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E-BOOK
Tech Trends to Watch in 2024

Contents

This e-book dives into the technology trends influencing today's business landscape. Learn what trends we're seeing, why they matter, and how you can capitalize on them now—and in the future.

The three biggest takeaways:

1. Technology is increasingly the foundation of trust with customers, partners, employees, and shareholders—and a key factor in how it can be lost.

2. As AI evolves, security and governance provide critical guardrails to test, learn, and innovate safely.

3. Humanity is, and will always be, an integral part of how businesses leverage technology and create lasting value.

We identify the business value behind each tech trend. At the end of each chapter, find these value creation levers to prioritize the most valuable trends for your organization:

- Improve market position
- Increase customer satisfaction
- Increase efficiency
- Increase employee satisfaction
- Increase revenue
- Realize faster results
- Reduce costs
- Reduce risk

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Executive Summary

Through extensive market research conducted by West Monroe's Market Intelligence function—analyzing hundreds of news articles, data sets, analyst reports, and conducting dozens of interviews with our top technology consultants—we identified five critical technology trends poised to redefine the business landscape in 2024 and beyond.

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Here are the emerging technology trends business and industry leaders should know in 2024:

1. The New Productivity Paradigm Enabled by AI and Generative AI

AI is changing how we work by boosting human capabilities. Companies that use AI wisely can innovate, create value, and grow sustainably. The focus is moving from just doing more work to doing better work and achieving great results efficiently.

2. Cloud & Infrastructure's Resurgence

The increasing computational and storage demands of advanced AI systems are driving a renewed focus on cloud and infrastructure technologies. Modernizing infrastructure is essential to support new tech, ensuring scalability, sustainability, and enhanced performance. This trend emphasizes the need for flexible, scalable, and resilient infrastructure that aligns with environmental and business goals.

3. Synthetic Data's Very Real Potential

Synthetic data, generated by systems using the statistical properties of real data, is emerging as a powerful tool for training AI models and employees. This technology enables secure, collaborative innovation by mitigating privacy risks and enhancing AI applications. Synthetic data can accelerate development cycles and improve product quality, making it a game-changer for data-driven industries.

4. Techno-Optimism vs. the Techlash

While tech advancements generate optimism, they also raise societal and ethical concerns. Balancing innovation with responsible use of technology is crucial to building trust among stakeholders. Companies should prioritize ethical practices, transparency, and robust data governance to mitigate the risks associated with rapid progress.

5. Humanity's Role in the Digital Age

The human element remains vital in a world of new tech. Organizations should adopt human-centric approaches that harness technology to complement and elevate human potential, ensuring that digital transformation efforts enhance the human experience and create lasting value.

INTRODUCTION

How do you navigate a world where technology reshapes the landscape every day? The answer lies in understanding the trends that will define tomorrow and acting on them today.

In this new era, where advanced technologies are becoming integral to business operations, the challenge isn't just about adopting new tech—it's about doing so strategically. Many companies are already exploring AI to enhance productivity and reduce costs. But the true innovators are those who look beyond the immediate gains and consider how these technologies can create value across multiple dimensions, improve key performance indicators, and drive sustainable growth. To stay ahead, businesses must balance speed with quality, ensuring that technology augments human capabilities without sacrificing the human touch.

We've identified five critical trends that are poised to redefine the business landscape this year:

1. The new productivity paradigm enabled by AI and GenAI
2. The resurgence of cloud and infrastructure technologies
3. The transformative potential of synthetic data
4. The ongoing tension between techno-optimism and techlash
5. The essential role of human-centric approaches in the digital age

These trends are about more than just technology—they're about how businesses can harness these tech advancements to innovate, build trust and resilience, and grow sustainably.

In this e-book, we offer insights and actionable recommendations, drawing from our deep, collective expertise in technology and industry. Our goal is to help you understand these trends and leverage them effectively, ensuring your business is not just thinking about the future but also preparing for it today.

CHAPTER 1

The New Productivity Paradigm

It isn't exactly breaking news to point out that many companies are exploring—or have already started deploying—use cases for AI, GenAI, and other advanced technologies to enhance their human workforce's capabilities. What might be less obvious: Not all companies are applying it strategically or multidimensionally—particularly if they're focused solely on increasing output, decreasing costs, or both.

Companies with a future-forward mentality go further: They consider the how, where, and why behind implementing workforce-enhancing technologies in ways that innovate, create value for stakeholders, improve KPIs, and drive sustainable growth. They also aim to strike a careful balance between speed and quality—allowing them to support talent-centric goals while augmenting productivity.

Driving the Trend

As AI and GenAI become increasingly embedded in the workplace, they're creating a new paradigm of productivity, one that is highly reminiscent of the 1990s-era introduction of computers into the workplace.

Productivity Since ChatGPT's Launch

Source: U.S. Bureau of Labor Statistics

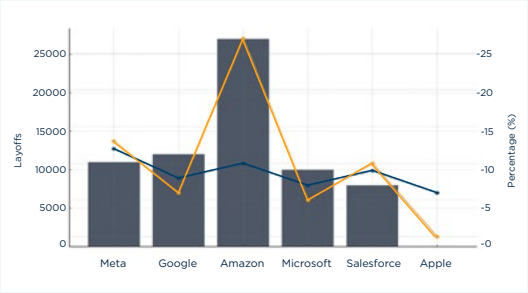
> AI is here, people are using it, and investment in it is essential for remaining profitable and competitive. But many companies are struggling with deployment—they don't know how to begin implementation, or can't identify the right use cases, or struggle to train their teams at scale to build even baseline levels of proficiency. These challenges must be solved to avoid lagging the competition and stalling business growth.
>
> **CASEY FOSS**
> *Chief Commercial Officer*

Perhaps the best evidence of increased productivity is found in the "Year of Efficiency," which started in 2023 when major tech companies strategically focused on optimizing their operations to achieve higher productivity and output while reducing costs.

This was accomplished through workforce reductions, restructuring, and leveraging technology to streamline processes.

The trend has continued in 2024 with further workforce reductions (albeit in more targeted areas), increased automation and AI integration, and a focus on core competencies. Companies did not hire back and instead figured out how to increase productivity per employee by taking a more holistic, strategic view of their resourcing and talent.

Tech Companies' Efficiency Metrics in 2023



Source: Public financial statements

PLUS: Forrester predicts AI-driven enterprise initiatives will boost productivity and creative problem-solving by 50%. If half a workforce's time can be dedicated to high-value goals, leaders should ask whether creativity becomes part of their productivity metrics.

