

Opportunities in Analytics Led Innovation

Big Data and analytics have now become buzz words. As business is transforming rapidly and data in the world is doubling every year analytics and data driven decision making is being seen as a necessary skill that all organizations need to develop to compete effectively. In most Fortune 500 and Fortune 1000 organizations there is already some sort of an endeavor underway to use analytics across different functions such as sales, marketing, supply chain and risk. The world of analytics itself is transforming at an unprecedented pace. There is an incestuous cycle of data explosion, expanding applications, advancements in analytical techniques and increase in technology complexity. Navigating this can be very hard for organizations as they struggle to keep focus on the real purpose of analytics –making better decisions and driving innovation. In the following we highlight three major opportunities for analytics led innovation:

Cross Industry and Cross Domain Convergence: With blurring of value chain boundaries and emerging business models, a new era of convergence in the use of analytical techniques and frameworks is coming into play. Cross pollination of best practices across industries and domains will lead to significant breakthroughs in the development and deployment of analytics solutions. Application of new business models in existing companies is accelerating the opportunity and need for convergence, e.g. Microsoft entering Retail, Dell moving from custom configurations to pre-built offerings, etc. Historically, certain analytical methods were developed and utilized mostly in specific domains e.g. Yield Optimization in Airlines, Survival Modeling in Life Sciences, Lean Principles in Manufacturing, Diversification in Finance, etc. However, these methods have a strong potential to be used across domains and industries. For instance, Yield Optimization methodologies for online advertising industry, Survival Modeling concepts for Financial Risk analytics and Diversification for Marketing and Supply Chain.

Inter-firewall and Trans firewall analytics

Over the last 100 years, supply chain has evolved to connect multiple companies and enable them to collaborate to create enormous value to the end-consumer via concepts like CPFR, VMI, etc. Decision sciences will witness a similar trend as enterprises begin to collaborate on insights across the value chain. For instance, in the health care industry, rich consumer insights can be generated by collaborating on data and insights from the health insurance provider, pharmacy delivering the drugs and the drug manufacturer. In fact, this is not necessarily limited to companies within the traditional demand-supply chain. There are instances where a retailer and a social media company can come together to share insights on consumer behavior that will benefit both players. Some of the more progressive companies will take this a step further and work on leveraging the large volumes of data outside the firewall such as social data, location data, etc. In other words, it will not be very long before internal data and insights from within the enterprise firewall is no longer a differentiator. We call this trend the move from intra- to inter and trans-firewall analytics. Yesterday companies were doing functional silo based analytics. Today they are doing intra-firewall analytics with data within the firewall. Tomorrow they will be collaborating on insights with other companies to do inter-firewall analytics as well as leveraging the public domain to do trans-firewall analytics.

Discovery Driven Analytics: Most organizations look at analysis and data only when they have to solve a business problem or address a business priority. This problem specific way of looking at data is a method that starts from definition of the business problem, proceeding to identification of factors affecting the business problem, leading to hypotheses, which get tested on data to derive insights and recommendations. This approach is very effective for well-defined and scoped business problems. However it does not lead to innovation since it is constrained by the business problem being solved. In contrast a new approach is gaining ground. This approach is more discovery-driven and starts with agenda-less observations and exploratory analysis that can lead to hunches, pattern discovery and generation of new ideas and opportunities. The discovery driven approach becomes especially important in a world of data explosion and constantly shifting business environments where business problems start off as muddy before moving to become fuzzy and then eventually clearly defined where traditional problem specific methodologies can be used. The advent of Big Data technologies and the reduction in cost of memory and computing power will drive this trend even more. Although discovery driven approaches might not lead to short term ROI, organizations that want to innovate will need to devote significant time on discovery driven analytics.

In summary, as analytics becomes pervasive organizations need to spur next phase of analytics-driven innovation. The ability to learn best practices from across domains and industries, making the leap from intra to inter and trans-firewall analytics and blending discovery-driven analytics along with problem-driven methods will play a key role in separating the leaders and the laggards. Making this successful will require developing the right mindset before investing in the datasets, skillsets and toolsets.