**Key Data And Analytics Trends To Watch In 2023**

[Suresh Sethuramaswamy](https://www.forbes.com/sites/forbestechcouncil/people/sureshsethuramaswamy/)

Forbes Councils Member

[Forbes Technology Council](https://www.forbes.com/sites/forbestechcouncil/)

COUNCIL POST| Membership (fee-based)

Dec 15, 2022,06:15am EST

  [*Suresh*](https://www.linkedin.com/in/sureshsethu/) *is a Data and AI Engineering lead for the financial services industry at Microsoft and a senior member of IEEE Computer Society.*

As someone who is passionate about data analytics and constantly keeps an eye on tech trends, I have compiled a list of what we will likely be hearing more about in 2023 in the data and advanced analytics space. These are my personal opinions based on conversations with analytics peers and input gathered from industry-leading conferences.

**Data As A Service**

As the future of collaboration expands beyond the enterprise, the need to share governed data, models and insights with other organizations in the same industry is hitting an all-time high. Organizations with homegrown intellectual property developed through decades of research and innovation, such as those in financial services or the energy sector, will now look to market their tools to their peers. This will prompt companies to build data-as-a-service platforms with a SaaS-like experience.

PROMOTED

**Augmented Analytics**

Traditional analytics is about producing insights from data, usually in the form of predefined queries and reports obtained based on previously collected user requirements. A recent trend in data analytics leverages the power of machine learning and natural language processing to automatically generate analytics reports, which otherwise may require seasoned data engineers and scientists to spend weeks or months preparing data for business intelligence. Augmented analytics will empower business users to get instant insights for ad hoc queries (such as "How much marketing budget should I allocate for the London market?") from the data lake directly without needing to engineer data pipelines.

**Data Ops And Observability**

As more and more organizations are becoming data-centric, the principles of Agile for application development and monitoring the operational health of applications will be relevant to data as well. Data-centric organizations will likely make their DevOps teams work with data scientists and engineers to provide the tools, processes and organizational structures to support the data business arm. Fundamentally, the goal of DataOps is to deliver new insights with increasing velocity and provide an observability framework to monitor the health of data and its usability by reducing data downtime.

**Data Clean Rooms**

As with data monetization, many organizations are increasing collaboration with third parties by sharing their sensitive data and intellectual property in an external-facing environment called distributed data clean rooms. The fundamental success factor of a contemporary data clean room is the ability to combine partner-provided data with an organization's own proprietary data while adhering to all regulatory compliance, safeguarding privacy and maintaining a competitive advantage.

Data providers should anonymize and encrypt the data and models before sending them to clean rooms for collaboration. Media and advertising industries, as well as some highly regulated industries, such as financial services, energy and healthcare, may largely benefit from this collaboration.

**Synthetic Data Generation**

Due to increased data privacy concerns and the hardships associated with obtaining real scenario data, the need for artificially produced data will grow tremendously in 2023. We can already see more players in this space offering synthetic data for any given use case. In the future, we may see large enterprises implementing projects to draw patterns and distributions from real data to generate a large volume of synthetic data for machine learning model training.

**Data Mesh**

The term was originally coined in 2019 by Zhamak Dehghani, and today, we are still seeing a lot of interest in this area driven by the framework of treating data as an asset and democratizing access to enterprise data. As more organizations continue to implement data meshes, multiple business lines will come together to share and benefit from each other's data. Those that are running on the public cloud will take full advantage of the array of cloud services to implement all [four principles of the data mesh framework](https://martinfowler.com/articles/data-mesh-principles.html): "domain-oriented decentralized data ownership and architecture, data as a product, self-serve data infrastructure as a platform and federated computational governance." The applications that still run on-premises or on the private cloud may have to hunt for tools in niche areas of the data mesh, such as data virtualization and federated governance.

**ESG Data**

As the pressure mounts from stakeholders to reduce carbon emissions, companies are highly motivated to include ESG in their business structure. Net-zero and carbon-negative strategies are ramping up across the board, from small private firms to large enterprises. Identifying the appropriate categories to measure, collecting data on these categories, measuring the company's progress toward their sustainability goals using these metrics and modeling an approach to produce sustainability reports will become the most common data analytics area.

While my list is purely based on my being an active advisor and observer of the industry, there may be other trends from the metaverse and Web3 data analytics in the coming years.