Then there's the wide spectrum of readiness and adoption for GenAI. Microsoft and LinkedIn's 2024 Work Trend Index Annual Report found 78% of workers are bringing their own AI tools to work, while 60% worry their organization's leadership lacks a plan and vision to implement AI.

Apprehension related to job loss also is widespread: A June 2024 ADP Research Institute study found 41% of global workers believe AI will replace some or all of their existing job functions.

75%
of people are already using AI at work

46%
started using AI less than 6 months ago

Source: 2024 Microsoft and LinkedIn Work Trend Index

Why This Matters

It's time to modernize the definition of "productivity." People use technology to complete tasks that would have been incomprehensible not so long ago, from shaving hundreds of years off medical research timelines to using AI agents to plan entire vacations. It allows us to do more—but "more" does not necessarily equal "better." Organizations therefore should shift how they perceive productivity: Instead of focusing on sheer effort—doing more and working longer—leaders should aim to help people work more effectively by producing markedly better outcomes more efficiently. With the right tools and resources, and a culture that supports smarter workflows, organizations can unlock the full potential of their workforce while reducing stress and burnout.

Engaging your employees is the key to business value and growth using technology. By integrating AI and other emerging technologies in the right ways, businesses can streamline operations, automate routine tasks, and provide data-driven insights while still maintaining a focus on human capabilities. This allows employees to focus on strategic and creative activities that add real value to the business. In today's fast-paced, highly competitive business landscape, organizations are realizing that the key to success isn't pushing employees to their limits; success comes from creating an environment that fosters focus, creativity, and strategic thinking.

Technology is a means to an end, and your end goal should be adding value. Many organizations focus too much on how technology can help them remove costs. A healthier bottom line is an important metric, but it's just one of many that determine an organization's overall performance. AI and other advanced technologies can also augment your workforce in ways that boost other operational measures such as CSAT scores and product and service differentiation. This ensures investments in tools and processes drive top-line business results rather than simply removing costs.

Our Take

Redefine your meaning of productivity to mean **"better," not just "more."** Support this definition by **applying new technology thoughtfully** and in ways that **enhance human efforts**. Remember, the productivity paradigm shift may be technology-driven, but it's ultimately about **adding value for your human stakeholders**. You get there by **inspiring employees** to be a part of this journey. Only then will they **drive higher-quality outcomes**, including more desirable products and services, improved partner relationships, and increased customer satisfaction.

Actions to Take Now

1. Look for tech that helps people produce higher-quality results.

Technology that enables employees to deliver more meaningful results creates a heightened sense of fulfillment and engagement—which motivates employees to go above and beyond and, yes, even do more.

2. Invest in developing and enhancing AI skills for all employees—from the C-suite down.

Not everyone needs to be a "super user," but a basic level of literacy across all levels of the organization is necessary to jumpstart or continue making progress. Democratizing access to training for all employees, including those at the top, means everyone can contribute and be accountable for driving an AI-forward culture. After all, how can leaders inspire and train employees if they don't know the basics themselves?

> Upskilling is a major effort that requires time for all employees to experiment and innovate. The increasing prevalence of AI and GenAI—and organizations' eagerness to capitalize on them—may force a reckoning for any leaders who believe upskilling and learning are just 'nice to have' and demonstrate the importance of employees across the organization becoming better technologists.
>
> **RICK SABATINO**
> *Productivity & Change Expert*

3. Remember to manage the people aspect of organizational change.

When integrating new or updated technologies into business processes and workflows, don't underestimate the importance of effective organizational change management (OCM). Investing in OCM is vital for ensuring a seamless transition, minimizing resistance, and maximizing the benefits of tech-driven innovations. Remember, successful implementation requires not just comprehensive training—you also must manage the people-centric aspect of change.

4. Be transparent and human-centric when communicating about change.

Transparent communication is essential for building trust and reducing resistance to change. By clearly explaining the purpose, benefits, and potential impacts of technology integration, organizations can alleviate fears and foster acceptance. In advanced economies, about 60% of jobs may be impacted by machine learning, with an almost even split between those that will be positively or negatively impacted. Proactively addressing common AI concerns, such as job security and ethics, encourages employees to embrace new technologies, and this openness to learning fosters a culture of innovation and adaptability.

5. To drive AI adoption, think of it as talent—not tech.

What if you told employees to think of AI as interns? That is: If they understand how to train their "intern" to handle the basics, they'll have more time and brainpower to focus on more interesting and engaging work. When you consider AI as a new type of talent, you can unlock greater productivity for all your talent, whether they're in-house employees, contingent labor, or outsourced labor.

Employee-initiated change is more likely to be adopted. Once employees feel encouraged to innovate by applying AI, they'll become your most important generators of ideas for productivity improvements.

> Your AI-fluent employees will initiate the changes your organization needs to comprehensively transform how you operate, compete, and deliver value. Don't wait for your internal tech function or your competitors to point you toward the best and most productive use cases for AI—arm your employees with training and let them lead the way.
>
> **STEVEN KIRZ**
> *Business Transformation Expert*

The Bottom Line

To get to value quickly, start simply. Think about enterprise transformation and productivity improvements iteratively to ensure your vision doesn't end up buried under its own weight. Start with the tools and technologies that are already available or deployed to keep your organization from getting stuck. Use pilot programs to limit overbearing governance structures and cost-prohibitive investments. That way—rather than waiting for all the pieces to be 100% perfect—you keep moving forward.

CASEY FOSS
Chief Commercial Officer

Value Creation Levers

- Improve market position
- Increase revenue
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- Realize faster results
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CHAPTER 2

Cloud & Infrastructure's Resurgence

A new type of space race is emerging: the increasing desire—and competition—for digital and physical space within cloud computing power, data storage, and infrastructure.

These old-guard technologies may feel like last decade's news, but they continue to provide the IT foundation organizations need to deliver on the promise of new technologies, namely GenAI. Organizations face the need to continually re-evaluate their infrastructure, which comes with the potential for both upfront and long-term costs—not least of which might be the energy bill. The toughest part? Finding space in the bottom line to pay for it on top of the new tech investments organizations are already making.

