

THOUGHT LEADERSHIP

DIGITAL TRANSFORMATION **DISRUPTION**

TRUENORTH TECH JOURNAL

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Digital Transformation Disruption

Few phrases generate as much excitement and confusion as digital transformation. Our thought leaders maintain that companies can no longer take a “wait and see” stance: you need to start the disruption process now. North Highland is committed to helping you create a “do-adapt-learn” mindset that will enable your organization’s transformation.

Perhaps you’ve been waiting to see the results of other digital transformations, or you are still confused by what digital transformation really means for your organization. The simplest path forward is to take a fast-mover stance and learn to grow with the digital disruption that benefits you most: deliver value to your customer sooner.

In this year’s True North Tech Journal, we will cover topics that help to enable your own transformation that include a point-counterpoint discussion of digital versus data, Modern Data Platforms, Digital IT Operations, and the expanding role of female leaders in IT.



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Shaping Digital Transformation from the Top Down

by [BEN GRINNELL](#)

Welcome to the *True North Tech Journal*, our annual thought leadership series. This edition covers a wide variety of topics designed to help your business kick start the journey to digital transformation. From data and analytics to the changing roles of the C-suite, and how women in IT leadership roles are shaping digital disruption, we've unpacked the critical steps to success.



As a business leader, you know that change is accelerating, and transformation is inevitable. Digital transformation becomes the driving disruption in an organization's day-to-day business processes. The change brought by disruption can be traumatic. You may feel as if you've taken one step forward into digital transformation only to fall two steps back from the organizational reaction—not unlike how antibodies attack a virus when it is introduced in your body.

HOW THE
C-SUITE
DRIVES
DISRUPTION
THAT
IGNITES
CHANGE

Comparing your disruption to the “antibodies” scenario, you can see the importance of maintaining the momentum of the change, and like a good physician, anticipate the next attack of corporate antibodies by preparing for where they will come from and treating them proactively with alignment conversations before they react. As your new ways of working spread across organizational silos, there is always a danger of new attacks. This requires investment in pre-emptive alignment strikes (starting at the top) to prevent these attacks from sapping momentum. Each business silo has a role to play in alignment. One technique I recommend is to start with one process and then evolve to deliver transformation across the entire organization. Your business benefits from the newfound speed, scale, and power of innovation. When you adopt a do-adapt-learn process, you achieve a first-mover status and competitive advantage in the digital landscape.

To be successful, business leaders must accept that digital disruption is the foundation of digital transformation¹ and that this type of disruption can't be accomplished in silos. You can initiate the change by introducing Agile methodologies and delivering value to your customer more quickly. However, if you change one project function while the rest of the business stays the same, it will drastically impact your ability to ignite lasting transformation.

Here are a *few tips* to support your transformation needs based on common business areas:

Sales and Marketing

Your Chief Marketing Officer (CMO) can start by implementing a culture and experience strategy that thrives on inventing new ways for multi-skilled employees to work together. Your intended outcome is the creation of an integrated, iterative, omnichannel experience designed to anticipate your customer's needs.

Information Technology

Your Chief Information Officer (CIO) or Chief Technology Officer (CTO) can lead the charge by establishing a team that bridges existing silos to create a modern and continuously evolving IT capability. This new core competency will support everything in the organization.

Human Resources and People Operations

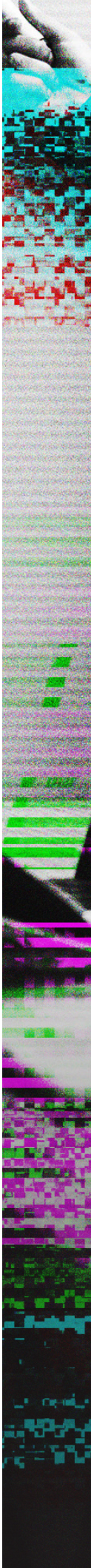
Your Chief People Officer (CHRO) can cultivate cultural change by empowering a digitally savvy workforce, transforming ways of working surrounding new technology, and project managing new HR technology rollouts. The end goal for HR is a flexible workforce with the tools and skills necessary to operate in a digital world.

Operations

Your Chief Operations Officer (COO) can enable digital partnerships that better connect the business front end with the business back end. This can take shape by leveraging digital partnerships to create an overhauled supply chain that matches the customer's expectations.

