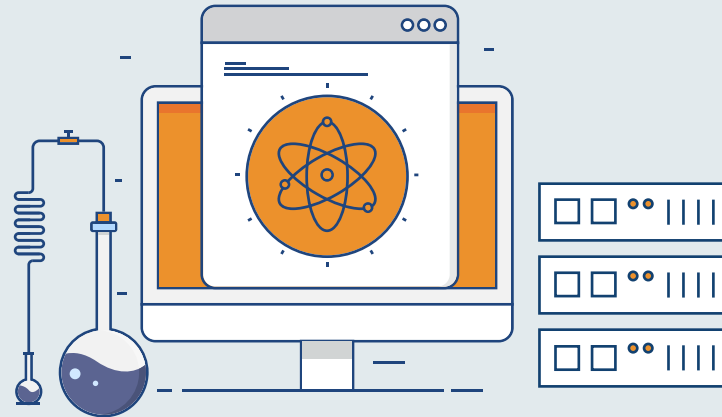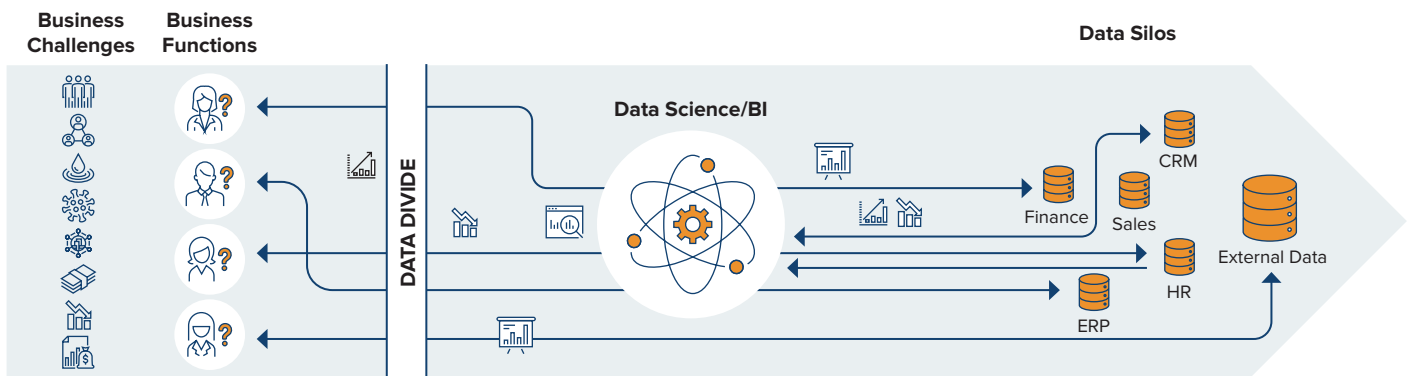# Bridging the Data Divide: Bringing Data Science to Business Workflows
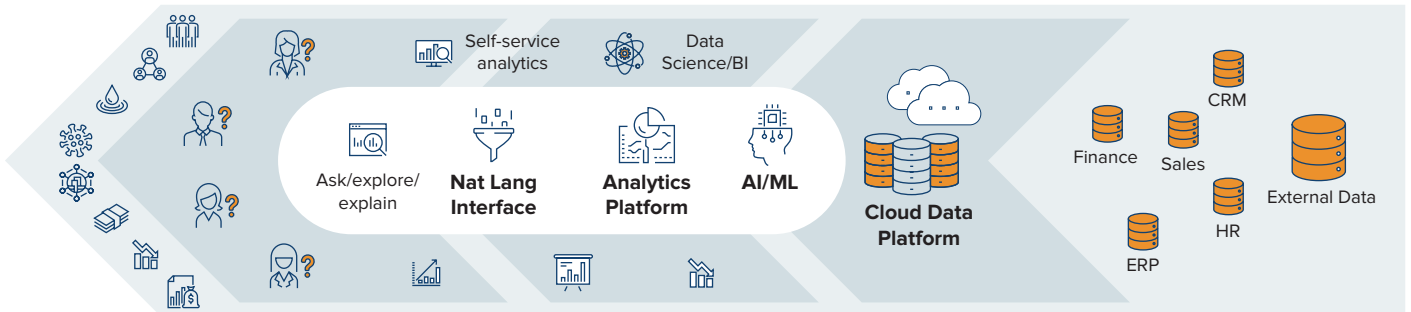
By Philip Carnelley and Giovanni Cervellati

Current State

Future State

As the pandemic significantly reshapes the business environment, enterprise collaboration is taking on a more meaningful role, with expanded scope to help drive business outcomes. Given the changing business context, it is important that businesses opt for suitable solutions such as workflow management tools for business continuity. Workflow management tools can help to empower employees by eliminating current work challenges and driving efficiency while providing clear visibility of all aspects of accomplishing business goals in an organization.