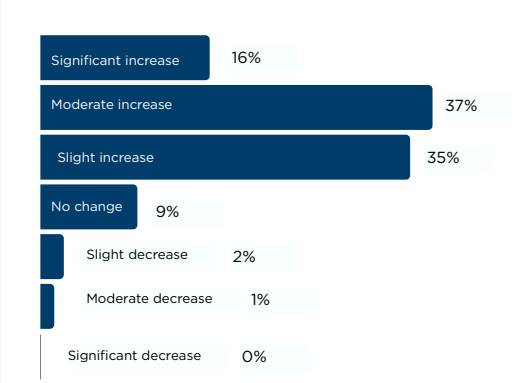
Another challenge: Any investments have larger implications for innovation, sustainability goals, security, and even climate change.

Driving the Trend

Organizations' escalating infrastructure demands largely stem from the growing computational requirements of AI, GenAI, and machine learning technologies.

These factors are leading many organizations to increase investments in AI, ML, and cloud infrastructure. Tech giants like Microsoft and Amazon are getting more stamps on their passport as they build AI-related infrastructure and data centers in places such as Mexico, France, Japan, and Singapore, and infrastructure spend from these companies is expected to surpass $100 billion this year—a figure likely to increase as demand does.

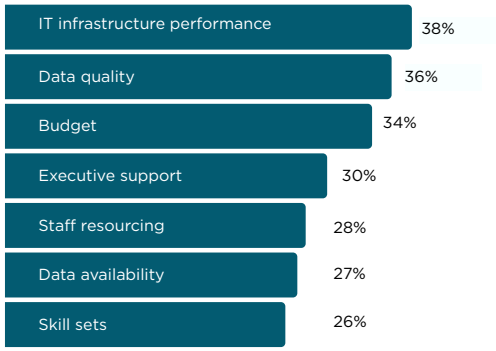
AI Infrastructure Spending



Source: S&P Global

Beyond organizations' desire to implement these advanced technologies, infrastructure issues also are the leading driver of project abandonment, suggesting they're inhibiting innovation and product and service development—the opposite of what should be taking place.

Project Abandonment Drivers



Source: S&P Global

Additionally, increasing global cloud adoption is driving Big Tech companies to construct data centers in the regions experiencing this transition. If they're deploying the latest hardware in their remote data centers, such as Nvidia GPUs, they need localized data centers to achieve maximum processing speeds and ensure data privacy and security.

The evolution of hardware and chips, particularly GPUs, is transforming AI solutions and models by improving efficiency and enabling edge AI to be embedded into smart devices. However, shrinking transistors to get more of them onto chips is immensely expensive, necessitating manufacturing innovations such as chiplets. The surge in GPU production has pushed limits, and although current high costs (up to $40,000 per processor) may drop, it could disrupt many business models. Ali Ghodsi, CEO of Databricks, predicts GPU constraints will ease similarly to past internet bandwidth issues.

The environmental impact of GenAI is significant, driving up electricity demand, increasing carbon footprints, and depleting natural resource. For instance, the Nvidia H100 microchip will consume as much energy as Guatemala in 2024.

> Data center power demand is expected to grow by **160%** by 2030.

Source: Goldman Sachs Intelligence

Why This Matters

Scalable and adaptable infrastructure is crucial for staying competitive. Smart businesses are able to meet current demand while building for the future. With technology evolving quickly, flexible infrastructure comprising both physical and cloud-based solutions is required. Creating a physical and digital presence helps reduce costs and enhance overall performance, enabling businesses of all sizes to integrate AI, ML, and other tech into their operations.

Innovation in hardware and software will continue to accelerate. Competition is driving innovation with AI, with advanced chips and powerful new hardware solutions regularly entering the market. While established tech giants such as Google, Amazon, and Microsoft have so far dominated the AI landscape, challengers are bringing new hardware to market, leading to optimized offerings that better meet market needs.

Environmental impact should factor into cost-benefit analyses of technology upgrades. Modernizing infrastructure using emerging and advanced technologies can enhance the performance of emerging technologies, but the benefits must be balanced against the potential drawbacks of increased energy consumption. For organizations prioritizing ESG or sustainability goals, overlooking environmental goals can pose significant business risks.

Our Take

Updating and scaling infrastructure should be a priority if organizations want to handle the increased demand for data storage and processing that comes with innovation. But companies also need to **approach infrastructure investment thoughtfully** by balancing several factors, including budgetary constraints; ensuring enough flexibility, scalability, and resilience to **support today's priorities and tomorrow's possibilities**; and your organization's sustainability goals and **environmental stewardship**.

Actions to Take Now

1. Determine your existing infrastructure issues.

Promptly identify infrastructure issues to understand your greatest areas of need for investment. And don't forget that infrastructure issues extend beyond what's outdated today: Existing security infrastructure might not be equipped to handle the unique threats posed by AI such as data breaches or model manipulation. By not taking the time to evaluate and ensure back-end security for new threats, your organization opens itself up to major business risks.

> Even companies collecting robust customer data are often hamstrung in their efforts to build or enhance what they sell because they lack the supporting architecture for timely access to data. Flexible, modernized data infrastructure and platforms allow business to incorporate real-time data and end-user feedback into their core products to engage customers and boost sales.
>
> **ANDY GAECKLE**
> *Customer Engagement & Platforms Expert*

2. Embed sustainability values into your infrastructure plans.

Companies that incorporate their environmental values into their infrastructure plans will be leaders in the AI movement. While the connection between AI usage and its environmental impact has been covered widely in the news, much of the responsibility has been laid at the doorstep of Silicon Valley vs. the end-users of AI and cloud storage. That, we expect, will eventually change. Thus, companies have the opportunity to recalibrate now, taking into account new expectations without completely forgoing their environmental commitments. A rebalance might be in order.

3. Build resilient plans and resilient infrastructure.

Develop a roadmap for infrastructure investments that can be recalibrated as circumstances change. Factor in new hardware availability and invest in solutions with modular designs that allow for easy updates and component swaps rather than complete system replacement.

Focus on evaluating and implementing data and cloud infrastructure that can accommodate expanding data-processing demands and higher-than-ever volumes of data—particularly if you foresee AI-related workloads that rely on real-time data processing.

Conduct regular assessments to predict future data volumes and processing needs. Above all else, don't react to growth—anticipate it. Invest in infrastructure that offers horizontal scaling, allowing you to add power and storage resources seamlessly as demand increases. By planning for future growth and incorporating these advancements, you can ensure a competitive edge while minimizing operational costs and environmental footprint.

