

VERSION NEXT

NOW

TEKSYSTEMS DATA INTELLIGENCE ISSUE | SPRING 2022

MIND AND THE MACHINE: THE AGE OF DECISION INTELLIGENCE

Taking Intelligent Action on Your Data

Decisions, Driven by Context

How many decisions did you make today? What to wear, what to eat, what to tackle first when you logged in to your email or your project management tool—these are choices you make so often they've become almost subconscious. But if you stop to think about it, it's almost never that simple. There are a thousand different surrounding pressures and influences and mitigating factors that can sway you one way or the other. Sometimes it is about personal preference. If you hate tomatoes, you likely won't want to order lasagna for lunch. If you have bills due or payday isn't imminent, perhaps you'll skip that exorbitant lunch in favor of leftovers. If you didn't get to the growing laundry pile over the weekend, you likely won't be throwing on that favorite pair of jeans that you wore on repeat last week (or maybe you will—I won't judge!). What I'm getting at here is something along the lines of institutional knowledge and context. All the little details that must be considered, consciously or subconsciously, before you can make a sound decision (or decide to take a risk based on the likelihood of success).

Now, think about scaling that to an enterprise level. How many decisions does your company have to make daily? What pressures and factors are influencing those? Pretty mind-blowing to think about, isn't it? It's why so many organizations are increasingly offloading decision-making responsibilities to automation and artificial intelligence tools with the ability to take in massive amounts of information and data, process it, assess risk versus reward and decide on the best course of action. Newer iterations of these technologies, called decision intelligence, can also take into account that most human of factors: context. It's a game-changer for the entire industry, and if your business hasn't explored it yet, well, perhaps that's the next decision you should make.



Sharon Florentine
Contributing Editor



1 0
0 1 0
0 1 0 1
0 1 0
1 0

THE CHANGE AGENT

AI and machine-learning technologies are transforming business intelligence platforms into powerful tools that optimize the decision-making process, create agility and drive the business forward.

PAGE 7 >>>

1 0
0 1 0
0 0 1
0 1 0
1 0

MARKET PERSPECTIVE

Microsoft discussed the importance of building a business powered by data in a recent [white paper](#), and we explore some of those insights here.

PAGE 13 >>>

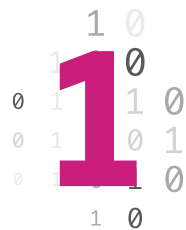
1 0
0 1 0
0 1 0 1
0 1 0
1 0

TEKSYSTEMS' PERSPECTIVE

TEKsystems leaders Devang Pandya and Ramesh Vishwanathan share their perspective on how the application of decision intelligence creates opportunities to transform the business with data.

PAGE 19 >>>





Understanding Decision Intelligence

It's estimated that the average adult makes more than 35,000 decisions per day.

That may sound absurd, but according to a Cornell University study, we make nearly 230 decisions each day on food alone. When you factor in all of the subconscious decisions about what to eat, what to wear or what to watch on TV, those decisions quickly add up. That doesn't even consider the cause and effect of those decisions that splinter into hundreds of microdecisions. The bottom line is that we are faced with a massive number of decision points every day.

For executive leaders, the number of decisions is likely higher, as they make decisions that shape company strategy, culture and vision. When do they pivot the business in response to disruption? How do they activate their [digital transformation strategy](#)? Often, those decisions must be made quickly, all while considering numerous potential outcomes and balancing risk with opportunity. But what are the components of such a decision? Peter Drucker said, "effective executives know that decision making has its own systemic process and its own clearly defined elements." In a [Harvard Business Review](#) article, Drucker defined six steps in the decision-making process including:

- 1 Classifying the problem
- 2 Defining the problem
- 3 Specifying the answer to the problem
- 4 Deciding what is "right," rather than what is acceptable, in order to meet the boundary conditions
- 5 Building into the decision the action to carry it out
- 6 Testing the validity and effectiveness of the decision against the actual course of events



SECTION 01

SECTION 01 | THE CHANGE AGENT

By 2023, more than a third of large **organizations will have analysts practicing decision intelligence.**¹

Drucker's process has stood the test of time and is as relevant today as it was in 1967 when he penned the article. The only thing missing from his framework is data. That's understandable since Drucker penned those steps before technologies such as artificial intelligence and data analytics were as pervasive as they are today. What does that mean for executive decision-makers today?

