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CHIEF DATA OFFICERS' GUIDE ON TRANSFORMING TO A DATA-DRIVEN ORGANIZATION

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INTRODUCTION

Strategic decisions versus emotion-based decision making, fact-driven choices versus gut feeling and personal opinions—the winner is almost always fact- and data-backed strategies. According to the World Economic Forum, at the dawn of 2020, the amount of data in the world was estimated to be 44 zettabytes. Seagate UK predicts that by 2025, there will be 175 zettabytes of data in the global datasphere. However, it is not this quantity that really matters. The game-changer is going to be: how will an organization utilize that data and work toward delivering greater customer experiences!

This whitepaper aims to assist Chief Data Officers in promoting a data-driven culture at their organization, helping them lead the enterprise on a digital transformation journey backed by analytical insights.

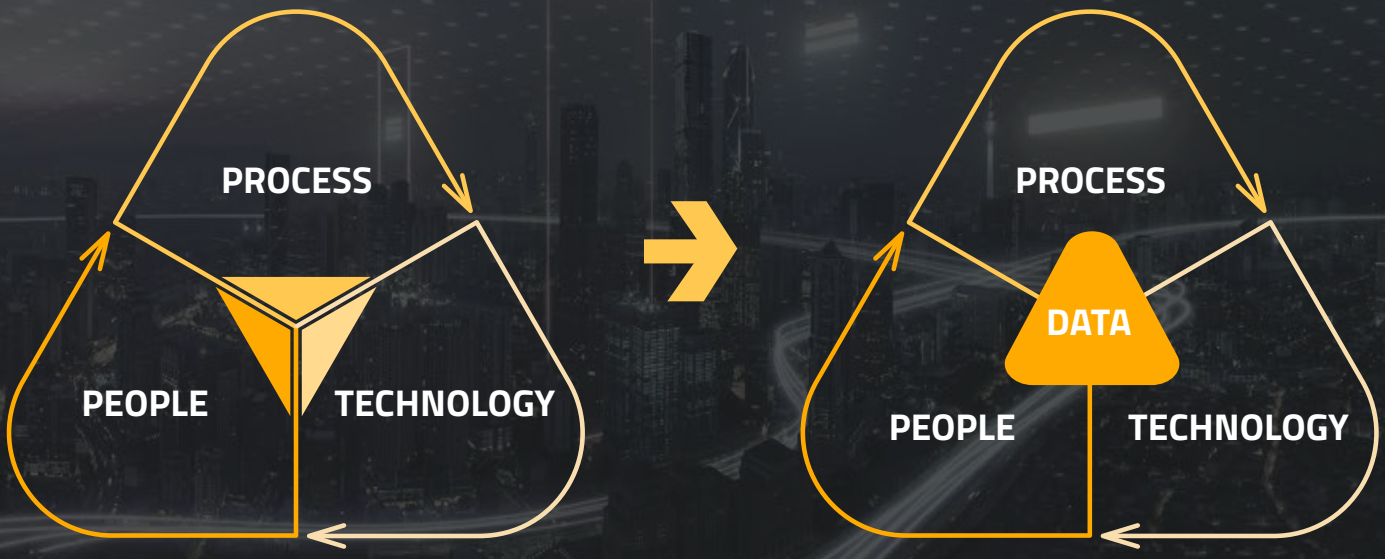
THE EVOLUTION OF DATA – FROM BI TO ANALYTICS

Data is a precious commodity, the oil of the digital era. However, until recently, enterprises would only collect data and report it. Though the process was limited to data assembly, collation and visualization, it was referred to as business intelligence (BI). The reported data was then given to humans who were responsible for making sense of the information. Fortunately, technological innovation has led to an advancement in this process and the value of data too has grown tremendously. Today, the raw data that is collected is analyzed and made sense of in an automated manner through the use of algorithms—deep learning, artificial intelligence (AI) and more. The analyzed outcome is then presented to consumers of the data to facilitate decision-making. Hence, building a data-driven culture in an organization has become a lot simpler.

SO, WHAT DOES IT MEAN TO BE DATA-DRIVEN?

It is important for enterprises to be able to understand, process, and analyze information to derive actionable insights. Organizations that leverage data and analytical insights to predict outcomes and make informed decisions are known as data-driven organizations. Strategic, tactical, and operational decisions across all levels in these enterprises are influenced by the interpretation of numbers and facts.