> The energy and computing-power needs of data centers and LLMs are, at times, directly at odds with sustainability goals. It will take a partnership of forward-thinking policy makers, utilities, and private infrastructure investment to meet what will be generational growth in the demand for electricity. Companies first need to evaluate the feasibility of technology and infrastructure investments alongside their immediate and long-term strategies and then must examine what impact or tradeoff will be required to make meaningful progress toward decarbonization.
>
> **PAUL DECOTIS**
> *Energy & Public Policy Expert*

4. Don't miss the next tech wave because you're too focused on AI.

Stay vigilant about emerging technologies, as some are already in use today. Quantum computing, for instance, may seem futuristic, but industries like manufacturing, healthcare, and financial services are already investing in it to gain a competitive edge. While not all organizations need to prioritize quantum investments now, it's crucial to recognize that a wait-and-see approach isn't viable—think how "futuristic" GenAI was just a few years ago. The point: If your organization's technology is already living in the past, your future challenges will only increase.

The Bottom Line

Tech innovation can change the market landscape seemingly overnight, and there's no sign the pace of disruption will slow—if anything, it will increase. We've seen this happen before, and we'll continue to see this happen: New players with forward-thinking visions edge out the long-time industry leaders that are too short-sighted to invest in their own futures. No organization wants to be the next Blockbuster when their industry's Netflix comes along.

CAM CROSS
Data & Analytics Expert

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Increase efficiency

Increase employee satisfaction

Increase revenue

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Fortune: Amazon CEO says companies must strike the right balance between infrastructure and AI investment

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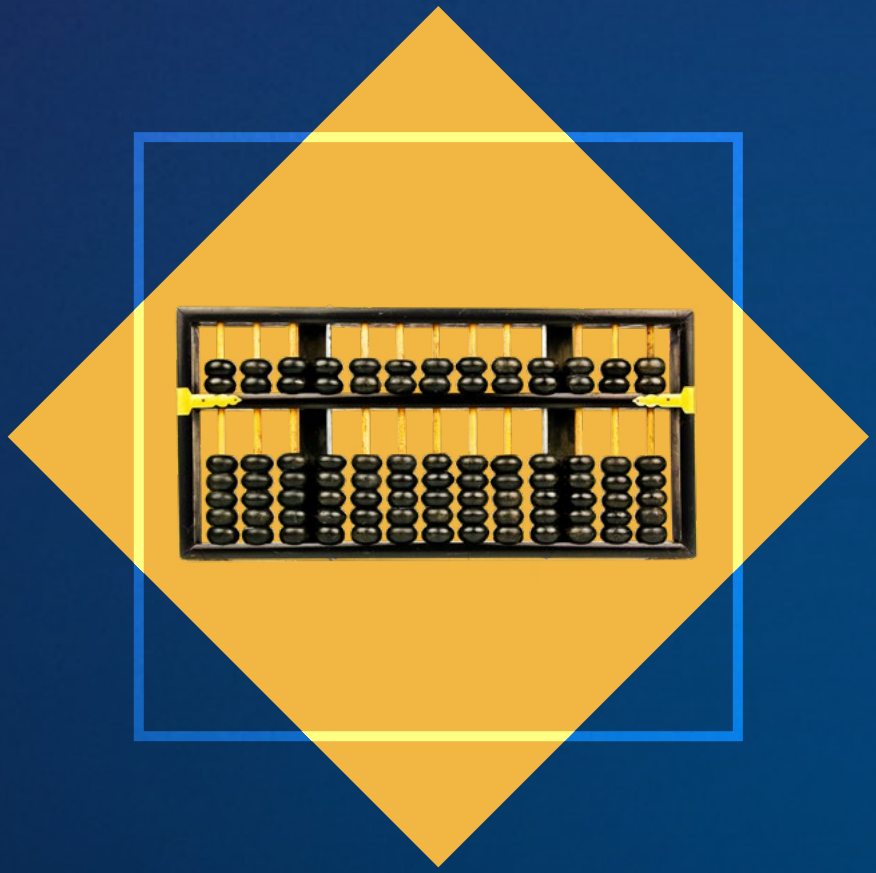
CHAPTER 3

Synthetic Data's Very Real Potential

Data is the catalyst that spurs and sustains transformation, productivity, and innovation. In short, it's a key that can unlock real and measurable value—when wielded effectively.

But the ability to capture, access, maintain, and secure the right data can be a tall order for many organizations—especially those in highly regulated industries or those without a foundation of reliable, real-time data. If data is the key to future success, how can businesses with such challenges maintain their competitive edge by leveraging something they might not even have?

Enter synthetic data—that is, data that is not the result of manual collection, measurement, or observation but instead is manufactured by systems, simulations, or models using the statistical properties of the real thing. With synthetic data, choosing between the data you have and the data you need could be a thing of the past.



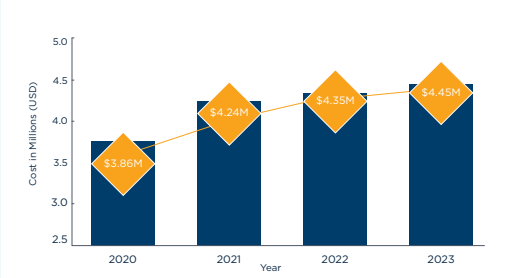
Driving the Trend

The industry around synthetic data is growing and is expected to reach $1.15 billion by 2027. This growth is largely a result of regulations related to data privacy, but three other factors are driving companies toward synthetic data: the cost of data breaches, the need to protect privacy and security related to training new AI and ML models, and increasing expectations about data sharing.

Data breaches

The global average Cost of a Data Breach in 2023 was $4.45 million, a 15% increase over three years. With data breaches costlier than ever, companies are turning to synthetic data sets when they can to protect themselves from ransomware attacks and other privacy issues.

Average cost of a data breach (2020 - 2023)



Source: IBM

Training AI/ML models

From biotech companies modeling with synthetic data for R&D to financial institutions using synthetic data to combat credit card fraud, organizations in every industry can use synthetic data for advanced modeling. Especially with the rise of GenAI and advanced large language models, companies are increasingly looking to synthetic data as a way to train AI on similar information without compromising individuals' privacy.

28% of data scientists blame a lack of data access for failed AI/ML deployments

Source: KDnuggets and MOSTLY AI

> In today's age, the success of any strategic initiative is based, in large part, on how good your data is, and organizations won't become more successful simply by capturing more data. It also comes down to improving data quality and automating data workflows to support your processes and solutions and drive more effective outcomes.
>
> **CAM CROSS**
> *Data & Analytics Expert*

Data collaboration and sharing

The increased pressure to share data outside of a company's four walls, both within and across industries, has been driven by several factors, including the pursuit of innovation, regulatory requirements, and the need to achieve results faster. Consider the public health response to COVID-19 and the data shared among healthcare providers, insurers, public health agencies, and pharmaceutical companies, or automakers sharing data on performance and safety with stakeholders to gain trust and momentum for autonomous vehicle technology.