For years, organizations have leveraged business intelligence dashboards to help users make data-driven decisions. Unfortunately, often the analytics platforms are chosen to fit the data rather than leading with what the company is trying to solve for. Even with those tools, the user is left to interpret the data and draw their own conclusions. The sheer volume of data and lack of context provided can lead to poor decisions and less than ideal outcomes. That's where decision intelligence comes in.

Decision intelligence is a subset of [artificial intelligence](#) that focuses on tangible business outcomes, combining human and machine inputs to arrive at the most desirable conclusions. By incorporating AI and machine-learning technologies, organizations are transforming their business intelligence platforms into powerful tools that optimize the decision-making process, create agility and drive the business forward.

54%

*of organizations have fully adopted AI and machine learning tools.*²



SECTION 02



MARKET PERSPECTIVE

Microsoft discussed the importance of building a business powered by data in a recent [white paper](#), and we explore some of those insights here.



2

Harnessing the Power of Data



What are some of the benefits of a data and analytics strategy?



Microsoft: Data and analytics technologies are some of the most powerful tools available to organizations. They can transform a company's decision-making capabilities and create entirely new business models, improve the customer experience and drive revenue growth. Improving employee experiences by reducing repetitive tasks and increasing clarity of purpose are just some of the benefits that organizations can realize from a powerful data strategy. It also drives positive change for customers by improving their interactions with your business. Organizations must elaborate a data strategy and fundamentally rethink the way they operate and deliver services.



How does Microsoft help support a company's data strategy?



Microsoft: We help organizations to create and nourish a good data culture that helps its workforce to be smart, efficient and compliant with regulations. To create a culture in which data is securely and productively shared usually means transforming an organization's existing operating model and use of data.



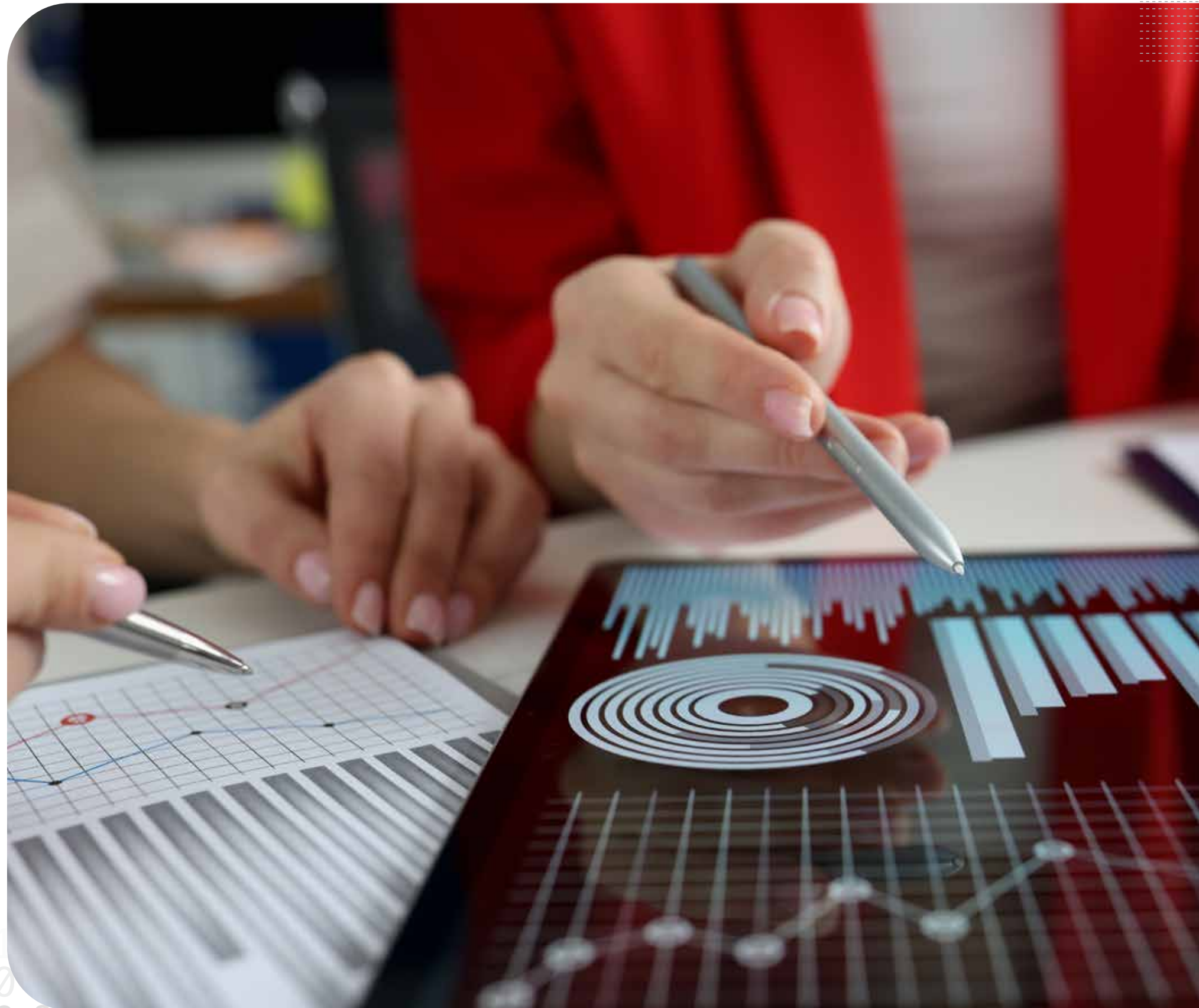
What recommendation do you have for organizations as they attempt to harness the power of data?