Data as the New Core Capability of Digital Buisiness



A Gartner study highlights that over 50% of companies have already invested in big data, and more than 70% of those are looking to reinvest. Big data analytics plays a significant role in data-driven organizations. There are Chief Data Officers (CDOs), data scientists and people in similar roles to continuously examine large, structured as well as unstructured, granular data sets to discover otherwise-unknown patterns,
connections, trends, user preferences, and powerful business insights.

SHOULD YOU TRANSFORM YOUR ENTERPRISE TO BECOME DATA-DRIVEN?

The answer is a definite "yes". Considering the quantity of data that is available, it is important to note that the presence of information means nothing if an organization is unable to derive value from that data. It is crucial to tap into the unexplored data
residing in disparate sources and leverage it for making informed decisions. Moreover, today, there are algorithms that take care of data interpretation with zero human intervention.

Data analysis can enable leaders to understand trends, challenges and opportunities, giving them a competitive edge by making the right decisions at the right time. Also, a decision-making process backed by data is more consistent and less dependent on an individual's opinions, thus causing minimal impact on business during employee
transition or attrition.

A McKinsey survey highlighted that the impact of customer analytics on corporate performance is significant, yet clearly underestimated. Enterprises that used customer analytics extensively were more likely to outperform their competitors on key
performance metrics, such as profit, sales, sales growth, and returns on investment.

DATA ANALYTICS OUTCOMES ARE REAL

The power of data analytics is for everyone to enjoy, irrespective of the industry, company size, or revenue. Real companies are unleashing the potential of data analytics in their real-world operations to fuel business growth and enhance customer experience. Everyone is familiar with the e-commerce boom and logistics service providers that have tapped into big data to optimize operations have been able to keep pace with the surging demand for quicker delivery—by moving fleet to areas with higher anticipated demand, optimizing delivery routes, etc.

Technology has been enabling cafes, snack bars, eateries as well as food delivery apps to make personalized eating recommendations that are based not only on a customer's past orders but also on the time of day/week, season/weather and other realistic factors. Inventory management teams using predictive real-time analytics are able to cut down costs and save time on repairs by predicting repairs and failure, ensuring the availability of the right products and parts at the right location, etc. These are just a few examples. Understand, the possibility of weaving success stories by smartly navigating through data is real!

WHY ARE ENTERPRISES UNABLE TO MAKE DATA-DRIVEN DECISIONS?

Better use of data can enable a company to define problematic issues, find solutions to those issues, and have greater control and visibility into the business. However, most organizations fail to utilize almost 90% of the data that is available to them, the reason being, most of the available data is in silos, and more often than not, the organization doesn't have the right tools to process and analyze the large number of data sets. A study by New Vantage Partners showed how companies were failing to become data-driven. Respondents who stated they had "founded a data-driven company" decreased from 32.4% in 2018 and 37.1% in 2017 to 31% in 2019. Instead of a progressive digital change, there is a frustrating digital stagnation.

Considering the huge amount of data generated every second, there are organizations out there trying to grapple with quintillions of bytes of data every day, looking for an information management strategy to accelerate the flow of insights. They need to realize that doing so will only complicate their big data solutions, increasing implementation and maintenance costs. A data-driven organization is not necessarily one that uses every tiny bit of data coming in from every source, but one that makes smart decisions with an aim of accelerating business growth.

HOW CAN A CHIEF DATA OFFICER IMBIBE A DATA-DRIVEN CULTURE ACROSS THE ENTERPRISE?

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LEAD BY EXAMPLE

An organization's leaders play a prominent role in driving digital transformation and instilling a data-driven culture. Though describing how to insert data into the decision-making process is fairly straightforward, the thought of making this natural or even automatic with the help of AI and deep learning algorithms can be daunting. It requires a change in mindset and attitude. Leadership teams need to lead by example—developing the right mindset, improving the skillset, enhancing the quality of data, investing in data protection, etc.

DATA LITERACY

Building awareness plays an important role here. Teams should be equipped with the right tools and should be in a position to read, analyze, and make inferences and decisions based on available data-sets. Hands-on training can help in the awareness-building process. Despite the constantly changing dynamics, employees should be able to grasp and act based on the latest data analysis trends.

