

4 WAYS ORGANIZATIONS CAN UNLOCK THE POSSIBILITIES OF **BIG DATA**

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Future-ready predictive analysis infrastructures hold the key to gaining insights from data today, and into tomorrow

We are living in a data glut. The democratization of technology such as cloud storage and compute power, the proliferation of mobile devices, and our “always-on” lifestyles, has generated an overabundance of data. In fact, more data has been generated in the last two years than in the entire history of the human race.

Big Data Siloes Thwart Opportunity

We deal with data daily, collecting it from an assortment of disparate sources. But for many organizations, the data glut is a nightmare. With bits and bytes of data scattered across disparate information technology (IT) architectures, systems, and applications, these data resources often go untapped, limiting the ability of project teams, risk managers, insurance risk modelers, and data analysts to effectively harness that data for insights.

Without the right tools, all that big data is worthless. But current data analytics solutions are expensive, complicated, and rarely tailored to meet specific needs. As a result, many in the industry have struggled to harness the power of big data – until now.

Spurred by cloud technology (and improvements in cloud security, connectivity, and performance), the cost base for predictive analytics solutions has dropped significantly in the past few years, making smart data solutions more accessible.

In addition to cloud developments, machine learning and artificial intelligence (AI) applied to predictive analytics made a huge leap over the past few years, both in terms of capability and ease of application and deployment.

Leveraging the cloud billing model of paying only for what you use; intuitive, self-service business intelligence (BI) tools have brought smart data tools to the masses, making it possible for non-technical business users to own, manage, and analyze their data. Furthermore, the open source movement has made developing the means through which this software is developed more affordable and available than ever before.

Smart Data = Business Transformation

As more and more businesses adopt a data-driven approach, predictive analytics will increasingly become the norm and a core basis of decision-making for all businesses. By using data as an asset, companies can not only improve processes, but leverage that data in new ways to deliver enhanced customer experiences and targeted analytics into key areas of the business.

The possibilities are infinite. With cloud-based predictive analytics, organizations can:

- Integrate disparate systems for a powerful and holistic view of the organization and its customers.
- Connect and analyze legacy and real time data to improve services.
- Segment customers at the micro-level and develop targeted messages.
- Understand trends for enhanced decision-making.
- Sell data to external consumers. Open data may drive new digital business models, such as giving customers the convenience to securely access their services via third-party apps.

The Imperative for Adoption

As cloud, open source, and machine learning/ AI technologies accelerate, and more and more cost-efficient BI tools become available, businesses must act now to harness the power of siloed data. Those that do not adopt will be left behind.

The competitive advantage enabled by the learnings received from predictive analysis alone is a sufficient catalyst for change. With a 360 degree view, customer journeys can be tracked, their needs and behaviors better understood, tailored marketing becomes easier, and convenience-driven services can be developed.

Future-Proofing your Predictive Analysis Investment

As new and more powerful BI tools emerge, it's important to be mindful of the future. Today's tools may not be the best for tomorrow's needs. Given the pace at which technology evolves, forward-thinking organizations should ensure that they can adapt as technology changes.

But how can you extend the value of your investment in an ever changing environment? As we discussed earlier, enterprise-grade solutions are often complex, cost-prohibitive, targeted to very specific needs, and require technical know-how to pull even the simplest of reports. They're also subject to vendor lock-in and are static – they represent today's technology and can't evolve with time.

Furthermore, despite its many benefits, a pure cloud-based BI solution remains an evolving technology, which has yet to provide the range of functionality offered by traditional predictive analysis systems.

So what are your options?

By utilizing free and open source software, or an integrated infrastructure based on a flexible, open, and customizable architecture, businesses can realize actionable insights at a low cost – and easily adapt them as technology enhancements emerge.

In order to achieve this, the underlying architecture of your IT environment is key.

Here are four strategies to consider as you build a predictive analytics stack.

- 1. Embrace the democratization of the cloud** – The cost-benefits, security, scalability, and power of the cloud is uncontested. But if you're not using the cloud to collate your disparate data sources, now is the time to do so.
- 2. Embark on an infrastructure journey** – If you have a client environment, prepare to create the infrastructure to begin your journey into machine learning and predictive analysis.

- 3. Converge priorities** – Avoid siloed decision-making. Converge CTO/CIO and CMO priorities in roadmap planning. Focus on the results you want to achieve from your investment in predictive analysis through agile joint planning sessions, rather than serialized planning, or not planning at all.
- 4. Embrace open source** – Leverage open source technology and agile development processes. In addition, focus on prioritizing a DevOps culture and related technologies for faster turnaround and feature delivery.

A predictive analytics solution based on cloud and open source unlocks the possibilities of big data and checks off many of the requirements on your big data development list. Such smart architectures are vital to organizations, not only for proof of concept prototypes, but also to gather customer feedback.

By putting data-driven decision making at the heart of the business, instead of relying on hunches and guesswork, businesses can harness this wealth of information to drive an unparalleled competitive advantage.

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