Microsoft: Many companies are still coming to terms with cloud adoption and its positive, if radical, impact on their business models. But as Microsoft CEO Satya Nadella explained in 2018, “tech intensity” is a disruptive, forward-propelling force that doesn’t stand still. AI and machine-learning technologies are facilitating the ability to continuously innovate and disrupt business models, enabling businesses to stay ahead of competitors. Organizations that fail to rapidly adapt and automate business processes risk relying on going to data teams for every insight or question.

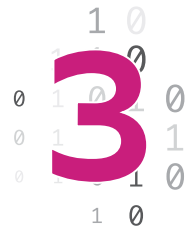
Effective digital transformation requires us to do away with data silos, instead freeing up information to enable new innovations. We are already seeing AI and ML opening up a new world of insights, smart services and automated workflows. Organizations that embrace continuous change as a business opportunity can build rapid growth through these technologies. They can pool expertise, for example, and form technology partnerships based on shared and open data platforms to deliver previously unimagined results.

Click here to read the complete [white paper](#).



OUR PERSPECTIVE

TEKsystems leaders Devang Pandya and Ramesh Vishwanathan share their perspective on how the application of decision intelligence creates opportunities to transform the business with data.

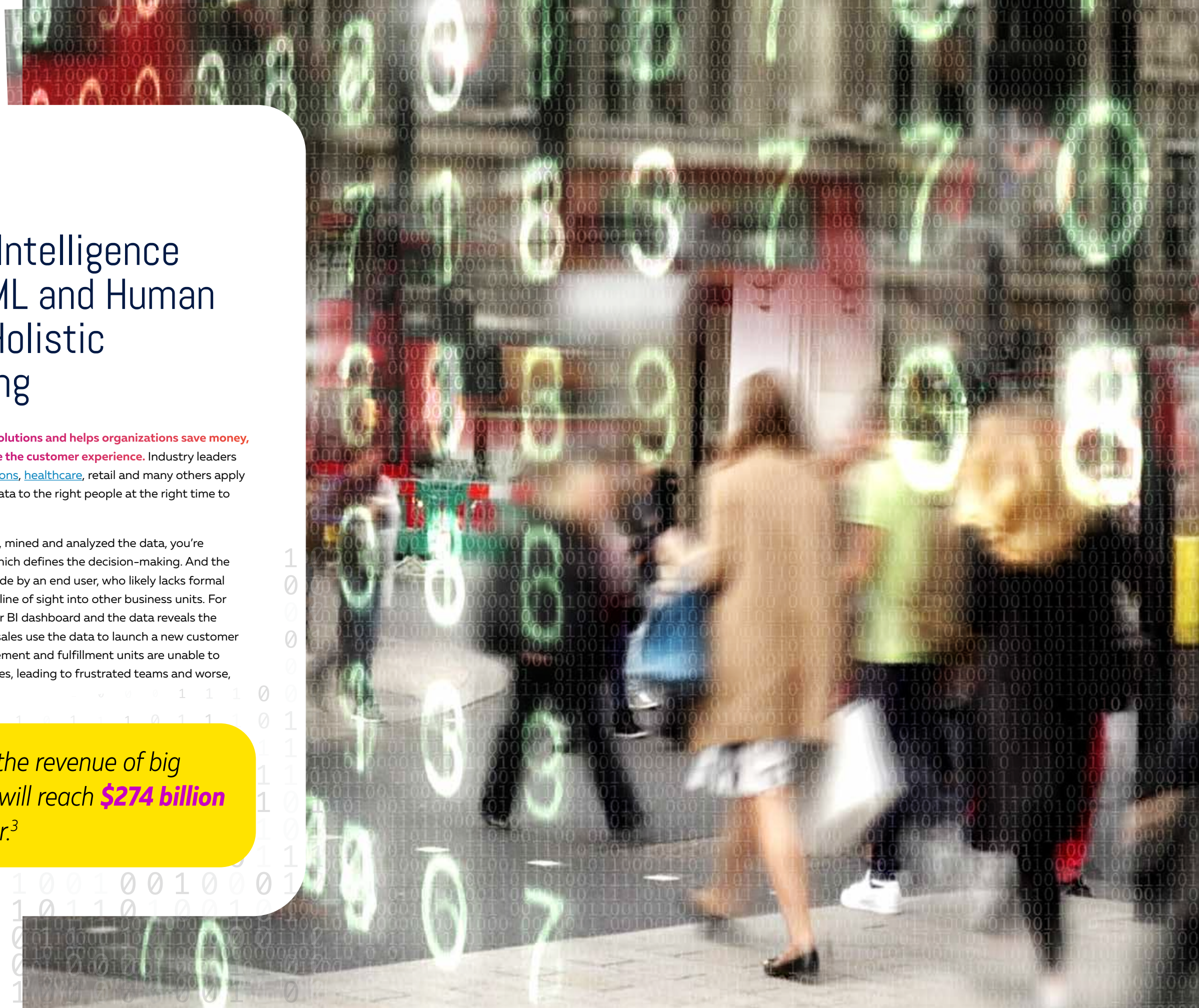


How Decision Intelligence Combines AI, ML and Human Elements for Holistic Decision-Making

