DATA IS GOING BIG

Data Is Going Big: It's time to turn information into one of your most powerful tools for competitive differentiation.

TEKMINDZ™

DATA IS GOING BIG

As big data makes its transition from a nascent stage of exploration to becoming a major driver for IT spending for enterprises across industries, organizations are increasingly understanding more about big data and the value it can potentially deliver to their business. Enterprises are already going beyond the early stages of experimentation and preliminary evaluations of what big data is and do they really need it. CIOs and CTOs are now beginning to address the case for acceptance and evaluate critical concerns associated with the adoption of big data. They are measuring the deliverable benefits for adding big data to their information management and analytics infrastructure and evaluating the skill-sets and structural changes it would require.

Phenomenal growth in data structures is causing significant business disruptions - creating massive technological, organizational and in many instances, industry wide transformations. As this phenomenon progresses and data becomes more and more complex, traditional form factors of data processing will fail in providing sufficient insights, limiting critical decision making. Big data addresses these limitations and traditional restrictions by warranting information processing of a vast array of new and existing datasets in new and innovative ways. The big data phenomenon will - unquestionably, majorly affect organizations, associated resources and information & analytics infrastructure. And to drive real business value from large, varied datasets, businesses will be required to draw a strategic focus on information infrastructure. Businesses must create an articulated strategy for their big data initiatives to address the challenges associated with not only the technological critical factors but, also, the appropriate alignment of their big data initiative with the desired organizational outcomes.

TekMindz is helping business understand how they can ride the big data wave and turn new forms of information into a powerful tool for competitive differentiation.

3 technological advancements that categorically enhanced computing technology capacity, creating a Big Data trigger

Computing technology witnessed theatrical transition with the concurrence of impelling technological advancements through year 2009, triggering a breakthrough shift in the information technology landscape. This led information processing to undergo massive transformation and datasets saw progressive growth in volume, velocity and variety with increasing complexity.

1 The coming of doubled memory and enhanced processor performance (Moore's law of increasing processing speed and memory capacity).

2 Price standardization of high-speed network and high capacity technology - bringing their usage to a conventional, established standard.

3 The continuing trend of storage technology migration from HDD (hard disk drive) to SSD (solid state disk) and flash-based storage for increased storage density - achieving increased I/O performance and high data rates.

Businesses have begun to understand that this new ecosystem fuelled with increased technological capacity would challenge traditional models and legacy processes. In many cases, it will render traditional models obsolete and, invariably, replace existing methods and information governance mechanisms with new, innovative systems.

Moreover, with the influx of additional information through sources such as social networks, machine data and unstructured data, traditional methods will become insufficient - creating the ideal breeding ground for rapid innovation to drive value addition through information.

Big Data: market driver for rapid innovation

Big data will be a catalyst for new and innovative forms of information processing. It will challenge existing forms of data sets and analytics capabilities and thus bring about a multitude of new and unconventional data management practices, architectures and platforms. Businesses across industries will need to address this large scale shift in traditional data forms and strategize to develop robust information governance and processing mechanisms to turn information into a valuable business asset. Data is continuing to witness unprecedented growth in scale and structure. With the emergence of new data sources such as information integration through social interaction and unstructured data, data is growing by mammoth proportions.

As data structures continue to grow big, traditional practices will cease to give way to innovative methods to effectively leverage data of such large proportions. CIOs and CTOs will therefore be required to prioritize and make information and analytics capability as one of their prime, and essentially the foremost, strategic focus. The rapidly shifting technology landscape -further challenged by the congregation of disruptive forces of social networks, mobile and cloud technologies - will drive new innovative forms of information governance, largely redefining the way information is consumed. The big data phenomenon will challenge existing business models, technical resource capabilities and information infrastructure dynamics, in turn, giving rise to new, innovative delivery models.

BIG DATA

OR JUST ANOTHER DAY AT THE OFFICE?

The big data phenomenon is brought about by rapid growth in data structures giving rise to new, more complex data types. The coextending advancements in the information technology landscape combined with large growth in data form factors to create a complex ecosystem challenges information analysis. Yet at the same time, it creates opportunities to effectively exploit information in ways never witnessed before. As data becomes capable of producing more useful and accurate insights to facilitate better decision making, it will create a greater need to adapt to significant advancements in order to drive much greater business value.

Big data is not a distinct technology or a uniquely measurable, stand-alone market of products. It is a composite market[1]. Gartner® defines a composite market as ''an ecosystem usually manifested when broad changes drive new technologies and practices into existing delivery markets and channels; initially forcing incremental revenue increases in existing markets, and as the practices grow and mature, they can become complementary to existing markets or eventually replace the aging traditional approaches and technology''.