The Data Divide

Leveraging data for decision making is not as prevalent in organizations as it should be. Most enterprises rely on static reports for business intelligence. Often these prebuilt reports are not interactive, nor flexible enough to answer business questions at the speed required. Often the data is not trusted, thanks largely to siloed, incomplete, obscure, and unprocessed data, which in turn requires advanced skills to turn into insight. This gulf between data and insight is the data divide. Consider:

○ A marketing manager wanting to decide what offers to promote: they need to understand customer history, what they are buying or searching for, how quickly, and whether orders can be fulfilled given supply chain constraints. They need to decide on the scale

of the offer and the required level of discounting. This requires joining and analyzing diverse data sets from different systems, choosing prediction and correlation algorithms to interrogate it, and then visualizing the results.

○ A bank's relationship manager wants to advise a customer about what investment products and services they should consider in their particular situation. This requires locating and pulling together data about the customer's purchases, products, and goals. It also requires, integrating that with their account history, propensity to buy similar products, and market/product performance data.

These business users are decision makers trying to bridge the data divide to get essential information, insight, recommendations, and advice. But they often lack the skills or resources to do this. So today, they must rely on prebuilt reports, try to pull data together into spreadsheets, or wait for dedicated data analysts and IT to do it for them. If they want insights based on advanced analytics, they must pull in data scientists, educate them on the business problem, and then wait while a solution is built — and then pull them in again, each time a change is needed.

Businesses recognize the problem. In a recent IDC survey, 66% of execs cited siloed data as a top 3 barrier to implementing their data/analytics strategy. Almost as many said that business data is difficult to find or access for analytics purposes, preventing effective decision making. But they want their business users to be able to use data for smarter decision making: the top skills sought in non-IT staff were all related to data:

- Analytical skills
- Ability to see the big picture, and
- Ability to work with data

Given this emphasis, it's no surprise that IDC data shows that the top two IT skills that organizations are looking for today are data analytics and data management. Execs want to support their business users. But IDC believes that rather than simply chasing these skills by recruiting, organizations should be considering how to build automation and intelligence into the workflow. This will reduce the need for specific IT skills, but not the capability, and provide the support employees need through easier-to-use tools, not through staffing up support functions as the default option.

Technology Can Bridge the Divide

Advances in technologies such as the cloud, visual analytics, AI, and machine learning mean that technology exists to allow business users to get desired insights and focus on what really matters: extracting value from data. By empowering all users, the business can ask questions of data without always relying on data scientists and experts, freeing these precious resources to focus on more complex analytical projects. Appropriate prebuilt algorithms can be offered to business users with guidance on their use automatically as part of their business workflow. This empowers business users to make informed predictions, visualize trends, and drill down to ask questions in natural language and discover actionable insights without support. They can enhance prebuilt reports by BI analysts with visualizations and analysis. Software company Tableau, for instance, calls this approach Business Science. This means using artificial intelligence and machine learning in analytics products to lower the barrier to using data science techniques, allowing employees to use the power of AI for better, faster decision making.

Leading organizations are building a modern, cloud data platform to support these capabilities. They are creating an integrated dataset for customer and other business data, replacing outdated, hard to manage data warehouses fed by unlinked operational systems. The first step for many is data modernization and migration to the cloud to give easier access, agility, and scalability. IDC research has shown a correlation between establishing an enterprisewide data platform and success in digitally transforming the business.

Tapping into an Ecosystem to Close the Gap

Successful organizations also leverage an ecosystem with partners that have already devised solutions frameworks and architectures, tight integrations, and training and education assets, and tested them in the field. Working with an ecosystem brings talent, experience with technology, expertise in strategy and use case design, and change management and industry know-how to accelerate data transformation and improve outcomes.

In IDC research

75%

of company execs said that their data and analytics strategy is critical to their business resilience going forward. Yet the majority also said that "a lack of skills among business users inhibits our ability to execute on our data analytics strategy." This is a board-level, strategic issue.

CxOs need to ensure that decision makers — and in many organizations, most staff are decision-makers at some level — are equipped to make the best evidence-based decisions. That means giving them trusted, integrated data from a well-governed data platform, feeding intelligent tools that enable them to ask questions of that data intuitively to guide the decisions they make. They need to be presented with a holistic view of the business's information assets, and they need information to be presented in a timely manner.

About the Tableau, Snowflake, and Deloitte Ecosystem

Tableau, a Salesforce company, has a simple mission: to help people see and understand data. This is true of our products, and it is true of our ecosystem. Together, Tableau, Snowflake, and Deloitte help our customers transform their businesses by making it easier to modernize, centralize, and unify data in the cloud, combine it into a single source of truth, and derive scalable, fast, actionable insights by implementing agile, self-service analytics capabilities to see and understand data. This empowers businesses to innovate, automate, and adapt their business models to capture new market share and compete in any environment.

Learn more about Tableau Business Science