Data powers and informs future-facing solutions and helps organizations save money, increase revenue, reduce risk and improve the customer experience. Industry leaders across [financial services](#), [telecommunications](#), [healthcare](#), retail and many others apply data analytics solutions to get the right data to the right people at the right time to make informed decisions.

The problem is that once you've collected, mined and analyzed the data, you're tethered to that rearview data process, which defines the decision-making. And the outcomes are predicated on decisions made by an end user, who likely lacks formal training in data analysis and has a limited line of sight into other business units. For example, the marketing team fires up their BI dashboard and the data reveals the best performing content. Marketing and sales use the data to launch a new customer engagement campaign. But if the procurement and fulfillment units are unable to fill customer orders, the campaign backfires, leading to frustrated teams and worse, unsatisfied customers.

*IDC estimates that the revenue of big data and analytics will reach **\$274 billion worldwide** this year.³*



SECTION 03



SECTION 03 | OUR PERSPECTIVE

The previous decade **saw growth of almost 5,000%** in the amount of data created, captured, copied and consumed in the world.⁴

Decision intelligence generates a holistic view of the business, removing the need to validate information or track down different stakeholders before making a decision. Through the decision intelligence mechanism, underpinned by AI, you can now look forward, backward and sideways. Every potential action is considered within the context of the expected outcomes, augmenting the human elements to help make faster, more accurate decisions. The AI models augment the decision-making process, putting the power of AI into the hands of the business users.