Business Model

Your CEO maps the business direction and sets strategic targets for disruption². How do you increase the flow of change and shorten the feedback loop? The answer lies in adopting a product mindset to improve time to market. This is a stark shift from the industrial age, where organizations hypothesize and preach from the center. Instead, data powers learning and evolves organizations at their edges. In the ruthless adapt-or-die digital world, the centralized power model simply isn't fast enough to survive. Start by making tiny changes and cycle back often to keep your focus fixated on the end-user. Leaders should foster a blameless culture that rewards experimentation to increase customer value.



Paving the Way for Transformation

Our three-pronged approach to building a culture that embraces the opportunity in digital transformation:

- 1 Align your leaders** – Ensure the Agile agenda is supported by implementing a common language to explain the changes. Then, rally internal ambassadors to build energy around it, effectively avoiding “corporate anti-bodies” that discourage change.
- 2 Empower your Trailblazers** – Build a team that considers new ways of working. Avoid flashes of brilliance and illusions of progress by determining how to make change sustainable. Avoid creating an “us and them” culture where things are done in isolation.
- 3 Establish your Trail-builders** – Assign “trail-builders” that take the work of trailblazers and ensure others can follow it. Build momentum for change and clear the trail for your organization’s transformation by using Agile product coaches to foster successful implementation.

Digital transformation is attainable. You can get there by accepting that once you start, the secret to success is an exhilarating “do-adapt-change” mentality. Take a look at our latest *True North Tech Journal* blogs, and check the North Highland Insights page for related publications throughout the year:

- *Starting your Transformation with Digital or Data: In this True North Tech Journal Point-Counterpoint special edition, we debate the first ingredient of a successful business transformation—digital or data?*
- *The Chief Data Officer is the Pioneer of Enterprise Reinvention: Explore how data leaders continue to achieve data-centric business priorities while keeping disruptive technologies and future innovation top of mind.*
- *Transforming Technology: Today’s Female IT Leader is Tomorrow’s Change Maker: Implement these six action-oriented steps to advance diversity and inclusion in the technology sector.*
- *Enabling Transformation for Information Technology Leaders: Digital IT Operations disrupts the pitfall of throwing a new service over the development fence into operations.*
- *Driving Data Monetization through Transformation: How North Highland implemented a first-of-its-kind, cross-functional visualization strategy that made data accessible for real-time production.*
- *Technology Transformation in the Public Sector: A client solution rooted in change management, helped unlock the potential of technology by powering not only a change in technology, but also a transformation in ways of working.*
- *Artificial Intelligence is here! How Ready Are You? An AI-Readiness quiz designed to determine if your team is ready to capitalize on the promise of AI.*

In the Transformation Age, What Should Businesses Prioritize? Digital by Default or Data by Design

by [BEN GRINNELL & DWIGHT SPECHT](#)

The Greek philosopher Heraclitus once asserted that, “Change is the only constant in life.” Yet in this new era of exponential evolution, change is no longer constant. It’s the variable and ever-accelerating force that compels leaders to redirect visions, stay the course, or chart new paths forward. With the rapid pace of change in today’s world, businesses must evolve more efficiently than ever to modernize legacy strategies, embrace new technologies, and empower their people to be trailblazers of transformation.

Is it truly realistic for companies to keep up? What is the secret sauce for capturing innovation and staying cutting-edge while also maintaining the essence and rich heritage of a corporation?

As we explored in our perspective, [“The New Rules of Digital Transformation³,”](#) success stems from the ability to operationalize a do, adapt, and learn mentality to survive disruption in a digital-first world. On the other side of the coin, [“Data as Fuel: Why Your Business Needs Premium⁴”](#) details the importance of data monetization to unlock meaningful insights that inform the direction of the enterprise. Ultimately, this digital renaissance, combined with the mission-critical nature of data, has left many businesses struggling to decide which to prioritize.

In this True North Tech Journal Point-Counterpoint special edition, Ben Grinnell, Managing Director and Global Head of Technology and Digital, and Dwight Specht, Vice President and Technology Lead, debate what the first ingredient of a successful business transformation should be—digital or data?

Is data or digital the foundation of innovation?

