasting cash flows using historical data and correlating it with seasonal trends helps our teams make more informed treasury decisions. Similarly, predictive analytics supports 360-degree planning, from staffing models to client onboarding timelines," he added.

“We integrate human checkpoints throughout our AI pipelines, especially where decisions impact real people and businesses

- GIRISH VARADARAJAN

FROM ML TO GENAI: THE SHIFT IN NARRATIVE

Girish Varadarajan brought to light the paradigm shift from machine learning to generative AI in the fintech space. **“What was once called machine learning is now referred to as AI, but GenAI is different. It’s about co-creation, not just prediction,”** he explained. In sectors like payments and retail finance, regulatory hurdles remain steep, especially concerning consumer data protection and compliance standards. Girish emphasized the importance of these guardrails, stating, **“They may slow us down, but they are essential to maintaining the integrity of financial systems.”**

HUMAN-IN-THE-LOOP AND AGENTIC AI SYSTEMS

At Innoviti, the transition from curated models to created models marks the dawn of Agentic AI—AI systems designed to operate autonomously with embedded human feedback. “We integrate human checkpoints throughout our AI pipelines, especially where decisions impact real people and businesses,” said Varadarajan. This approach ensures that every automated decision is reviewed, refined, and contextually aligned before execution. It also ensures that no data that is supposed to stay confidential by design, gets fed to the public repositories of these AI models.

One illustrative case involved automating promotional offers between mobile phone manufacturers and banks, a process traditionally mired in manual mapping, real-time accounting of offer utilization and approvals. Innoviti’s AI now executes these offers across over 10000+ phone models sold by 100+ retailers and payments, handled by over 50 different banking & financial services partners end-to-end, but not without human review, ensuring precision and compliance.

AI AND WORKFORCE EVOLUTION

Girish addressed a pressing concern—job displacement due to automation. "Rather than eliminating jobs, AI shall elevate roles," he remarked. By reassigning employees from repetitive tasks like data entry to cognitive roles like data interpretation, Innoviti has seen improvements in both job satisfaction and operational efficiency. **"Our people are using their minds, not just their hands,"** he remarked.

CUSTOMER-DRIVEN INNOVATION

He underscored the need to remain close to the consumer. **"Our best product ideas don't come from boardrooms—they come from merchants and field agents."** Innoviti uses GenAI to convert these insights into feature updates, enhancing merchant interfaces, payment controls, and settlement timing, which can be adjusted by merchants in real-time "It's the added layer of control that works wonders," he emphasized.

AGENTIC AI IN PRODUCT LIFECYCLE MANAGEMENT

Varadarajan proposed a futuristic vision where product development is semi-automated. **"We're exploring models where a Product Manager defines a user journey, AI translates that into a technical framework, and developers act more as auditors than creators."** This reimagining of software development could significantly compress cycle times while maintaining quality.

QUANTUM COMPUTING: HYPE VS. APPLICATION

Discussing emerging technologies, Girish addressed quantum computing's limited role in current enterprise applications. **"It's fascinating but not yet operationally viable,"** he said. However, he acknowledged its potential in real-time optimization and flagged the cybersecurity concerns it introduces, particularly around encryption vulnerabilities. "It's not impossible; it just hasn't been done—yet."

BUILDING A DATA-FIRST CULTURE IN THE ENTERPRISE

Shripadraj Mujumdar's discourse centered on creating a data-first mindset across diverse business functions. "We have 14 verticals across the Godrej Group, including consumer businesses, B2B verticals, even defense. For AI to succeed, it has to be embedded across all layers," he explained. He stressed the need for leadership onboarding and comprehensive learning and development programmes to normalize AI usage within enterprises.

BALANCING INNOVATION AND RESPONSIBILITY

Mujumdar pointed out the global anxiety around AI-led job losses. "We must anchor AI implementations in our organizational values," he said. "Automation should augment, not replace. Responsible AI is about equity—ensuring that gains are shared and not isolated." He emphasized the role of communication and transparency in AI adoption.

GENAI IN MULTI-VERTICAL DEPLOYMENT

Godrej is piloting GenAI applications in many of its business units, ranging from household appliances to high-tech defense equipment. In consumer-facing areas, conversational AI is being used to enhance customer service and feedback loops. In corporate functions, AI is streamlining HR queries, financial reporting, and internal documentation.