That all sounds great, so why isn't that every company's reality? Ten or 15 years ago, organizations were bound by the limitations of the technology. Business intelligence tools were implemented with the promise of delivering fresh insights that could solve every business problem. Often the technology failed to live up to the potential and users struggled to take action based on the data. Today, technology is no longer a hindrance. You're bound only by your agility and your commitment to transforming the enterprise. Data and information is combined with cloud platforms, AI and machine learning to enable [citizen data scientists](#) across the enterprise to make decisions.

Take, for instance, the [supply chain](#), which as everyone knows is a massive challenge. The power of decision intelligence provides real-time insights into your supply chain ecosystem. Front-line decision-makers can assess the situation and redirect supply chain requirements to different routes, vendors or partners. The business users are equipped to confidently make the right decisions and minimize negative impacts.

Faster decision-making, increased agility and cost savings are some of the ways organizations can leverage decision intelligence, but they're also looking for ways to monetize their data. To fully monetize the data, there must be some level of data sharing or data exchange taking place. This is where the cloud poses a risk in terms of compliance. The cloud is one of the most secure ways to protect your data, but it's how you're storing data in the cloud that creates an element of data security risk. With the pressure to comply with privacy regulations, organizations are turning to the concept of [data clean rooms](#). Data clean rooms allow for the secure sharing and exchange of sensitive user data.

"The feedback loop is built into the decision intelligence framework. Your decisions are based on the measures you've put in place. You're able to monitor them to see if it's going in the right direction and then quickly course-correct as needed."



Ramesh Vishwanathan
Senior Practice Director
TEKsystems



SECTION 03

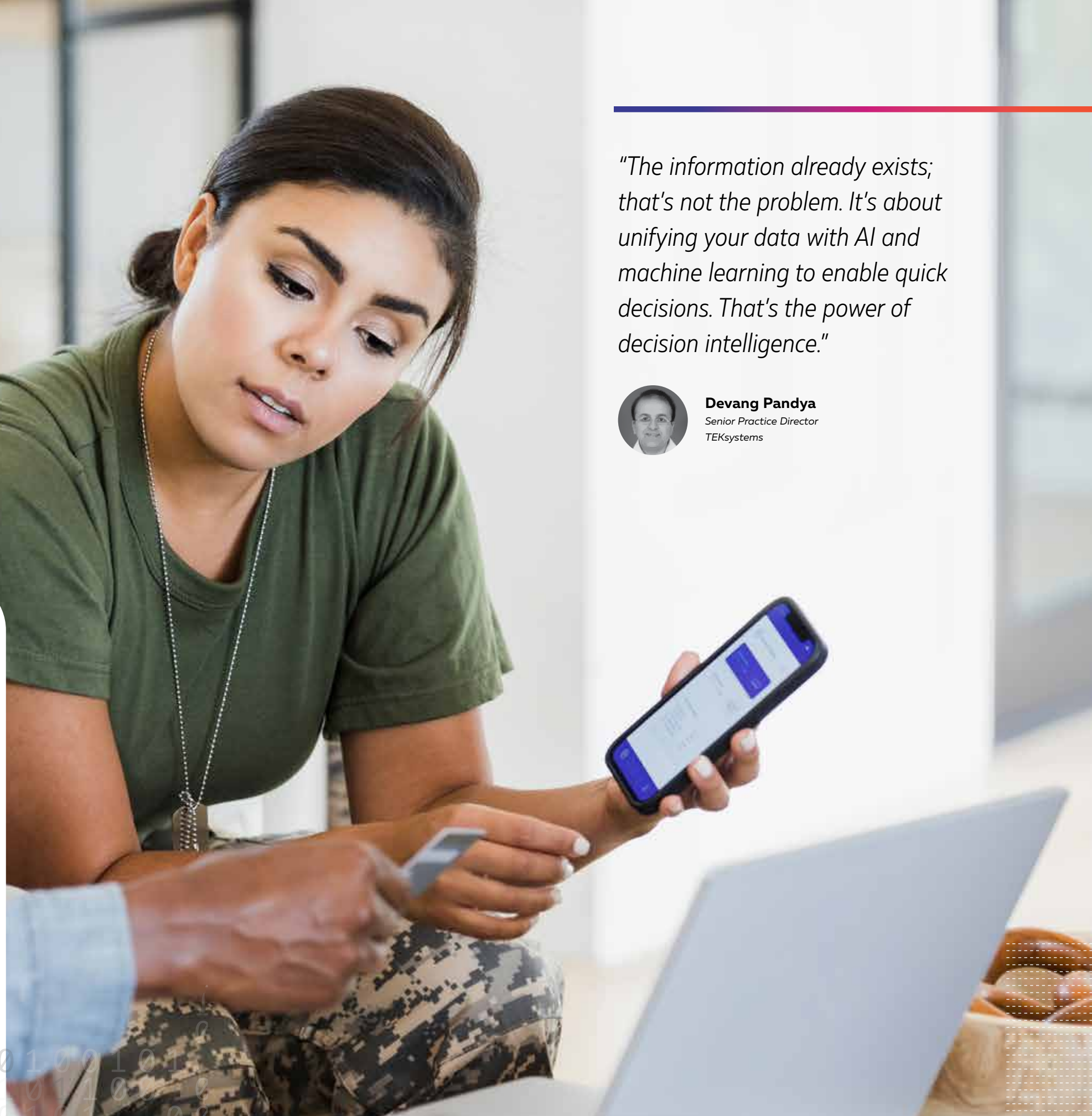
For example, when consumers accumulate credit card points, they can exchange those points for different products or services. A loyalty points provider platform enables the consumer to use their points for a statement credit, hotel stays or gift cards from their favorite brands and everything in between. Even if the credit card company masks or anonymizes the customers' personal data, there is still a risk that bad actors could seize the data and tie it back to the consumer. A data clean room provides a place to aggregate customer data from different sources and platforms. Then multiple partner-companies can analyze the data under tightly defined guidelines and restrictions that keep the data secure.