Describing the big data cycle across the three stages of a composite market - additive, competitive and destructive – the study explains how big data, in a composite market, will become a major driver of spending changes and approaches. In its additive phase of a composite market, big data saw new solutions emerge; creating innovative combinations of software and hardware, typically implemented by highly skilled IT services professionals (both direct/internal staff and expert out-sourced staff).

Big data is currently in the phase of making its transition from an additive market to a competitive market, and a growing number of organizations are pursuing competitive or replacement purchases. Through the next three to four years, big data spending will progress as a combination of upgrades and replacements and the solutions would look to address the gaps in existing sets of BI and analytics tools. In the replacement or destructive phase, legacy practices and traditional approaches - which may even be existing best practices - will become archaic and rendered obsolete as new capabilities form basis of architectural and functional requirements. Invariably, as the composite market evolves and big data adoption becomes pervasive, it will come to serve as functional enhancements to existing, traditional practices. Ultimately, it would essentially become robust replacements for existing practices and tools and destroy the existing markets to become functional enhancements to existing traditional markets.

As big data capabilities become 'business as usual' and new functionalities replace traditional data management practices and analytics tools and platforms to leverage enhanced analytics and the Cloud, big data may simply be just another day at the office!

1. Gartner for Business Leaders: ''Big Data Drives Rapid Changes in Infrastructure and $232 Billion in IT Spending Through 2016''; Beyer, M. A., Lovelock, J. D., Sommer, D. and Adrian, M., October 12, 2012.

ANALYTICS SPEAK LOUDER THAN WORDS

Big data enhanced analytics can deliver exponential benefits for businesses. Big data analytics can turn information into a real asset to provide actionable insights and create competitive advantage[2].

Success with big data will require businesses to approach data in new ways, address unconventional data structures and devise new and innovative data management technologies, architectures and information processing capabilities. Enterprises must therefore develop robust information asset management strategies for the new economics of information. IT and business leaders need to plan for the best practice of absorbing big data into the data warehouse for analytics[3].

To drive tangible business value, it would be imperative for IT strategists to align this technological advancement - that enables processing of large volumes and broad varieties of data – with their organizational objectives and long term strategic roadmaps. Again, applying big data analytics and leveraging new data sets to effectively bring out real business outcomes will be critical for the success of big data deployment.

2. Gartner for Business Leaders: ''Invest in Information and Analytics to Benefit From Big Data''; Laney, B., Buytendijk, F., March 8, 2013.

3. Gartner for Business Leaders: ''Big Data Adoption In The Logical Data Warehouse''; Beyer, M. A., Friedman, A., February 7, 2013.

Organizations that effectively integrate diverse new data types and information of high value from various unstructured sources into insightful, coherent information management infrastructure will gain a distinct competitive advantage. For midsize enterprises, better actionable insights for more accurate decision is more important as there are limited resources available.

THE
BIG DATA
ECOSYSTEM
AND MIDMARKET CONTEXT

Midsize enterprises often see big data initiative as a challenge in terms of cost and resources. Helping midmarket businesses overcome this challenge, we enable businesses get affordable access to abundant data and the technology and extract crucial business value from information.

Midsize businesses can use big data to achieve improved and more collaborative business communication, and get smarter decision making.

WE KNOW
DATA
AND HOW TO LEVERAGE IT

The organizational objective of any big data initiative is to drive grater business value. IT leaders need to architect the right technology approach in-line with their strategic business vision and roadmap and to ultimately create a positive impact on the business outcome. Expanding existing systems to support big data applications beyond traditional components requires new analytical skills and approaches.

The big data phenomenon necessitates developing new technologies and information processing approaches. TekMindz's Business Intelligence and Information Management portfolio delivers proven expertise in data management to add tremendous business value to organizations. We help businesses get better insights for superior decision making by providing cutting-edge architectures and executing skill-transfer to empower organizations' internal talent pool and technical resources.

"TekMindz's traditional Business Intelligence and Information Management offering comprises of Business Intelligence, Performance Management, Analytics, Planning & Reporting, Dashboard creation, Financial Planning & Forecasting, KPIs and scorecards.

Working in close synergy with top technology vendors including IBM, Microsoft and SAP, we facilitate creation of Data Warehouse as well as MDM implementation and exploit advanced capabilities such as Online Analytical Processing (OLAP), Data Mining & Text Analytics and Business Analytics solution catering to organizational needs of Descriptive Analytics as well as Prescriptive Analytics."

About TekMindz

TekMindz is an IT consulting & technology services company with headquarters in India, serving clients across Asia/Pacific, Middle East, North America and Africa. Bringing together technology, people and processes across diverse sectors for organizations around the world, TekMindz enables business enterprises and governments to most effectively serve their customers and citizens.

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