66% Companies participating in data sharing that say they've improved collaboration with partners and vendors

53% Companies participating in the data economy that say it's led to new business models

Source: MIT Technology Review Insights

Why This Matters

Synthetic data enables secure, collaborative innovation. Synthetic data allows organizations to more readily collaborate and share data, exchanging valuable insights while ensuring sensitive information remains protected. Data doesn't need to be "real" to train models, create simulations, or revise projections. This removes common barriers to collaboration such as data privacy and misuse risk. Plus, the ability to work collaboratively with complementary organizations allows companies to accelerate innovation and advancements, thanks to shared knowledge and resources.

Synthetic data can be used to train AI models—and talent. Synthetic data can be used to train employees and LLMs without exposing real data, further enhancing organizational readiness for AI. It can also help mitigate bias in AI and build adherence to future legal requirements for it. Google and Amazon have been using synthetic data for years, noting that it helps close gaps in real-world data sets and prevents having to use obsolete data.

With synthetic data, trust and compliance can be preserved. Organizations can more easily ensure compliance with data protection regulations (GDPR, HIPAA, CCPA) and reduce legal risks associated with data breaches and non-compliance. At a point in time when customer loyalty is hard to build and even harder to regain once lost, ensuring that customers believe companies are keeping their personal data safe and secure is crucial.

Our Take

Synthetic data can be a **potential game-changer** for industries that rely heavily on data but are heavily regulated. Beyond compliance, synthetic data can be a **catalyst for innovation** by allowing companies to develop and test new products and services without the risk of compromising customer data. It can be a supplement if you're lacking "good" data and can be used as a stand-in for scenario modeling. This, in turn, **accelerates development cycles** and enables organizations to **bring new products to market faster**—without sacrificing quality or security.

Actions to Take Now

1. **Explore synthetic data generation tools.**

   Synthetic data can be generated in a variety of ways using traditional programs (think Microsoft Excel), developer tools (such as existing Python-based libraries), or new platforms specifically designed for this purpose. The last option can be the easiest but also requires a greater investment in training time and budget allocation. How you get there matters less than reaching the goal to get insights and analyses that are as accurate and actionable as those obtained from genuine data sources—and that provide a solid foundation for data-driven decision-making and innovation.

2. **Keep practicing proper data governance.**

   Data governance is still important, even when working with synthetic data. While its artificial nature mitigates many risks, that doesn't mean this type of data should be handled with less care. Organizations should still establish and enforce policies governing its generation, usage, storage, and sharing.

> By tokenizing and de-identifying data, organizations can create a comprehensive, longitudinal view of patient journeys or customer profiles without exposing PII or PHI.
>
> **AMIE RICHARDS**
> *Data & Analytics Expert*

3. **Integrate synthetic data into development workflows.**

   To fully leverage the potential of synthetic data, organizations should seamlessly integrate it into their existing development and testing workflows. By incorporating synthetic data into these processes, teams gain the freedom to experiment, innovate, and iterate without being constrained by data privacy concerns or limitations in available real data. This integration can significantly accelerate development cycles, allowing for more rapid testing of new products. Moreover, the use of diverse and comprehensive synthetic data sets can lead to improved product quality and reliability by exposing potential issues that might be missed with limited real data.

4. **Don't use synthetic data to get around solving real data problems.**

   To fully leverage AI, it's essential to establish a solid data foundation. If real data is poorly structured or insufficient, synthetic data can be used to predict trends and identify outliers without introducing biases—but it's not a replacement for solving real data challenges. Looking ahead, the focus will shift to the growing data economy, emphasizing data monetization and other proprietary uses of data. Because of this, synthetic data might have a smaller role in the future, so consider this possibility in your data strategy.

> You can test the viability of various models with fully synthetic data. However, you need "real" data with no PII to do anything meaningful in certain industries. For example, for AI to detect brain cancer, it needs to be trained on actual images of the brain that are clear and show various forms of cancer—but you need to strip those images of anything that could identify the patients.
>
> **ERIK BROWN**
> *Emerging Technology & AI Expert*

5. **Educate internal and external stakeholders.**

   Education and awareness are key components of a successful synthetic data strategy. But just like when working with "real" data, organizations should educate their stakeholders on how to handle synthetic data along with its benefits, best practices for generation and use, and its role in driving innovation and efficiency. Importantly, stakeholders should understand how and when to trust synthetic data—though it isn't "real," it's also not "fake." It's generated from the statistical properties of true data sets.

   Finally, be transparent with your customers and outside partners if you use synthetic data to create new products and services and demonstrate why you chose to use it. Education and transparency can encourage widespread internal adoption of synthetic data and increase trust among stakeholders.

The Bottom Line

> Many organizations find their employees' level of data fluency, on average, poor. Computational thinking is not an intuitive set of skills that most people just pick up on their own. With or without synthetic data, most organizations can benefit from upskilling their workforce to be data-fluent. But without concurrent investment in people, organizations that adopt synthetic data may struggle to fully realize its value.
>
> **RICK SABATINO**
> *Productivity & Change Expert*

Value Creation Levers

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CHAPTER 4

Techno-Optimism vs. the Techlash

Today's pace of innovation is faster than ever, driving advances across industries and creating a sense of optimism among shareholders and consumers about what the future holds.

For example, in January 2024, Neuralink implanted its first chip into a human brain with the intention of controlling a computer cursor or keyboard with a person's thoughts alone—a massive advancement for people with neurological disorders, but something out of a science fiction novel if the technology goes awry. In the same month, Apple released the Vision Pro. Reviews were primarily positive on the promise of the technology's "helper" role in our daily lives, though the sticker price and utility left much to be desired.

Not everyone is optimistic about technology, or at least not about every aspect of it. While technology itself is a neutral concept, the ways it can be used and the people that build and deploy it are not. Misguided or irresponsible technology use can have significant negative impacts, as can the increasingly invasive and pervasive nature of it. That's led some to feel apprehensive about it, even fearful, creating a phenomenon sometimes referred to as the "techlash."

Driving the Trend

To illustrate the tension between techno-optimism and the techlash, consider differing sentiments about three areas of technology: GenAI, data, and screen time.