Perhaps most fascinating were his examples from manufacturing. **"We're using vision-language models (VLMs) to assist with quality assurance in high-pressure environments. These are reactors where human error is costly. AI helps flag anomalies before they become failures."**

> *"We have 14 verticals across the GodrejLet's stop thinking in silos. China built DeepSeek without NVIDIA GPUs—so let's stop thinking innovation must follow Western templates. GenAI isn't AGI; it is imitation done well. But with human context, it becomes intelligent. Group, including consumer businesses, B2B verticals, even defense. For AI to succeed, it has to be embedded across all layers*
>
> - SHRIPADRAJ MUJUMDAR

REDEFINING INNOVATION

He concluded with a powerful call to action. “Let’s stop thinking in silos. China built DeepSeek without NVIDIA GPUs - so let’s stop thinking innovation must follow Western templates. GenAI isn’t AGI; it is imitation done well. But with human context, it becomes intelligent.”

He also illustrated how Agentic AI could accelerate long-term project proposals - often spanning 15+ years - by automating research synthesis and draft generation.

PROMPT ENGINEERING AND MODEL TUNING

Mujumdar stressed the importance of crafting high-quality prompts. **“The AI is only as smart as the questions we ask it. Good prompts lead to useful insights.”** He also discussed how multi-agentic frameworks could be used for encoding organizational knowledge into GenAI systems.

STUDENT QUESTIONS & ANSWERS

Question 1:
What are the key architectural and engineering considerations when building scalable and secured data infrastructure for fintech applications, particularly in the context of modern data engineering practices?

→ **We've fundamentally changed our approach to data engineering to cater to GenAI use cases. Instead of traditional ETL (Extract, Transform, Load) processes that dump data into tables in data lakes or warehouses, we now treat every piece of data as a stream. Applications generate data streams that are piped to message cubes, where the data engineering side subscribes to message cubes rather than querying tables. Data persistence methods have been completely redesigned. This represents a mindset shift where every piece of data is generated by human actions or proxies, creating continuous data streams rather than static rows in tables. We've implemented this over the past year and are migrating legacy products to this streaming model.**

Question 2:
How is Motilal Oswal using AI to enhance its trading platform, and what future implementations are planned?

→ **We focus on two key areas for AI enhancement. First is personalization and client experience, where we optimize trade programs through AI by understanding client portfolio requirements and trading preferences, providing personalized investment vehicle recommendations. Second is regulation and reconciliation, where we've replaced manual verification of call transcripts with natural language processing to automatically reconcile trades. AI now ensures that the actual trade placed matches client requests, delivering significant productivity enhancements of approximately 25% improvement**

Question 3:
Can we build use cases combining agentic AI and blockchain for securing financial documents, especially given RBI's blockchain-based initiatives?

→ **This is an emerging convergence area where AI, blockchain, and quantum computing will eventually converge, with quantum computing enabling faster blockchain validation processes. However, we follow a "crawl, walk, run" approach by focusing on current identified use cases with proven big wins, monitoring blockchain technology development, tracking regulatory changes, and planning integration strategies. The key principle is to start with use cases and determine appropriate technology, rather than adopting technology first and then finding use cases.**

Question 4:
What's the actual percentage increase in developer productivity from using AI co-pilots?

→ **While specific metrics are proprietary, effectiveness varies by developer experience level. Expert developers may use co-pilots selectively based on intuition, mid-level developers see moderate assistance benefits, while junior developers experience the highest productivity gains since they typically search online for solutions anyway. Co-pilots provide significant assistance to junior developers who would otherwise use ChatGPT or web searches to solve problems.**

Question 5:
What skill sets are organizations looking for from students and career changers in the current technology landscape?

→ **Organizations seek deep technical understanding, including comprehension of code generated by LLMs, ability to make appropriate tweaks and optimizations, understanding of underlying algorithms and processes, with formal education providing advantages over those who only use AI tools without understanding. Strategic thinking is crucial, including understanding AI model limitations and capabilities, leveraging creativity and originality in areas where AI currently relies on historical data, and innovation through original thinking rather than just tool mastery. Core competencies include critical thinking with understanding of model details and questioning methodologies, learning agility to adapt to rapid technological changes, and passion-driven approach with genuine interest in learning versus salary-focused motivation. The job market favors those who understand technology deeply rather than those who simply use AI tools without comprehension.**

CONCLUSION

The AI & Data Science Conclave at Jio Institute provided a nuanced, multi-dimensional view of how AI is transforming industries—not merely through algorithms but through the confluence of ethics, leadership, innovation, and human oversight. From BFSI and fintech to manufacturing and consumer services, the use cases discussed highlighted both the promise and responsibility of AI-led transformation.

A recurring theme across all speakers was the importance of trust, co-creation, and alignment—between business and data teams, between AI systems and human intelligence, and between ambition and ethical implementation. As data continues to be the most valuable asset of the digital age, conclaves like this foster the dialogue and collaboration necessary to translate that data into meaningful, sustainable strategy.

The conclave and the following Q&A left indelible insights for our PGP in AI & Data Science and Sports Management students, given the opportunity to learn from leaders in technology innovation and digital transformations in major organizations.

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