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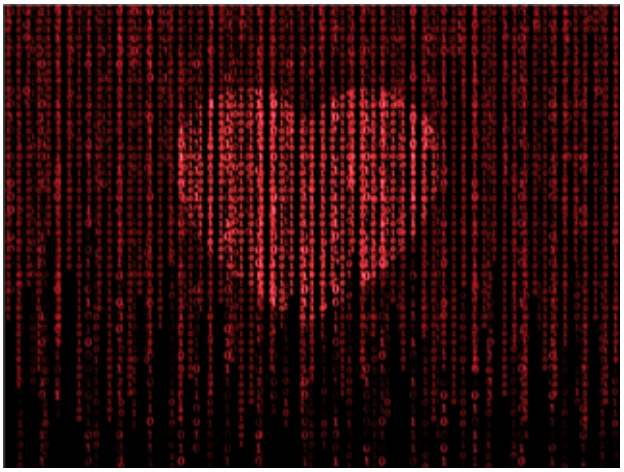
The Role of Augmented Data Management in the Workplace

By David Roe | *Jul 29, 2020*



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If data sits at the heart of the digital workplace, then managing data and enabling organizations to get best insights out of the data they have is also key. As the amount of data entering the enterprise explodes, technologies to manage these swollen data silos are also being developed at an impressive rate.

“To innovate their way beyond a post-COVID-19 world, data and analytics leaders require an ever-increasing velocity and scale of analysis in terms of processing and access to succeed in the face of unprecedented market shifts,” said Rita Sallam, research vice president at Gartner, of a recent study the company carried out into these emerging technologies and trends.

In field of data management — the practice of collecting, keeping, and using data securely, efficiently, and cost-effectively — there have also been major developments, one of which Gartner identified as augmented data management. Gartner explains that augmented data management (ADM) uses machine learning and artificial intelligence techniques to optimize and improve operations. It also converts metadata so it can be used in auditing, lineage and reporting to powering dynamic systems. ADM products can examine large samples of operational data, including actual queries, performance data and schemas.

Using the existing usage and workload data, an augmented engine can tune operations and optimize configuration, security and performance. Before doing this, however, enterprises need to know how ADM fits into the enterprise.

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Automated Data Analysis

As organizations are hit with more, complex data, users are struggling to identify important actionable insights, Tapan Patel, senior manager for product marketing at Cary, NC-based SAS, said. Data scientists and data engineers proportionally spend more time manually accessing, preparing and managing data. To improve efficiencies, avoid mistakes, and speed up availability of data for analytics or AI, data management tools are ideal subjects for automation.

To help data engineers and data scientists, augmented data management employs machine learning algorithms that automatically detect and analyze data usage to blend, find data relationships, and recommend best actions to take for cleaning, enriching and manipulating data. These algorithms not only automate mundane activities, but also find regularities in data to the point that the algorithms learn and gain skills.

"With mundane data management tasks automated and learning from experience, users can make data ready for model building quickly and easily, freeing up analytics and IT staff to work on more innovative and value-added opportunities," he said.

The Importance of Data Mining

Over the past decade, there has been a shift in focus from merely managing data to managing information. Enterprises now realize that a confluence of trends, including increased regulations and litigation, sensitivity toward data privacy, and accelerated technology development, has resulted in the need to manage and control all data under its roof and convert them to insights. If information is the corporate gold mine, Kon Leong, CEO and co-founder of Milpitas, Calif.-based ZL Technologies, said, then ADM is the mining equipment.

It is a necessary component to manage across all unstructured and structured data, using machine-learning and artificial intelligence to enable total data control starting from mapping, classifying, indexing, retaining, analyzing and deleting data to advanced capabilities using such as similarity matching, predictive coding, sentiment analysis, visualization and natural language processing. "Augmented data management is the emerging paradigm where managing internal and external data through its entire life-cycle will not only reduce risks and satisfy corporate obligations in data governance. It also provides comprehensive insights that will boost corporate performance to the next level and beyond," he said.

ADM in the Workplace

By extension, augmented data analysis at the heart of the digital workplace precipitates the emergence of what might be described as an augmented workforce. The negative aspects of the current situation with COVID-19 and the associated economic downturn have presented a shift in the workplace, which is driving more opportunities for growth, greater visibility into the B2B buying process, and ensuring quality customer experience throughout the buying cycle, according to Rashmi Vittal, CMO at Foster City, Calif.-based Conversica. “This change introduces intelligent automation into the workplace, something we refer to as the Augmented Workforce,” he said.

An Augmented Workforce describes a workplace where business professionals work alongside artificial intelligence to drive better business outcomes. One such AI-driven technology making dramatic changes for customer-facing teams, including sales, marketing, and customer success, is an Intelligent Virtual Assistant (IVA).

IVAs in turn accelerate revenue across the customer journey by autonomously engaging contacts, prospects, customers, or partners in human-like, two-way interactions at scale, to drive towards the next best action. Whether scheduling a sales meeting, gauging interest to buy additional products or services, or politely but persistently collecting overdue payments.

A Future With ADM

And for the future? New York City-based Dataiku’s chief customer officer, Kurt Muehmel believes that the future of augmented analytics is one where organizations can build for themselves, systems that span the spectrum from fully automated to fully manual processes, adapting the level of automation to the particulars of a given use case.

A large number of use cases will benefit from complete (or nearly complete) automation, where one could feed a dataset and a target to an automated pipeline and get back cleaned data with engineered features, together with the best performing model on top. This automation of machine learning projects — whether those projects touch company operations, processes or product development — is the essence of the idea of "enterprise AI" and would allow for greatly accelerated AI modeling, while ensuring that a person remains in the loop when needed. “Indeed, one of the biggest roadblocks to enterprise AI is not a question of putting machine learning models into production or even of creating the models themselves. Rather, it is data management, which (while seemingly simple) is essential to enabling the organization to leverage data from the bottom up, democratizing data use across teams and roles, Muehmel said.

According to Muehmel, with the power of augmented data management, organizations can efficiently solve complex problems, as well as, empower their teams to work with data. “That said, the reality of most augmented analytics or AutoML tools and systems today is that they

are not completely automatic, as the pre-built automation solutions don't fit the needs or regulatory requirements of the business. Therefore, internalizing the ability to build systems that are automated and augmented to the appropriate degree is where they will achieve a real competitive advantage," he said.