ENCOURAGE AND REWARD DATA-DRIVEN BEHAVIOR

A change of this scale requires cultivating the right skill sets and mindset. The transition journey toward a data-driven enterprise can be smoother and more effective when top-level decision makers motivate and stand by their teams, enabling them to overcome failures and hurdles. Leaders that incentivize the program would be able to see a positive change sooner.

THERE'S A LOT OF "DARK DATA" – UNUSED YET CRITICAL

60% of the respondents who participated in a survey by Splunk admitted to over 50% of their organizations' data being dark, and one-third of the participants put that figure at over 75%.

Gartner defines dark data as the information assets that organizations collect, process and store during regular business activities, but generally fail to use for other purposes such as analytics, business relationships and direct monetizing. These digital assets include e-mails, documents, Excel files, PowerPoint presentations, system activity log files, and a lot more. More often than not, this data is stored only for legal compliance purposes.

On one hand, enterprises could be missing out on valuable business intelligence hidden within the inaccessible files, and on the other, storing and safeguarding this dark data can cost enterprises dearly—both, in terms of expense and cybersecurity risk. Robust data governance is a must to ensure data containing personally identifiable information (PII), protected health information (PHI), and other sensitive information is properly secured.

With the General Data Protection Regulation (GDPR), California Consumer Privacy Act (CCPA), and several other data privacy regulations in effect, it is high time enterprises invested in strong data governance solutions to handle their information assets, including dark data.

THE ROLE OF BIG DATA

The outburst of data from multiple sources requires a powerful solution that enables enterprises to gather, understand and process information to derive actionable insights. That is why big data solutions have been grabbing the spotlight over the last few years. However, quite a few companies are still struggling to understand its significance and benefits. By conceptualizing and deploying an appropriate big data plan tailored to the enterprise's domain and focus area, leaders will be able to enhance their teams' capabilities to drive their organization's vision and values.

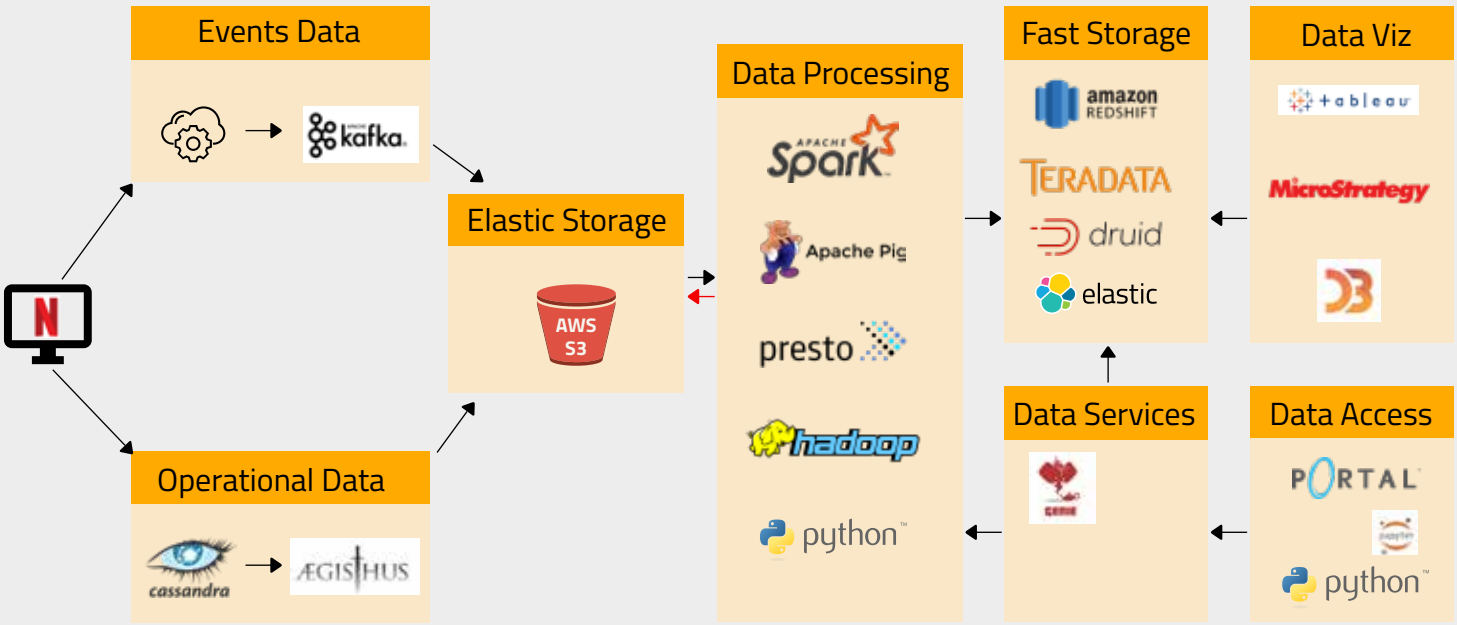
The right big data solution will empower teams by helping them:

