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PEER INSIGHTS ROUNDTABLE
CLIENT SUCCESS

# Balancing Act: AI, Automation, and Human-Centric Work

MODERATED BY IIA

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## Summary

7 data, analytics, and AI leaders across the following industries participated:

- Agriculture
- Education
- Financial Services
- Health/Healthcare
- Technology
- Manufacturing

**Key Themes:**

1. Cautious Integration of AI in Regulated Industries
2. Navigating Challenges in Data Lineage and Governance
3. Overcoming AI Anxiety through Education and Engagement
4. AI as an Enhancer of Productivity and Efficiency

# Peer Insights in Brief

## Executive Summary

Data and analytics leaders shared insights on the balancing act between AI automation, augmentation, and human-centric jobs and workforce impact. Here are the key themes and takeaways:

**1. Cautious Integration of AI in Regulated Industries:** Many participants emphasized the need for a cautious and measured approach to integrating AI, particularly in highly regulated environments where risk management is crucial.

**2. Navigating Challenges in Data Lineage and Governance:** Participants discussed the challenges of establishing comprehensive data lineage within organizations, particularly with backend ERP systems. Despite leveraging advanced tools with user-friendly features and open API architectures, significant obstacles remain in tracing complete data lineage from source systems to analytics platforms.

**3. Overcoming AI Anxiety through Education and Engagement:** The participants discuss various strategies to address the common fears associated with the adoption of new AI technologies within their organizations. They emphasize the importance of viewing technological evolution as an ongoing opportunity rather than a threat, and they outline specific initiatives like educational sessions, controlled

experimentation platforms, and comprehensive training programs.

**4. AI as an Enhancer of Productivity and Efficiency:** The discussion highlighted AI's role in enhancing productivity, especially by automating mundane and repetitive tasks, allowing human employees to focus on more complex and value-added activities.

# Extended Peer Insights

## 1. Cautious Integration of AI in Regulated Industries

Some participants believe generative AI (GenAI) is currently at the peak of its hype cycle. Many of the capabilities attributed to generative AI could be achieved with traditional analytics and automation. The future will undoubtedly integrate AI extensively, serving as helpful assistants in many sectors. However, it's crucial to remain cautious and judicious in finding AI's appropriate applications.

For example, the idea that AI can independently conduct audits is considered premature. The technology is evolving rapidly, and the industry is still figuring out how to harness it effectively. The conservative nature of some organizations allow them to adopt these technologies at a measured pace. Thus, they still lean toward the conservative, traditional side of analytics.

The concepts of AI agents and the idea of placing these agents in customer-facing roles are currently under discussion within some companies represented at the table. However, they are cautious, opting to observe how these technologies evolve before fully implementing them.

Other leaders highlighted how their organizations proceed cautiously to ensure any technology is extremely stable, as the potential risks currently seem to outweigh the benefits. This cautious approach is particularly important in financial services, where the repercussions of technological mishaps can be severe.

One participant highlighted their cautious approach to adopting generative AI by employing a decision tree analysis for any new project or product. This decision tree evaluates potential use cases and assigns them a green, yellow, or red status, guiding further actions based on security considerations.

An attendee from a manufacturing company shares their experience with AI integration across various departments. Initially, their organization experienced a surge of interest and submissions for AI applications, specifically in RPA (Robotic Process Automation), AI, and big data architecture, leading to a need for stricter governance and concept formation.

Lastly, the group discussed the challenge of integrating AI into customer service applications like Salesforce, WeChat, WhatsApp, Teams, and Zendesk, emphasizing the need for a cohesive architecture to support these enhancements.

## 2. Navigating Challenges in Data Lineage and Governance

One leader shared their experience working with various organizations, noting a recurring challenge in establishing effective data dictionaries, data lineage, and data governance systems. They observe that these systems often lack intuitiveness and heavily rely on what is referred to as 'tribal knowledge,' where success depends on knowing the right expert within

the organization. Documentation tends to be sparse and inconsistent, posing significant challenges.

They mention that their organization has started using a third-party tool to assist with data lineage scanning. However, this solution still requires considerable human intervention after the initial scan. The participant expresses optimism about the future, hoping for advancements that enable fully automated systems where data assets are automatically documented as they are created, enhancing efficiency and accessibility.

The participant discusses challenges faced in implementing effective data lineage within their organization. They note that while they can manage data lineage at a basic level within specific systems like Databricks or within isolated data storage solutions like data warehouses or lakes, they struggle to trace the full lineage from backend ERP systems. This limitation has slowed their progress in establishing comprehensive data lineage.

The participant highlights that while the right tools for comprehensive upstream data lineage are still lacking, the organization is committed to improving their capabilities in managing and cataloging data to facilitate better data governance and usability.

