TimeXtender streamlines and speeds-up data discovery
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Today, artificial intelligence and other modern analytic techniques are radically changing how business people use information in decision making. We are in an exciting era of data democratization – data scientists need timely access to data for modeling and business users are increasingly requiring quicker access to more data needed to make better business decisions. When it comes to information, we are entering a new age of discovery where business must be enabled to extract more value, more easily and consistently, than ever before. Meanwhile, new privacy regulations, such as the GDPR, require levels of data management and governance previously unseen. To provide unprecedented levels of access to data in a compliant manner, IT requires an integrated, automated delivery environment that spans all data sources.

Data enables AI, but integrating and automating access to timely, relevant and reliable data is what allows AI to really shine. As TimeXtender CEO, Heine Krog Iversen, highlights, “I think the biggest issue that all companies are facing today is to access to data. The number of data sources is growing rapidly, and the complexity of use cases is also growing – in the old days it was reporting, now it’s AI, machine learning, and predictive analytics.”

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Solving data access challenges for AI

The Discovery Hub from TimeXtender addresses the challenges around data access by providing a platform to easily merge data from 100+ enterprise data sources using agile data modeling techniques to build a reliable Operational Data Exchange (ODX) in a structured, governed and secure environment, thus speeding up organizations’ digital transformations. The ODX serves as a central point for all data needs by providing appropriate access to IT teams, analytics teams, and data scientists that require data for advanced AI modeling. This allows data scientists to obtain timely, compliant access to data and frees them from the laborious task of preparing data, so they can focus on valuable modeling activities.

As a platform that enables instant access to data, the automation under the hood of the Discovery Hub results in greater access, speed,
and agility with data. This allows organizations to simplify the process of preparing data for AI services such as Azure ML, thereby reducing the time it takes to model and ultimately to operationalize the results.

And in operationalizing the results of the AI process, the Discovery Hub shines again. The Discovery Hub helps this operationalization by relating AI data to other business data and systems for maximum impact. Siloed data, such as the result set from an Azure ML model, cannot be leveraged to its fullest extent unless it can be combined with other business data. For example, a business could benefit from the results of its Azure ML predictive maintenance model alone, but the full benefit of those results is realized when that data is integrated more broadly. In this example, the results of the Azure ML predictive maintenance model, based on Azure IoT Hub data, can already be integrated into the ODX and related to data from a CRM system containing scheduled maintenance calls, ultimately helping the business to be better prepared and act faster. All of this can be done in the Discovery Hub while still providing a structured, governed and documented enterprise analytical environment. Coupled with Power BI as a visualization layer, the business now has the combined power of the Microsoft data and AI world at its fingertips.

But when the customer base started growing into the thousands in multiple countries and the Stock Keeping Units (SKUs) started numbering into the tens of thousands, keeping his finger on the pulse of business became impossible. To complicate matters further, extreme seasonality meant that the product mix changed two to three times per year resulting in redundant SKUs and excess inventory.

To help solve the customer’s challenges, TimeXtender’s certified consulting partner recommended the Discovery Hub to create an enterprise-wide analytics platform to empower everyday reporting and dashboarding across business units while also providing an intelligent platform that could be leveraged to build AI models to provide deeper insights.

Through a rapid implementation, the consulting partner deployed the Discovery Hub in less than a day and ingested more than eight years’ worth of sales and inventory data from four subsidiaries into the ODX in the next day. Through the flexibility of the platform, the consulting partner could branch its consulting team, allowing one team to continue building the enterprise-wide analytics platform to provide everyday reporting and dashboarding while the data science team went to work on leveraging the power of Azure ML to build a set of intuitive and insightful AI models.

Using the prebuilt Retail Forecasting model from the Azure AI Gallery as a starting point, the data science team used the Discovery Hub to prepare the data and through its hybrid capability seamlessly moved the data from the on-premises SQL Server environment to Azure SQL DB to be used for model training and processing. Once the model had been suitably
focused to cater to the complexities of the data and forecasting requirements, the forecasting output data was incorporated as an additional data source into the Discovery Hub, allowing the analytics team to use the results as part of the enterprise-wide analytics platform.

Insights gained during the initial deployment allowed the customer to identify multiple areas where its business could improve. Even more importantly, the continual flow of data means the customer continues to gain new insights – all because the Discovery Hub continuously adds data to the Azure ML environment and the ML model’s output data is integrated into the enterprise-wide analytical environment, rather than siloed.

**Microsoft Partnership and the Partner to Partner Ecosystem**

TimeXtender has been a Gold Certified Microsoft Partner for the last 13 years and knows that the partnership provides a strategic advantage. From working closely with the Microsoft field teams on successful co-sell opportunities in over 10 countries, to working with the Microsoft engineering teams on the latest AI innovations, the Microsoft partnership shows continuous value.

In addition to TimeXtender’s direct partnership with Microsoft, as an ISV, working with consulting partners in the Microsoft Partner Network assures TimeXtender that these partners have a high level of competency. This allows TimeXtender to quickly upskill partners and certify them to deploy the Discovery Hub. For these partners, not having to worry about building the base from which to deliver successful AI projects frees them to focus on providing deeper, business value adding AI work in a faster time-to-value for customers.

“The Microsoft partner ecosystem provides a high value to the customer. The end customer can realize faster time-to-value because the Discovery Hub helps partners implement solutions 6x faster and normally 25% cheaper than building the full data foundation by hand.”

— Heine Krog Iversen, CEO, TimeXtender