Recognize unique business-specific methods to gather and analyze data	Derive meaning out of siloed data sets and discover valuable insights	Set up and institutionalize a centralized data analysis solution across all functions in the organization
Predict and mitigate data security risks ahead of time	Gather just the right customer insights leading to newer revenue sources and increased profitability through cross/up-selling	

Associating with a competent big data solutions provider can power up the digital transformation journey. From developing the strategy roadmap and proof of concept to offering platform customization and implementation services, the partner should be there to assist at every step:

Data collection	Data access management	Data quality analysis
Interactive metrics and dashboard generation	Data storytelling	Solution testing
Strengthening privacy and security		

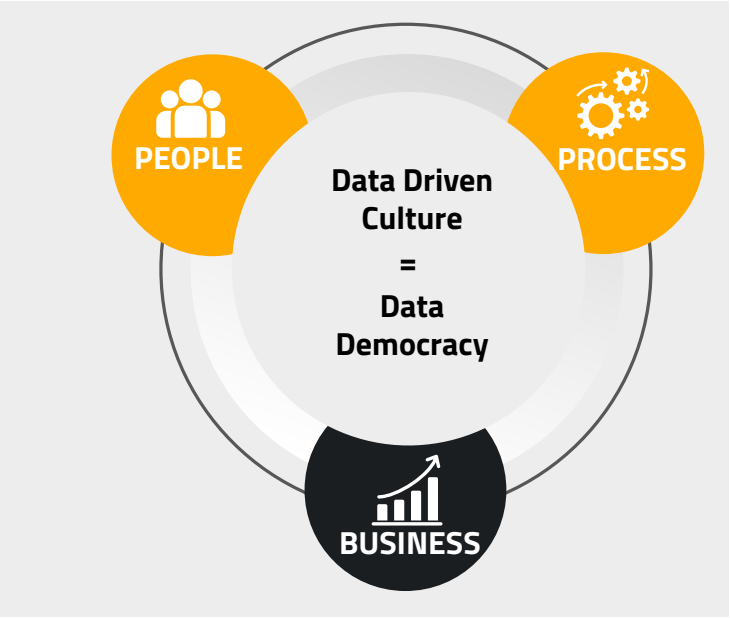
The right big data technology partner will be able to introduce innovative solutions for data visualization and business intelligence & analytics to cater to the data consumption needs of modern enterprises. A winning partnership will explore the complete potential of data using business intelligence systems, artificial intelligence, machine learning, deep learning, and robotic process automation, coupled with the most appropriate tools and technologies:



Ease of access to data and analytical insights is equally important, and data democratization can help achieve this.