Despite these advanced tools, they encounter challenges similar to others when attempting to establish comprehensive end-to-end data lineage. They initially hoped to achieve full lineage across all systems, but found lineage from source systems, particularly transactional systems like ERP software, challenging to track due to their complexity.

As a result, the organization has shifted its focus from trying to track lineage from the source systems to concentrating on the analytics platform and outputs. They have successfully managed to establish lineage within the analytics domain, understanding how reports and data visualizations are fed and which attributes are most utilized. However, establishing lineage from the original source systems remains a significant challenge.

The participant discusses their experience with selecting tools for data lineage, noting that they evaluated two major tools, which they found both user-friendly and effective. One tool, known for its open API architecture and ease of use, is particularly appealing because it allows both analysts and engineers to utilize it effectively. This tool, along with another comparable one, primarily relies on query logs to trace how different tools interact with data in the data warehouse.

These lineage tools track the logs of queries pushed down by reporting tools to the data warehouse and then internally create a lineage map. Another segment of data visibility tools they considered relies on pipeline logs to build lineage, which might not capture the interactions with reporting tools as effectively.

The organization decided on the first type of tool that reads data logs from all queries, effectively solving their lineage needs from the point data lands on their analytics platform to its end use. However, they acknowledge that the lineage from source systems remains a challenge.

Additionally, participants highlighted the potential role of generative AI in improving metadata consistency. They are exploring whether generative AI, with its capability to process vast amounts of data analytics metadata, can standardize metadata to enhance data management processes. The belief is that consistent and accurate metadata is crucial for

the effectiveness of guided analytics and other advanced data processing techniques.

## 3. Overcoming AI Anxiety with Education and Engagement

Participants shared their experiences in addressing concerns about AI within their organization. They acknowledge that fear around new technology is real and common. To counter this, they remind their teams that technological evolution is not new; it has happened many times and will continue to occur. They encourage viewing generative AI as an opportunity rather than a threat, illustrating how it enables data engineers to interact with AI through simple SQL statements and API calls, enhancing their capabilities far beyond what was possible with traditional methods.

One leader uses an analogy comparing the evolution from traditional cars to super-fast cars to emphasize how technological advancements simply mean performing tasks faster and more stylishly, while the fundamental human involvement remains the same. They suggest that generative AI acts as an accelerator, enabling faster delivery of technology solutions.

The participant reassures their team that adapting to new technologies is essential for progress and not as daunting as it might seem, as generative AI offers user-friendly interfaces that ease the transition. They conclude by sharing that, although there is still some fear, the excitement about the potential of AI is growing within their organization, demonstrated by more engaged and positive responses over time.

Attendees discussed strategies their organization employs to address fears surrounding AI among their employees. They highlight initiatives aimed at demystifying AI, such as providing access to a restricted version of a generative AI platform. This allows employees to experiment with AI within a controlled environment and learn through direct interaction.

Organizations host educational sessions where employees who have engaged with AI share their experiences and the value derived from their use cases. Additionally, many in the group are planning more comprehensive AI training events in the coming months, which will include a series of courses at various levels and keynote speakers to further enhance learning and engagement.

Alongside AI-focused education, participants note the simultaneous emphasis on strategic workforce planning and skill development. This includes training not only in AI and analytics but also in vital soft skills like collaboration and problem solving—areas where AI typically has limitations. They also stress the importance of developing business acumen to help employees better understand how to interact with AI systems effectively.

By creating these learning opportunities and fostering a culture of engagement with AI, organizations aim to build a well-rounded skill set among employees, ensuring they are prepared for future technological advancements and changes in the workplace.

For one leader, the company's human resources department took the lead in driving the AI training initiatives. They capitalized on the expertise of subject matter experts from various business and technical teams to develop relevant content. The training content is managed through an external, third-party learning platform. While much of the material is sourced from platforms like LinkedIn Learning and Coursera, some content is created internally to

address specific organizational needs. This approach involves a collaborative effort between HR and subject matter experts across different areas.

Another participant discussed how their organization is not primarily concerned with AI replacing jobs but rather focuses on maximizing the benefits of AI to maintain competitiveness. To address this, they have implemented weekly open sessions allowing employees to discuss challenges, explore use cases, and learn from each other about AI applications.

## 4. AI as an Enhancer of Productivity and Efficiency

Taking a broader perspective, participants noted that their companies have long focused on enhancing team efficiencies. For instance, they have leveraged 'citizen development' technologies to drive improvements at the individual team member level. They've utilized tools like Power Automate and the Power Suite, which boosted energy and engagement by simplifying tasks and allowing team members to focus on more value-added activities.

Also, attendees emphasized the importance of not defaulting to AI for every problem. It is crucial to assess each issue and determine the appropriate solution, whether it be RPA, AI, automated data pipelines, or simply ceasing certain activities. The focus should be on identifying problems first and then finding the right solutions, rather than immediately opting for AI applications.