The application of decision intelligence creates opportunities to transform the business with data. Future-forward organizations unify their data with AI and machine learning. Users are equipped to quickly make action-oriented decisions that enable the organization to thrive. That's the power of decision intelligence.

"The information already exists; that's not the problem. It's about unifying your data with AI and machine learning to enable quick decisions. That's the power of decision intelligence."



Devang Pandya
Senior Practice Director
TEKsystems



TEKsystems' Tips



Think beyond just technology:

Decision intelligence is much bigger than a single discipline. To maximize its effectiveness, the technology must integrate multiple disciplines across data science, psychology, social science, economics and more to lead your organization to the outcomes you want and avoid those you don't.



Align the right stakeholders:

Communication and transparency are critical tenets of successful AI outcomes. Think through who should be involved and ensure every applicable function of the business is represented.



Unify the technology stack:

The AI models that fuel decision intelligence require frictionless communication so you can seamlessly receive feedback on the data and quickly fine-tune the models.



Use a building block approach:

Focus on incremental wins quickly and then build upon them. It's ok if it's not perfect. During the iteration process, you'll fine-tune and evolve the processes and in the end create robust decision-making across the organization.



Be the employer of choice:

Top-level talent seeks opportunities to innovate across technology stacks and solve complex business problems. Implementing cutting-edge technologies like decision intelligence can help you attract the right talent.



Build a thoughtful decision model:

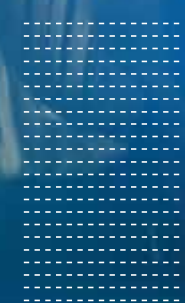
Evaluate what you're doing. Take the time to examine the steps of your decision-making. Then integrate those steps into your process. Finally, integrate the technology to activate the entire decision-making life cycle.

Real-World Application: Morgan Stanley

In the financial services sector, artificial intelligence and machine learning technologies are transforming everything from credit decisions to loan underwriting to financial risk management. The management of assets and investments is well suited for decision intelligence technology. With a holistic view of a customer's portfolio, financial firms can use AI and ML tools to run sophisticated scenario analysis to help clients find the best investment opportunities.