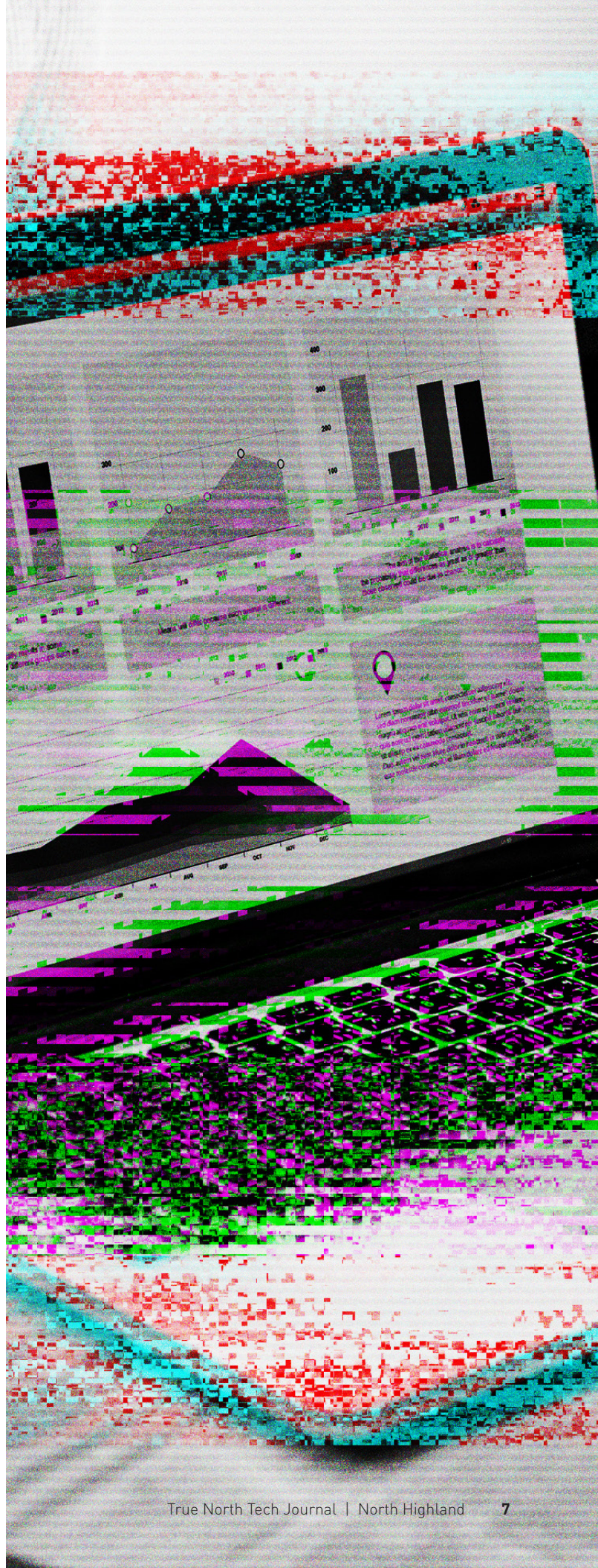
Q: Why do you believe a data-first approach can better position IT leaders for transformation?

[Dwight]: Transformation demands a steady diet of data. It’s entirely dependent on actionable insights to drive tangible, sustainable results. At the inception of any change initiative, it’s imperative to design a data management framework for rapid ideation, identification, and prioritization. This lets you source, extract, and analyze data, and then shepherd the insights through an iterative feedback process. In our [research⁵](#), 96 percent of leaders in analytics, report that data helps to advance organizational priorities. Without data (the foundational mechanism for true transformation), your project will parish.

Q: Keeping in mind the imperatives that Dwight mentioned, why do you think businesses should start with digital?

[Ben]: While data is a stepping-stone to transformation (one can't happen without the other), it's an insufficient part of the equation. For example, digital giants are diverting from the herd because they've mastered the do, adapt, and learn approach. Conversely, companies that were born in the industrial era are lacking sophisticated digital methodologies, so they're at risk of falling behind their digital-era incumbents. Starting with digital first empowers companies with a more comprehensive plan to ignite transformation, whereas starting with data only delays the inevitability of obsolescence.

In other words, digital is creating a colossal shift in the way people work, think, and connect. It allows you to learn, improve, and excel based on a vast array of feedback, including the human-centric variety. In that sense, businesses must reimagine people, process, and technology best practices from a digital-first mindset. But be advised, best practices can no longer be preached. They must be learned through experimentation and iteration. Data is often the enabler of that learning, yet it can't stand on its own.





Q: Let's dig into some examples where these scenarios come into play.

