Consumerizing Data Science for Digital Business

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Knowing more about your business and knowing it faster than others is the best way to power innovation and stay ahead of competition. Often more than 70 percent of the data referred as Dark Data, though it exists with a purpose in the enterprise is not used. In the world of digital business, the data landscape is dramatically expanding. Data is now being generated by just about everything and everybody around us, including online transactions, mobile devices, searches, social media, smart systems, Internet of Things (IoT) smart sensors etc. Such data is enabling us to make confident predictions about the future. Integrated Actionable Insights is a critical enabler to achieve Business Outcome along with Business Transformation. The Nexus of Big Data (Information), OT-IT Convergence, IoT, Cloud, Mobile, Enterprise and Consumer Social data is creating new potential opportunities that necessitate the transformation of current Data and Analytics landscape, to maximize its value. Leading companies need to exploit the power of big data to excel and stay ahead of competition and not just rely on enterprise IT data to control performance. The analytics maturity journey from reactive to proactive can no longer be left as a choice but is now vital for survival. The four key strategic objectives of Big Data namely, operational excellence, customer intimacy, new business innovations and risk management are best achieved by exploiting the power of Big Data. More importantly, the power of analytics must be easily accessible by business users and not limited to niche data scientists and analytics professionals.

Streamlining the 'data supply chain'

In the quest for being successful in the Digital Business, organizations are accelerating to streamline the 'data supply chain' from creation to business outcome. The increasing availability of systems and the establishment of processes to curate both structured and unstructured data have turned the spotlight on Data Science. Data Science is becoming vital for business in the digital era. Data Science brings value in every step of the analytics journey from descriptive-diagnostic-predictive-prescriptive. Regardless of the size of a business, the power of data science and more importantly consumerizing it to the business users is essential to maximise the strategic value.

The impact of Data Science programs in enterprises is typically gauged by the impact on the bottom line of the business, the ease of use of the solution and the level of engagement of the business stakeholders from initial definition to its final deployment. The way to exploit the power of data and bring out over 100x its value is a three-step process. First, the real-time data needs to be processed and correlated with historical and empirical data. Second, Data Science models need to be applied to predict what will happen. Third, the models need to be able to prescribe the action that needs to be taken.

Analytics when applied with the domain context enables organisation to transition from Data Science to Decision Science. The transformation from an instinct, judgment driven and manual action based organization to a data insights driven and automated action based organization is pivoted on three pillars – data, Domain and Technology Solutions This transformation of bits to business outcomes demands a right mix of domain experts, data scientists, and technology solution experts to consumerize the solutions for business users. Building such a capability often requires augmenting internal resources with external trusted partners for successful Decision Science implementations.

Clearly such an implementation requires a holistic approach. This would necessitate data integration, domain business processes, Data Science driven modelling, managing and consuming these models, seamlessly integrating it with the analytical dashboards to visualize the insights contextually would effectively consumerize Data Science for business users to deliver significant business outcomes. Furthermore, such models need to be self-learning to support continuous enhancement while also improving their accuracy of prediction.

An integrated solution which seamlessly ties together both the modelling and consumption is vital. Accomplishing this as a bespoke solution often results in longer cycles and iterations with uncertainly of the outcome and desired business impact. Considering that the time to market is often a golden touchstone, pre-built industry specific analytics solutions with integrated Data Science work bench, Big Data integration, domain specific models and consumerization of analytics can yield quick and rich benefits. This helps to expand the power of Data Science to Decision science and provide self service capabilities for business users to make more informed decisions quickly.