Morgan Stanley's [WealthDesk](#) enables its financial advisers to have an integrated view of assorted portfolios so they can manage their client relationships more effectively. WealthDesk provides financial advisers with a single dashboard for all their financial planning, advice and implementation tasks. The platform uses decision intelligence to recommend the most favorable investment strategies for their customers. The platform allows Morgan Stanley's financial advisers to see the likely impact of portfolio changes on a client's investments before a decision is made. The advisers review and verify the recommendations from the platform before advising the customer.

All information shared herein was accessed from public sources as indicated.



TEKsystems Data Analytics Portfolio

- Delivering expertise in modern cloud analytics, data modernization service, AI and machine learning, master data management, data governance and quality, real-time analytics and IoT across 300+ customers, including 20% of the Fortune 100
- 2,000+ data analytics engagements completed
- 2K+ global data analytics workforce
- Proprietary tools to accelerate timelines and deliver results covering 55+ accelerators across AI, conversational platform, data engineering, data visualization and cloud analytics
- As a [Microsoft Gold-Certified Partner](#), we bring qualified expertise and deep experience to help you maximize ROI and achieve real value. From discovery and design to adoption and improvement—we'll tailor our solutions to meet your needs and help you stay ahead of what's next.
- 1Strategy, a TEKsystems Global Services company, is an [AWS Premier Consulting Partner](#) offering consulting services focused exclusively on AWS solutions. 1Strategy is a Machine Learning Consulting Partner and has earned multiple AWS competencies, including DevOps, Migration, Data & Analytics and Security.
- Leveraging our Machine Learning Partner Specialization in the [Google Cloud Partner Specialization Program](#), we'll help your data insights come into focus, unlocking smarter innovation and digital transformation.
- As a [Snowflake Elite Partner](#), we have the proven skills and experience to help you leverage Snowflake's innovative technology and achieve data-driven results.
- As a [Tableau Premier Partner](#), you'll benefit from our 30+ data and analytics accelerators and a library of BI platform capabilities, processes and proven frameworks that are agile, repeatable and scalable across a Tableau environment.

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect the views of TEKsystems, Inc. or its related entities.