[Ben]: The digital journey should be the driving force of data management maturity. To put that theory into practice, when a leading airline recently engaged our team to redesign its investor website, we leveraged digital ways of working to deliver two versions of the site. These sites went live simultaneously, and randomly segmented users to one site or the other. We provided strategic counsel on feedback techniques and data collection and interpretation strategies. For instance, instead of asking users to rate and compare the sites, we used data-driven insights (e.g. how long they spent on the site, where they abandoned, whether they completed something, whether they browsed what we wanted them to see, etc.) to determine which site met our collective needs. As a result, our client no longer had to guess what customer journey was best—they could trust the data to decide.

[Dwight]: Data is truly the foundation of digital innovation. In my experience, nearly every leading oil and gas conglomerate is “non-digital” and data intensive. When one of the world's leading wind energy producers was struggling to utilize the breadth of data needed for evidence-based decision-making, they engaged our team to construct a data monetization solution capable of consolidating multiple storage and analytics applications, implementing quality assurances, and making real-time adjustments based on evolving business imperatives and market demands⁶. This automated process allowed the global energy leader to refocus its energies on mission-critical initiatives while strengthening the quality and accuracy of insights. Introducing the new tools into the organization empowered it to make trusted decisions at the speed and scale needed to fuel business transformation.

In a nutshell, if your data management process is immature or non-existent, your digital journey will get lost before it gets off the ground.

Conversely, if your business is already on the digital innovation train, yet you're not boosting your analytics capabilities accordingly, you'll resemble a car with three tires on four wheels. You'll make progress, but it will be loud and painful.

Q: What industry trends are driving the need to prioritize digital or data first?

[Dwight]: Many of the home DIY retailers, oil and gas companies, electric utilities, and global manufacturers born of the industrial age already have data assets in place. Their primary objective is to leverage digital transformation to better connect and deliver unparalleled customer experiences. As this digital-first mentality creates an influx in data, they must enhance their analytics systems to withstand the transformative demand.

[Ben]: Digitally native businesses—Facebook, Google, Apple, and Amazon—are defined by subscriber numbers and time, which can be monetized to ad revenue. It's not the intimate knowledge of their customers that made them successful, it was knowing they were there. The subscriber time was the primary asset, not the data.

Q: What are some obstacles to implementation?

[Ben]: Dwight will likely disagree, yet a pure focus on data doesn't solve the problem of iterative delivery and changes in how people work together. While data can enhance decision-making, you must coach people through that transition to ensure lasting success. In that sense, a singular focus on data will impede long-term human connection and adaptation.

[Dwight]: Ben is spot on! With that said, if you decide to change course without decent data capabilities in place, you'll get mired in management opinion. It prevents you from gathering insights objectively.

Q: Are these ingredients separate or intertwined?

[Ben]: Data maturity must be part and parcel of the overall digital strategy. I'd suggest getting the basics right first. If you aren't thinking about a digital transformation, focus on moving to an omnichannel customer experience. Then, focus on nurturing an agile, adaptable culture.

[Dwight]: From a data purist perspective, I'd recommend focusing on refining the collection, management, and analytics of customer transaction data. From there, enrich the data with other interaction points to inform business decision-making.

Digital and Data Must Coincide for Transformation to Survive

When all is said and done, the reality is digital and data are inexorably linked, so IT leaders need both for their business transformation to survive. The technological tides have officially shifted in the wake of transformation, and businesses must be data-driven and digital by default—or risk falling behind. Whether you're born in the industrial age or a rising star of the digitization decade, change is the common denominator where data and digital align. Both are essential ingredients that ensure an organization is poised to pioneer transformations that last a lifetime.

Establishment of the Chief Data Officer and the Need for a Modern Data Platform

by DWIGHT SPECHT, DAN KOPP & TYLER BROWNFIELD

The current climate of radical business transformation has created a heightened appetite for data-driven modernization. The chief data officer (CDO) and others responsible for data management are at the forefront, tasked with unlocking powerful insights that drive strategic direction. It's a daunting role, providing valuable governed data that enables the latest organizational initiatives, whether its supporting the current year's business objectives, enabling data privacy, delivering on the promise of advanced analytics, or providing gold-standard business intelligence reporting on a limited budget with a mixed bag of legacy technologies.

So how can data leaders continue to achieve data-centric business priorities while keeping disruptive technologies and future innovation top of mind? How can they effectively move the needle and the bottom-line to acquire returns that manifest in months, not years?

One key driver is simplification. Leaders must invest in teams, processes, and solutions that streamline functions, remove costly and time-consuming complexity, and provide the latest tool sets to best ingest, store, publish, and analyze complex data sets.