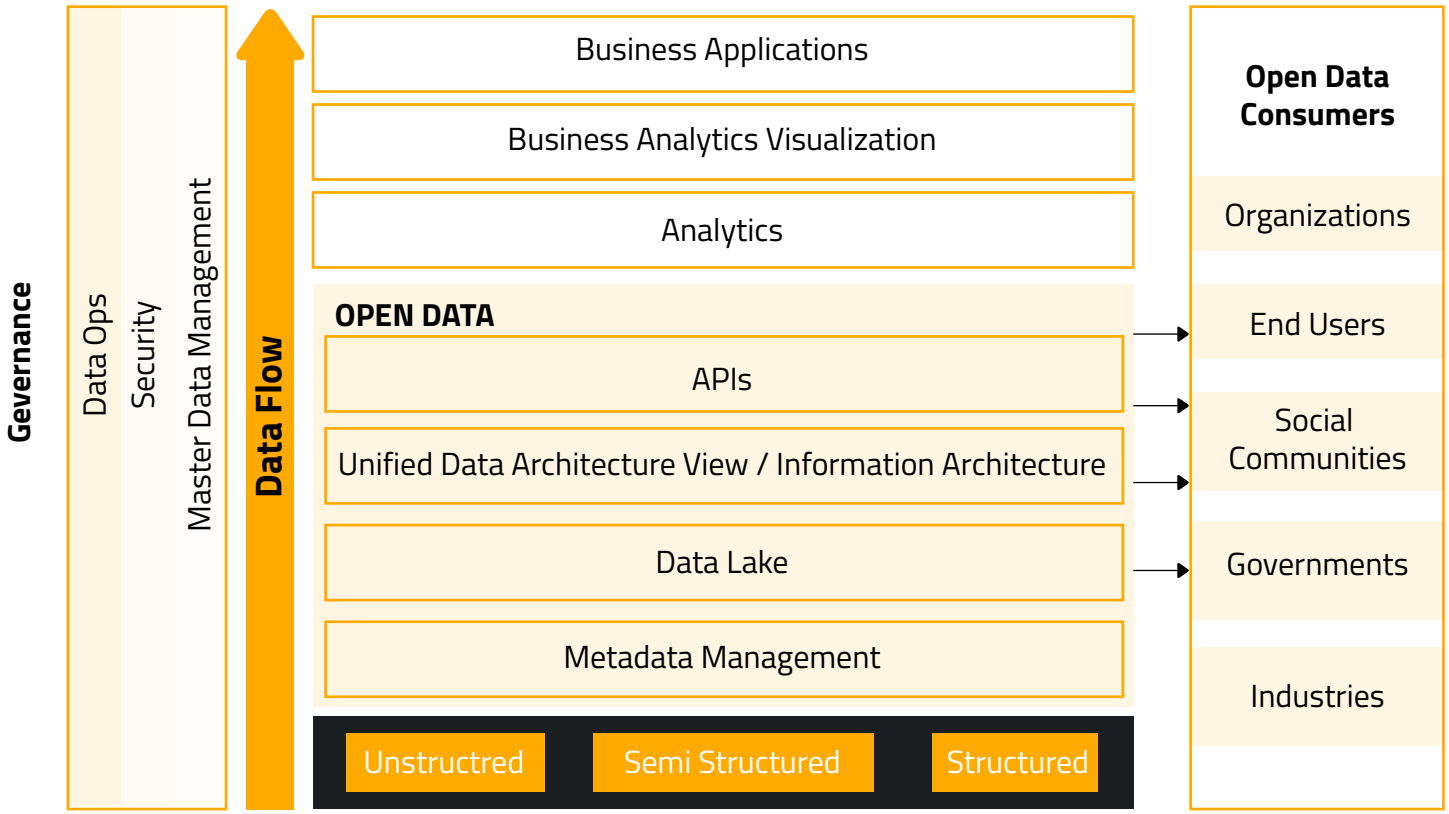
DATA AND ANALYTICS DEMOCRATIZATION

Gone are the days when the IT team was the sole owner of an organization's data. Enterprises are now going the data democratization path—one where everyone has access to information without gatekeepers that withhold information. However, it is not only about granting access to information, but also about simplifying it by offering an easy way for people to understand the data. Data and analytics democratization helps accelerate the decision-making process by enabling individuals to take action on critical business insights without hurdles to access or understanding.



Nevertheless, few organizations are skeptical about data misinterpretation by non-technical employees resulting in poor decision-making, and in such cases, data virtualization software solutions and self-service business intelligence applications can come in handy. They save and manipulate information, helping non-technical employees make sense of data. Again, any enterprise that democratizes its data has to implement strong data governance practices to ensure data is carefully managed.

Reference view of how data democratization can be achieved:



Access the Chief Data Officer's guide to data democratization here.

THE JOURNEY TOWARD BECOMING A DATA-DRIVEN ORGANIZATION TURNING OUT TO BE A HURDLE RACE?

Promoting an open-minded growth mindset is the first step toward digital transformation. However, there could be obstacles on the way due to various other factors.

LACK OF THE RIGHT SKILLS

Employees with data literacy and data fluency capability are crucial. These employees can help the organization easily turn huge piles of Big Data into actionable insights by interpreting it in the right manner. Alternatively, organizations can obtain consulting, support, and training services from experienced analytical business service providers right from the early stages of implementation, and at the same time, look toward building in-house expertise.