GenAI

Business leaders view "rapidly advancing AI technology" as a high-impact external issue, going as far as saying whoever has the most advanced generative AI holds the biggest competitive advantage. With this optimism comes uncertainty:

56% of CEOs and **62%** of C-suite executives believe AI creates additional layers of organizational risk

37% of CEOs and **43%** of C-suite executives believe AI will increase their regulatory burden

50% of CEOs and **51%** of C-suite executives believe AI will displace labor in their organizations

Source: The Conference Board

Data

As data sets grow, so does the responsibility to use them properly—not just to meet compliance standards but also to address new consumer expectations. For example, the Illinois Biometric Information Privacy Act (BIPA) was designed to protect Illinois consumers and employees from company misuse of data taken from people's facial imaging, fingerprints, voiceprints, and retina scans. More than 2,000 lawsuits have been filed under BIPA, and the fallout has been costly.

Noteworthy BIPA Payouts

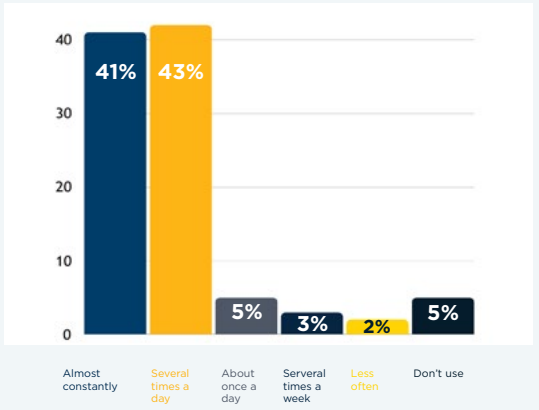
Notable names:	Notable payouts:
Facebook	$650M
Google	$100M
TikTok	$92M
Snapchat	$35M

> Responsible AI and data governance are critical for leveraging the full potential of AI while safeguarding against its risks. By prioritizing ethical practices, transparency, and robust data management, organizations can build AI systems that are not only powerful but also trustworthy and aligned with societal values.
>
> **MIKE MANSKE**
> *Cybersecurity Risk & Compliance Expert*

Screen Time

People admit they use technology constantly—both in their personal and professional lives. But not everyone likes being so tethered to devices all day long, which has led to a rise in "digital detox" periods and retreats and other ways to "unplug." In other words, people are accepting tech to a point—but seek balance. Roughly 4 in 10 U.S. adults say they're online almost constantly, but 3 in 10 engage in two-plus hours of digital detox each day.

U.S. Adults' Internet Use, in Percentages



Source: Pew Research Center

Why This Matters

The relationship between techno-optimism and trust is strong. Creating techno-optimists among your stakeholders comes down to trust. Four in five CEOs say transparency around their organization's adoption of new technologies is critical to fostering customer trust, with 71% saying that establishing and maintaining customer trust will have a greater impact on their organization's success than any product or service. Leaders set the standards in balancing innovation with security—and technology use with in-person interactions—to move organizations in the right direction.

Emerging technologies require human guidance and monitoring to prevent techlash. The idea of "techlash" and disillusionment with the dark side of technology will be on the rise as employees, stakeholders, and customers expect positive experiences with emerging technologies. The onus will be on leaders to acknowledge how their emerging technologies still involve human guidance, and—especially when they are in experimentation mode—aren't perfect. Algorithms can drift, biases can be created, stopgaps can be shifted. Leaders need to establish roles to ensure that solutions in place are being properly monitored, tested, and adjusted with transparency.

Techlash can ensure healthy skepticism—keeping it in check is the key. Techlash isn't necessarily bad. It can act as the checks and balances to irresponsible innovation. The key is to minimize it—even listen to it—so that progress doesn't stall. Strike the right balance of innovation and caution—and adjust that balance over time as human comfort increases. While you can only control your company's realm, being vocal about where your company stands on innovations in your industry and participating in the public conversation can increase trust in your brand.

Our Take

The clash between techno-optimism and techno-pessimism presents a call to action: Companies must **ensure the desire to innovate, differentiate, and experiment does not take precedence over good stewardship.** Technology holds enormous potential for driving positive change, but only if the people wielding the technology **act responsibly.** To keep "techlash" in check, organizations need to commit to **ethical technology use, transparency,** and **robust data privacy** and **data governance measures.** By **maintaining trust** and **innovating the speed of acceptance**—not just within your organization, but broadly and publicly—companies can create momentum.

Actions to Take Now

1. **Practice ethical technology development, use, and implementation.**

   Develop and enforce guidelines to address data privacy, algorithmic bias, and transparency. Continually conduct internal compliance audits to ensure technology solutions operate as expected and remain free of new bugs or biases. Regularly upskill and reskill teams to stay current with technology trends and understand the "what" and the "why." Establish a uniform approach for AI use across departments, creating a cross-functional committee to ensure alignment. Reduce undocumented software usage, or "shadow IT," to maintain ethical technology standards.

2. **Engage stakeholders for continual feedback.**

   One simple way to demonstrate a commitment to ethical practices is to maintain open communication with stakeholders (employees, customers, external partners, etc.) to address concerns and gather feedback—then demonstrate follow-through on their suggestions, or clearly show the reasoning behind anything not implemented.

   Smartphone makers have continually released new screen-time management capabilities and parental controls, for instance, in response to the growing addiction of mobile technology and associated problems such as mental health issues, inability to focus, and automobile accidents.

> Most people don't understand how the technology they've been using for years works, let alone more recent innovations such as LLMs—and many haven't grasped the extent to which AI is embedded into everyday devices and platforms. Without regulations mandating additional transparency, AI will discreetly operate in the background without oversight, which underscores the need for organizations to build customer trust through transparent, ethical practices.
>
> **CORY CHAPLIN**
> *Technology Expert*

> Our capacity to accept human error seems endless, but our capacity to accept machine error is practically zero. The discussion around how trust-related considerations are integrated into the development and deployment of AI models and AI-enabled products is going to continue to evolve over the next few years, and if organizations don't figure this out, it's going to stifle innovation.
>
> **ERIK BROWN**
> *Emerging Technology & AI Expert*

Actions to Take Now

3. **Be transparent about your approach and position.**

With the rapid advancement of technology, organizations face increasing scrutiny over the impact of their innovations. When companies are transparent and intentional about their approach to protecting their stakeholders, trust remains—and we all know that trust is difficult to maintain, and even harder to regain once lost. Your employes take their cues from the top: Clearly communicate your principles, avoiding silos or secrecy, to help employees seamlessly integrate these principles into the company's systems and solutions. For external audiences, highlight responsible technology use in industry thought leadership and on social media and your website, creating transparency and can generate positive media coverage.