The Rise of the Modern Data Platform

The term "modern data platform" (MDP) has been on the rise over the last decade. With today's proliferation of public cloud vendors, it has become



closely linked with these vendors' ecosystems and their ability to tie together functions both within and outside the data management function. But an MDP doesn't have to encompass one single cloud vendor, a specific architecture, or a particular technology. In reality, it's a modernized symbiotic ecosystem of your enterprise data landscape that allows for many of the data management functions to operate within a unified framework, combining tools for the curation of data with the technology to distribute it to operators, innovators, and applications.

Realizing these gains require more than just technological change; it also requires the modernization of teams, skill sets, and processes. But starting with the MDP is recommended, since the platform will be at the center of the data management function. This means that the MDP drives the skill sets required to operate the data platform as well as forcing the updating of processes and methodologies to run it most efficiently. Therefore, an MDP can be the catalyst for modernizing the entire function of a CDO.

MDPs can accelerate productivity by:

- Standardizing tool sets
- Removing integration points that slow the data supply chain
- Eliminating duplicative identity and access management (IAM)
- Removing barriers between analytics tools and the data that feeds them
- Accelerating the availability of modern machine learning tools to data scientists, shifting the burden of security certification from IT to public cloud vendors
- Reducing vendor contract negotiations and upgrades
- Accelerating IT data delivery
- Simplifying staff skill sets
- Simplifying security audits
- Reducing overall total cost of ownership (TCO)

If MDP isn't currently the cornerstone of your data management strategy, your CDO may focus his or her energies on defense and risk mitigation, versus prioritizing offense and innovation.

Future-Proofing Your Data-Driven Modernization

Often, an organization's data infrastructure resembles a Cuban car. It may have a Chevy chassis, a Ford engine, and a Volvo transmission, and may have been built by knowledgeable people and run well enough, but it is costly and time-consuming to maintain because the parts were never designed to work together.

We see this trend in business because, as we all know, the one constant is change. In the data management space, we've seen evolutions that include data warehousing, Hadoop, SaaS, public cloud-hosted instances, and, recently, the push to serverless cloud infrastructure. This has created the typical disjointed and problematic infrastructure with the challenges of the Cuban car, including higher maintenance, slower delivery times, lack of consistency, and more vulnerabilities.

So how do you future-proof against the constant of change? Public cloud vendors are easing the issues of change by providing complete ecosystems of functionality that are designed to work together, reducing the number of platforms, skill sets, teams, and time needed to achieve the mission.

“by 2022, 90% of corporate strategies will explicitly mention information as a critical enterprise asset....”⁷

In response, Technology and Data officers are working to wrap an MDP strategy around business imperatives and break down the components into achievable steps that fit with the more comprehensive information management strategy. As CDO, you can champion the transformation and technological change by modernizing your teams, skill sets, and processes.



How to Advance Your MDP Strategy within Your Organization

Large projects with nebulous returns are hard to get greenlighted. You can ask your CFO, but he or she will say, “How much does it cost, and what do I get?” Savvy CDOs know that projects that align to the business value and corporate strategy are the secret to stakeholder approval. To be successful in this endeavor, CDOs should have their cloud business case ready by compartmentalizing the different components so they’re ready to break apart and align to business initiatives as they arise, while also being ready to align their data strategy roadmap to the corporate strategy roadmap. This will allow you to move the “below the water” data strategy forward while supporting the “above the water” corporate strategy. The skill and savvy of a good CDO is critical to creating and executing this alignment.

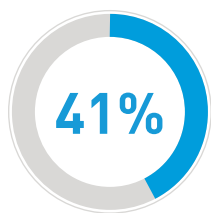
Here are three common enterprise initiatives with significant data needs that can help CDOs advance their data strategy:

- **Digital transformation:** Requires the full suite of your data landscape to achieve the desired digital engagement across all platforms.
- **Customer experience:** Requires the integration and storage of diverse customer touchpoints and blending into processes and applications that create meaningful experiences for your customers.
- **Data privacy compliance (CCPA and GDPR):** Requires data lineage tracking and processes that comply with the latest customer data legislative requirements.

Transforming Technology: Today's Female IT Leader Is Tomorrow's Change Maker

As we explored in our recent perspective [“The Path to Professional Salvation for Modern IT Leaders,”](#) the modern CIO must expand his or her horizons beyond IT expertise in order to compete⁹. Today's leader must engage, facilitate, and propel the organization to digital transformation or risk getting left behind. Yet if women still only represent 16 percent² of those working in IT, would the role of the CIO benefit from greater diversity and stronger female representation?