Meet Our Contributors



Devang Pandey

Senior Practice Director, TEKsystems

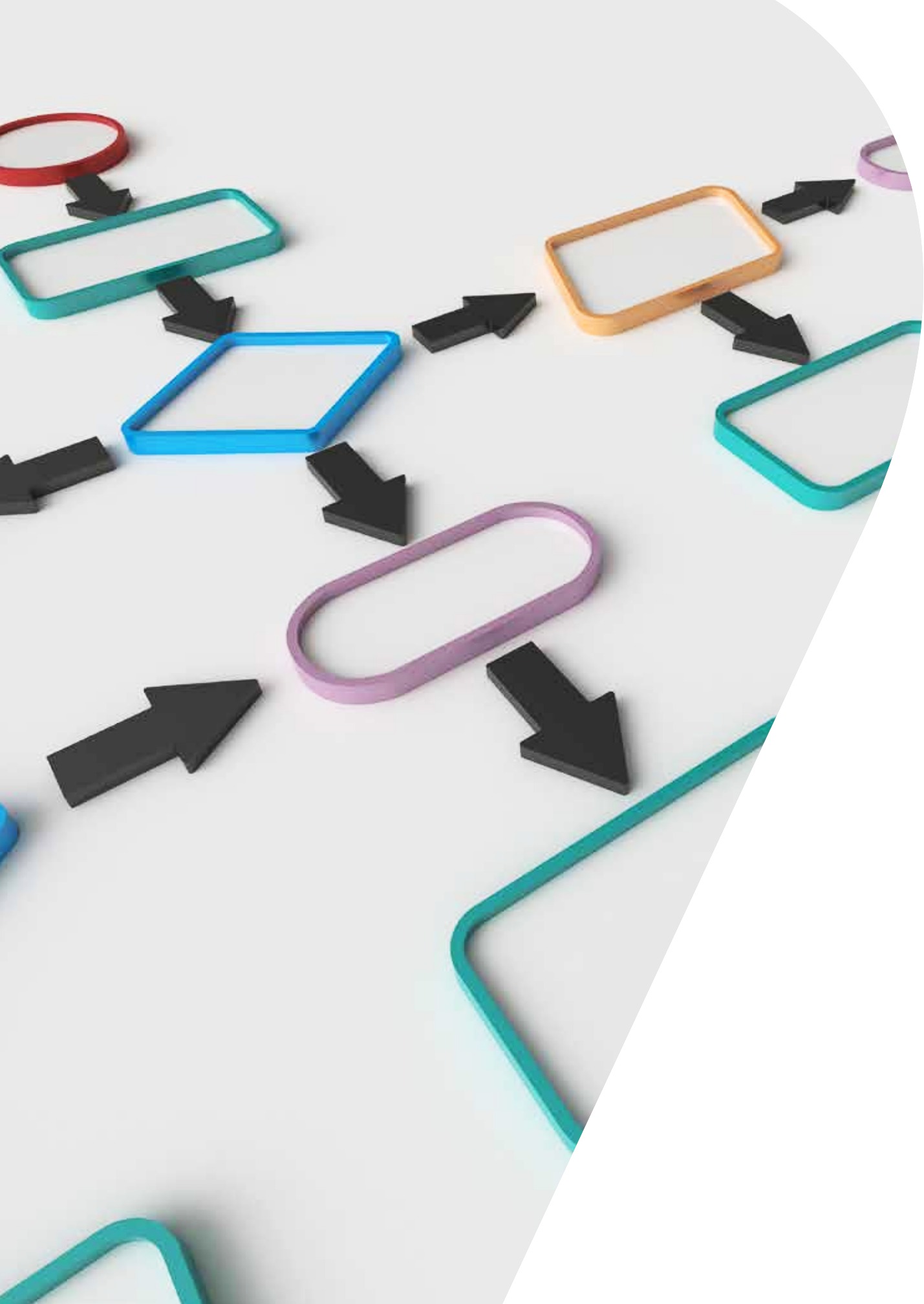
Devang is a senior practice director for TEKsystems Global Services and is responsible for the global delivery of data analytics and insights.



Ramesh Vishwanathan

Senior Practice Director, TEKsystems

Ramesh is a data insights leader, innovator and AI evangelist. He leads TEKsystems' data insights practice, focusing on cloud, big data and AI strategy. He is an expert at helping customers adopt and mature AI and helps lead them to data-driven automation and intelligence-driven business processes.



About TEKsystems®

We're TEKsystems. We accelerate business transformation for our customers. We bring real-world expertise to solve complex technology, business and talent challenges—across the globe. We're a team of 80,000 strong, working with over 6,000 customers, including 80% of the Fortune 500 across North America, Europe and Asia, who partner with us for our scale, full-stack capabilities and speed. We're strategic thinkers, hands-on collaborators, helping customers capitalize on change. We're building tomorrow by delivering business outcomes and driving positive impacts in our global communities. TEKsystems is an Allegis Group company.



Sharon Florentine, Contributing Editor

Sharon Florentine is the contributing editor for Version Next, Now, TEKsystems' quarterly publication. She is an award-winning independent writer and editor with more than 20 years of experience in the tech industry. Her work has appeared in Computerworld, PC Magazine, CRN and eWEEK, among others, and she is a passionate advocate for equity, diversity and inclusion in tech and beyond. Most recently, Sharon was a senior writer for CIO.com, where she covered software development, Agile, IT careers, learning and development, and DE&I. She lives near Philadelphia.



Listen Now

Don't miss Devang Pandya and Ramesh Vishwanathan on The Agile World podcast. In a three-part series, host, author and business expert, Greg Kihlström, sits down with Devang and Ramesh to discuss how decision intelligence can drive the business forward.



Be in the Know

Check out previous issues and know what's next [Version Next, Now](#)

Follow Us



Sources

1. [Top Strategic Trends for 2022](#), Gartner
2. [State of Digital Transformation](#), TEKsystems
3. [Worldwide Semiannual Big Data and Analytics Spending Guide](#), IDC
4. [54 Predictions About The State Of Data In 2021](#), Forbes