4. **Continually update cybersecurity protocols to keep up with advancing tech.**

New threats emerge all the time, and bad actors continue to get more creative. What works today won't work forever, meaning cybersecurity can't be a one-and-done initiative. The responsibility for risk management should be shared across teams and leaders. In particular, mitigating reputational and regulatory risks requires more involvement from the C-suite at large—not just the CIO or IT team. Know this: A new era of cybersecurity prioritization is underway as consumers and employees grow weary of cyber incidents. Any executive knows perfection is not possible, but standing still in your approach is not an option.

5. **Adopt accountable data practices.**

Building customer trust hinges on responsibility and transparency in data/AI practices. This includes ensuring data privacy and creating robust governance structures to prevent bias from both humans and machines. Consider issuing a quarterly data update to stakeholders by sharing an email newsletter or intranet update to note any changes to privacy agreements or data practices. Being proactive both holds the organization accountable and shows stakeholders that the organization is highly attuned to how their data is being used.

> The cybersecurity space is always evolving, and some of the latest threats involve attackers leveraging AI for scams, data breaches, ransomware, and more. Even phishing emails have gotten more sophisticated because of GenAI. The good news: Organizations can fight fire with fire with AI-enabled cybersecurity tools that run alongside other cybersecurity solutions and protocols.
>
> **MIKE MANSKE**
> *Cybersecurity Risk & Compliance*

> There are two sides to trust when talking about data. Companies need to know if their data is accurate to determine whether they can trust the analyses and insights their technology is providing. On the other side are their customers, who need a high level of trust that the companies they work with or buy from are using their data properly.
>
> **AMIE RICHARDS**
> *Data Expert*

The Bottom Line

> The fastest way to create pessimism about technology is being too afraid to make a move. How do you create optimism? By engaging—testing, evaluating, iterating—and becoming intelligent about new solutions, so you fully understand the opportunities as well as the risks to be mitigated.

ERIC JOHNSON
Product & Experience Expert

Value Creation Levers

Improve market position

Increase customer satisfaction

Increase efficiency

Increase employee satisfaction

Increase revenue

Realize faster results

Reduce costs

Reduce risk

Dive Deeper

Your workforce is using GenAI wrong—here's how to fix it

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Harvard Business Review: How to Avoid the Ethical Nightmares of Emerging Technology

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CHAPTER 5

Humanity's Role in the Digital Age

Human history has always been defined by the technology that shaped each era: the Stone Age, the Iron Age, the Industrial Age, and now the Digital Age. But even as digital technology advances rapidly, the same principle remains: Technology will always have the potential to change industries and economies.

And as technology grows more powerful and pervasive, many ask the question: Where do humans fit in?

In the Digital Age, the human element is more important than ever. Even GenAI—which can produce new ideas, content, and artwork—is only able to create something from seemingly nothing because it was trained using human-generated data and built by human engineers.

So whether you implement—or invent—new technologies, remember they are only effective when the human experience is improved. Tech for tech's sake falls flat; the human is the most important part of the equation. Always.

Driving the Trend

Human sentiment about technology is a mixed bag.

86% of Gen Z believe technology is increasingly essential to our lives

54% believe increased use of AI will help them get things done faster

51% desire more regulation of major tech companies

Consumers are uncertain about how AI should fit into the products and services they use: While two-thirds (66%) believe products and services that use AI will profoundly change their daily lives in the next three to five years, they're unsure whether that's a good thing or a bad thing.

53% of consumers are excited about products and services that use AI

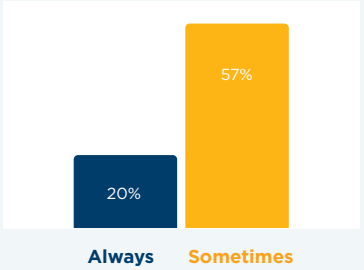
YET

50% of consumers are nervous about products and services that use AI

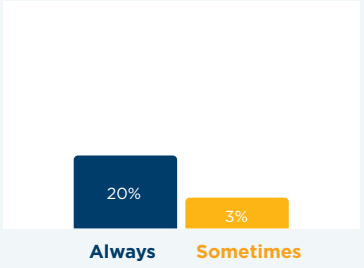
A real issue: not enough input when developing products and services. More human input when developing technology is needed, especially from customers, to bring human centricity to the forefront.

When Do You Involve Customers in Your Product Development Process?

At the beginning and end only:



Throughout every stage of the process:



Source: 2023 Digital Disconnect Report, West Monroe

Yet there is a growing understanding among organizations that technology is no substitute for our humanity in certain areas. Many human-centric skills—including creativity and leadership ability—remain highly in demand for organizations. In fact, some so-called "soft" skills, such as problem-solving, are more in demand than most "hard" or technical skills, according to a recent Wiley report.

There has been a **190%** increase in explicit mentions of soft skills in job advertisements from 2019 to 2023.

Source: The Stepstone Group

One of the simplest ways to embed human centricity into your company? Investing in the time it takes to truly understand user needs before implementing technologies and systems and redesigning processes. The result: You'll make work faster, easier, and—maybe most importantly—more enjoyable for people.

ELLI RADER
Product & Experience Expert

Why This Matters

The more technology advances, the more important the human element becomes. Despite tech advancements, people will always desire easy-to-navigate, enjoyable user experiences, as well as intuitive, well-designed products and services that solve problems without creating new ones. And this goes for both B2B and B2C buyers. But a company's new differentiator may become its human element—that is, buyers may begin evaluating how well companies embed human centricity and human elements into a product, service, or experience.

Human centricity is hard to get right. It's clear that people think about technology's role in their daily lives, including the products they use at work and at home. And their concerns about the issues—from privacy invasion to not understanding how to use new tech—are not unfounded.

What we see: Not enough organizations consider technology the enabler vs. the complete solution. Even the "smartest" AI lacks the emotional range, empathy, and intuition of a human. Striking the right balance between tech and the humans it's supposed to benefit has been more of an art than a science—and stakeholder reactions reflect that.

A truly holistic focus on human centricity must go beyond the customer. An IBM study found almost two-thirds (64%) of CEOs feel their organization must take advantage of technologies that are changing faster than employees can adapt. And 21% aren't confident their organization puts employees' interests above its own when implementing AI. Studies like this highlight leaders' well-meaning desire to capitalize on the latest technology—but steamrolling can drive top talent out.