OUTDATED TECHNOLOGY

Having a competent team alone is not enough if employees are not well-equipped to deal with the challenges of big data, an outdated data warehouse model, and laborious data integrations. Data analysis and evaluation in the real world needs support from the right technology in addition to advanced technical, statistical, and analytical acumen.
Organizations should invest in advanced analytics tools and technologies that are flexible and scalable in order to extract maximum benefit from data. They should possess the ability to handle the exponential growth in data volume and velocity.

THE HIGH COST OF DATA MANAGEMENT

As mentioned earlier, enterprises collect and store large amounts of data, including dark data. The constant storage, securing, and backup of historical data can have an impact on IT budgets and resources and pose threats such as data breaches. Firms are also reluctant to invest millions in data warehousing.

DATA SILOS

There is an abundance of information, lack of data integration, and departments that are focusing only on their own metrics, KPIs and data sources. A lot of raw data is restricted to specific departments, isolated from the rest of the organization. This results in a lack of transparency, productivity, and trust within the enterprise. Such data silos can kill the organization's business analytics efforts by offering an incomplete view of the business and threatening the accuracy of data. Opting for an end-to-end integration solution that unifies data and promoting a culture of collaboration within the enterprise can help.

Happiest Minds' digital platforms, including the Mindful Thinking framework empower enterprises with the right decision-making capabilities to hyper-accelerate value creation. By leveraging emerging technologies such as augmented intelligence, robotic process automation (RPA), big data analytics, the Internet of Things (IoT), and augmented reality, the framework enables companies to become customer-centric, frugal and insight-driven. It helps conceptualize decisions, visualize, and prototype solutions that an organization wants to build. The approach not only delivers analytical insights with speed but also places users—every individual customer—at the center of everything. In short, the journey from business intelligence to data analytics will be worthwhile.

CHANGE MANAGEMENT

Once the organizational assessment report is ready—after analyzing the drivers, risks and impact of the transition on the enterprise—check the preparedness of the organization as a whole as well as the readiness of every entity within the enterprise for the transformation. Execute change management via the following steps:

CHANGE MANAGEMENT ROADMAP

Develop a change management roadmap and a comprehensive change program customized to employee roles, teams, or processes, as appropriate. Personalization helps make the transition smoother and training sessions more effective.

BUILD AWARENESS

Create awareness through communication campaigns, storytelling, virtual and classroom training courses, and learning journeys. Active involvement and motivation from the organization's leaders is a key success factor.

PROMOTE A DATA-DRIVEN CULTURE

The onus of achieving a data-driven culture across the organization should not lie on the senior management alone, but on all employees across all levels in the enterprise. Cultural reinforcement is possible by applying what's learned in daily practices and by constant improvement through a continuous feedback loop.

TRANSITION MONITORING

Track and control the transition toward a data-driven enterprise with data. Leverage the power of business intelligence, Big Data, and analytics to monitor the progress of teams and the organization at large. Use derived insights to streamline processes and achieve greater success.

CONCLUSION: PREPARING FOR THE UNEXPECTED

Gone are the days when data was committed to investigating what activities were being performed and why they were being executed. Historic data is becoming history. Today, digital users know what's already being done, and they are eager to know "what will be done in the near future". To win in this scenario, enterprises need to be equipped with real-time predictive analytics capabilities. They need to be able to connect to the subconscious minds of potential customers and influence their purchase decisions, steering them toward what they will buy. That's where AI algorithms play the masterstroke.

The pandemic has taught the world to expect the unexpected and be fully prepared for it. The pace of change in recent times has highlighted the importance of rapid decision-making, and the situation has completely altered the way of working. People are not going back to their offices anytime soon, brick and mortar stores are vanishing, and virtual is the new normal. Salutations during business and customer meetings have transitioned from handshakes to digital handwaves. As these boundaries between the physical and digital world merge, the remote work environment makes it imperative for enterprises to heavily rely on automated systems and on data that is available. With water cooler discussions out of the picture, leaders will essentially need to get analytics back to make decisions. This is the new phase of data.

What will the agile data organization look like? McKinsey lists the five trademarks of agile organizations as: North Star embodied across the organization, a network of empowered teams, rapid decision and learning cycles, dynamic people model that ignites passion, and next-generation enabling technology. Data-driven human transformation, stronger decision-making capability, and richer user experiences will be clearly visible outcomes of the transition while showing an obvious improvement in the organization's strategic objectives.

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