With this goal in mind, organizations have established pipelines for submitting ideas related to generative AI, which has revealed many analytics use cases previously considered too challenging. These are now seen as manageable, often involving simple tasks like regex-based find-and-replace operations and audit automation pipelines, rather than complex AI-driven solutions.

This initiative has been successful in demystifying AI for the workforce, gradually increasing user engagement. It began with spreading awareness and has progressively increased the number of users, particularly among employees who were aware of but had not previously used AI technologies. The interactive sessions have helped employees identify relevant use cases, leading to significant adoption and productivity gains through what is referred to as 'virtual assistants'—tools that enhance efficiency across various teams.

One leader described how their team meets with various departments to ensure that actual processes align with documented ones. They mention the development of an in-house tool similar to externally available technologies, which utilizes traditional machine learning and text analysis to compare authoritative sources with internal documents, and even generate control statements or risk themes.

Another project involves recording walkthrough meetings to capture discussions and action items, which are then used to automatically generate workflow or process flow diagrams. This tool was developed by someone on their architecture team and has proven particularly useful for those who, like the participant, are visual learners. By generating visual representations of processes, they aim to enhance understanding, save time, and improve consistency in documentation—areas often cited for quality issues in audits.

Another leader described their use of AI in the software development space, particularly through leveraging net API to enhance productivity. This tool is seen as an

assisted AI coder, ensuring that while productivity increases, the accountability and standards of their secure SDLC process are maintained.

They also mention the adoption of AI for summarizing meetings and lengthy contracts, utilizing AI as an accelerator rather than a decision-maker. Another significant application involves scanning images and automatically converting them into document formats for data entry, streamlining what was traditionally a manual process.

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They highlight that not every task is suitable for generic AI, with a recent shift in focus toward engineering and operations. In engineering, the primary application is document summarization, crucial due to the volume of product sheets and related documents. The second focus is embedding AI into product engineering to enhance the offerings to customers.

Additionally, the participant notes a significant demand across teams for AI-powered chatbots, with suggestions to use offerings from large cloud providers. They are evaluating how tools like Tableau, Power BI, and similar products can be integrated with AI capabilities to avoid unnecessary proliferation of solutions.

Participants discussed their use of AI to scale the analysis of unstructured data, a task that was historically challenging. They've leveraged AI to efficiently extract valuable information from customer interactions, such as free-form comments on surveys and calls received in their contact center. This capability enables them to identify and proactively address customer pain points, potentially driving the development of new self-service options.

From an operational perspective, AI has been used to summarize information within their teams, aiding in the analysis of financial data received from partners. Additionally, AI has been utilized to create companions for their operational teams. For example, their contact center handles thousands of pages of training documents which are difficult to navigate during live customer interactions. The introduction of an AI-driven companion allows team members to use natural language queries to quickly find the necessary guidelines, enhancing efficiency and response times.

In the analytics domain, other organizations are exploring AI's capability to convert freeform text into structured information. One notable project involves analyzing warranty claims to detect unreported issues. For instance, they use AI to scan warranty logs to verify the presence or absence of refrigerant leaks. This application of AI helps in validating claims and ensuring the accuracy of warranty data.

This suggests that collaborative tools combined with scanning features could be instrumental in automating and improving these systems. One attendee highlighted a specific example from their organization involving a legacy table that, despite being 20 years old, remains one of the most used and valuable data assets. Although this table is well-documented, largely because it is a legacy asset, its documentation still resides on outdated platforms like local drives in Excel format.

However, they emphasize a strong focus on other aspects of data management such as business terms and metadata cataloging. Despite the challenges with lineage, they have made significant progress in these areas. The organization manages to catalog and create business terms effectively, helping to bridge gaps in understanding data from different systems accumulated over 35 years of data warehousing. This effort aids in connecting various fields across systems, enhancing searchability and understanding for users looking to identify where data resides.

A data and analytics leader at a university has been actively exploring new generative AI technologies. An AI Council was established a year ago, driven by the president's ambition to keep the university competitive and innovative.

On the business side, the university is assessing use cases that include educational programs. They are developing projects to determine feasibility and potential value, although budget constraints present a significant challenge due to the financial climate in higher education.

Several projects are underway, including student support through AI-driven chat services and enhanced AI threat detection for email systems. Another notable initiative is the development of an AI teaching assistant that provides round-the-clock assistance to students, offering help with course content or quiz preparation as needed.

The university is also exploring AI enhancements for internal knowledge bases, aiming to improve the accessibility and usability of stored knowledge.

***For upcoming roundtables, feedback, and questions related to these sessions, please contact Mina Meman at mmeman@iianalytics.com. Thank you.***

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