Our Take

A **human-centric approach** to anything you design, deploy, or deliver ensures your organization ultimately enhances people's **experiences and well-being**, and, importantly, **does not detract from them**. Organizations that prioritize human centricity alongside technology are well positioned to **produce more innovative, effective products and services**, ensure **more fulfilled employees and customers**, and drive **superior outcomes**.

Actions to Take Now

1. Foster a human-centric approach to innovation.

Achieving inclusive, human-centric innovation requires thorough research on user preferences, challenges, and needs, and ensuring data informs every stage of both product and service development and every customer touchpoint. However, end-user research is just one aspect of a human-centric approach. Companies should also create and empower teams with varied expertise and different experiences, as diverse perspectives spark new ideas and fuel the level of creativity and collective problem-solving that helps organizations stand out from the competition.

2. Design strategies that allow both the business and your workforce to thrive.

Supporting your workforce and driving better business results can go hand in hand if new tools, processes, policies, and workflows are designed with empathy. Align workforce needs with organizational goals to help employees make a bigger impact and work more efficiently through technology. Understand pain points when implementing changes, and communicate the long-term benefits for both teams and the organization. Measure the impact on job satisfaction and morale—in addition to throughput and revenue—and remain flexible to adjust if needed. Remember: Processes and technology can be replaced, but top talent is invaluable.

3. Let humans call the shots.

Even within workflows benefiting from AI or automation, some areas must stay under human control. Amazon's attempt to use AI for resume evaluation between 2014 and 2017 failed due to bias against female applicants, leading to the project's termination. AI can make mistakes, so regularly audit systems, enforce data governance standards, and maintain human oversight for critical decisions.

If you're looking to embed more automation or new AI use cases into your organization, first, conduct employee roundtables and focus groups to learn their pain points and identify roadblocks. Collaborate with them to decide what should be automated, what should remain manual, and what would be most valuable as a hybrid effort. These activities help to create harmony between your human workforce and the AI "employees" that augment their efforts.

> The key to making AI work is knowing where to draw the line. Smart companies use AI for what it's good at but keep humans in the loop for the important decisions.
>
> **CAM CROSS**
> *Data & Analytics Expert*

5. Invest in employee growth.

Championing human-centric values can translate into real-world business benefits. A good example of this: a workplace culture that supports and encourages continuous learning, which boosts employee engagement while also increasing an organization's access to new and broader skillsets and deeper expertise.

Focus on honing soft skills, such as emotional intelligence and critical thinking—which are hard to replicate or replace with technology—as well as technical skills, such as spotting biases within data or AI models.

> Technology allows us to enhance what people are capable of, create even more personalization, be even smarter about how we serve people, and make their overall experience exponentially better. But we also need to avoid the mistakes of the past by moving at the right pace—not too quickly, not too slowly—and always challenge our own assumptions to ensure no one is being left behind in our quest for innovation.
>
> **JONATHAN WILLIAMS**
> *Product & Experience Expert*

The Bottom Line

Despite all the recent AI advances, human intelligence remains much more valuable, because AI is just a tool. But it's a tool that can meaningfully augment what our intelligence can accomplish. And if we're able to accomplish more, we're able to focus on bigger problems—and there's no shortage of existing challenges we need to solve. Any technology presents an exciting opportunity to use it in humane, ethical, moral ways to make people's lives better, and that's key to how we should be thinking about AI.

JONATHAN WILLIAMS
Product & Experience Expert

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Improve market position

Increase customer satisfaction

Increase efficiency

Increase employee satisfaction

Increase revenue

Realize faster results

Reduce costs

Reduce risk

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What Comes Next

In today's fast-paced digital world, staying ahead isn't just advantageous—it's essential. The five trends we've explored—AI-driven productivity, cloud infrastructure resurgence, synthetic data potential, tech stewardship, and human-centric approaches—offer a glimpse into technology's future impact on business.

Winners in all industries will be those who balance current challenges with forward planning. Use these insights to guide your strategic decisions, considering how these trends might reshape your operating model, customer relationships, workforce, and offerings.

Success lies in digital agility—thoughtfully adopting new technologies while prioritizing ethics, privacy, and security. As AI evolves, security and governance provide critical guardrails to test, learn, and innovate safely. Remember, technology is increasingly the foundation of trust among customers, partners, employees, and shareholders—and a key factor in how it's lost.

By continuously adapting to these trends, you'll build the resilience to face whatever comes next. The organizations that will thrive treat technology advancement not as the end goal, but as a means to create value, solve problems, and improve lives.

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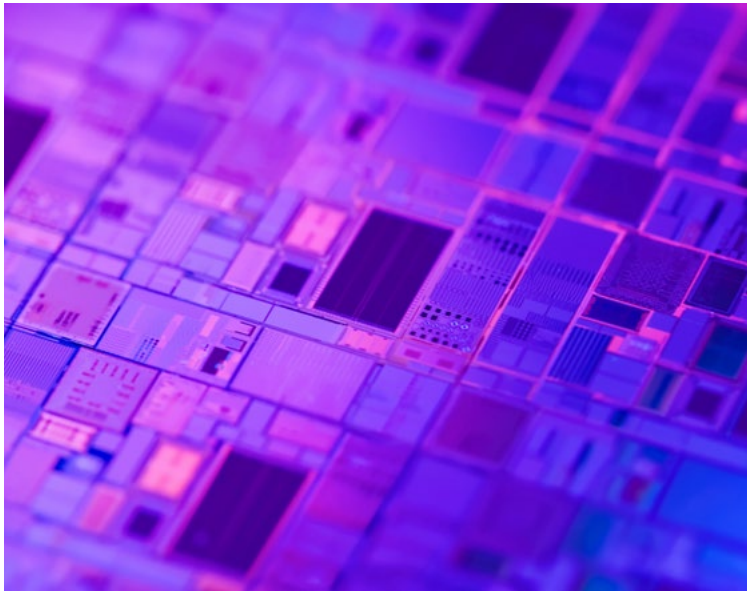
About West Monroe

West Monroe is a digital services firm that was born in technology but built for business—partnering with companies in transformative industries to deliver quantifiable financial value. We believe that digital is a mindset—not a project, a team, or a destination—and it's something companies become, not something they do. That's why we work in diverse, multidisciplinary teams that blend management consulting, digital design, and product engineering to move companies from traditional ways of working to digital operating models—and create experiences that transcend the digital and physical worlds.

Visit westmonroe.com to learn more.



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