In recognition of International Women's Day, North Highland hosted “Women in Tech” event, with an inspirational all-female panel discussing the intersection between women in technology and women in leadership. Our own Julia Beaumont moderated the session, which captured the perspectives of women from diverse backgrounds and industries, including Adah Parris (futurist and public speaker), Catherine Luscombe (Dixons Carphone), Christina Scott (News UK), Gen Ashley (TECH(K)NOW Day), and Lina Kehlenbeck (Sainsbury's). These women were brought together by one common passion and purpose: to advance diversity and inclusion in the technology sector. Here are some of the key takeaways and actionable insights that emerged from the discussion.



Shifting from an all-male or all-female team to one split evenly along gender lines could increase revenue by nearly 41 percent.

Why Women Are Hesitant to Explore Roles in IT

According to Adah, the answer lies in an “outward perception of the industry.” From the traditional “old boys club” to the startups with a culture of pingpong tables and foosball, women often struggle to be themselves and become alienated as a result. In Catherine's view, “lack of flexibility” is the main challenge. As an advocate of flexible work schedules, she questioned why many organizations still expect women to work five days a week in the office. Naturally, the need for flexibility is key for many mothers, but “more provisions are made for dogs than for babies,” Gen added.

Christina shared an amusing yet poignant story of a childcare mix-up that resulted in her bringing her eight-year-old son to the office for the day. As a leader, being open and honest about challenges both at work and outside of it empowers others to do the same. All the panelists agreed that organizations need to build a culture where women feel encouraged to bring their best selves to work every day.

Ultimately, organizations that fail to address this challenge risk alienating a vast, diverse pool of potential talent. In an age when personal customer connections are paramount, we need reflections of all customers designing and developing services that are inclusive to all. Research shows that shifting from an all-male or all-female team to one split evenly along gender lines could increase revenue by nearly 41 percent¹⁰.

How Can We Break the Mold?

Lina is a passionate believer that the solution lies with educating and challenging gender stereotypes from a young age. Evidence¹¹ suggests that women ask for pay increases as often as men but are 5 percent less successful. Lina shared that she broke the mold when requesting a pay raise. And Gen challenged the theory that women aren't asking, detailing how she'd successfully coached a young woman to negotiate with confidence.

Breaking the mold often comes down to challenging preconceptions and our own unconscious biases. Prompted by a question from the audience, our panelists discussed various approaches to overcoming unconscious bias. Christina recommended attending training to bolster self-awareness, while Catherine advocated challenging day-to-day language.

Organizations that focus on people, and not solely on systems, by removing job bias from advertising and questioning recruitment processes are often more successful at attracting diverse recruits.

How to Effectively Bridge the Diversity Gap

The action-oriented event focused on activities anyone could implement in their professional and personal lives to drive forward the diversity agenda. Here are some key steps to success:

- **Find a mentor.** For the majority of panelists, mentoring surfaced as the key to diversity advancement. Mentoring is beneficial for mentors and mentees alike. Learning from

others' styles and experiences can help you grow personally and professionally.

- **Celebrate your success.** Identify and cultivate allies in your organization. Find people who can amplify your voice in meetings and support your career goals. If you witness someone being interrupted by a more dominant individual, be their advocate.
- **Be your authentic self.** Take your whole self to work and encourage others to do the same. Make wellness and mental health a priority. Ask questions and be curious about your colleagues.
- **Negotiate with confidence.** Don't be afraid to ask for the pay raise or promotion you feel you deserve. Compile evidence of your performance and merit to reduce the risk of being unfairly challenged.
- **Introduce a diversity target.** Help establish the diversity level you want to achieve within your work teams. Start the dialogue with HR and other colleagues to help propel the team or organization in the right direction. Work with your recruiters to challenge job descriptions and recruitment processes. Attend unconscious bias training or introduce an awareness campaign at your organization.
- **Forge partnerships.** Work with organizations offering "back to work" assistance or set up your own group to help attract women who have been on extended leave.

Most important, don't wait for someone else to take a stand for society to change or for another organization to take charge. Boldly lead from the front and be proud of the path you pave.

Digital IT Operations: Keeping Pace with Service Introduction

by TOM MATTHEWS

As discussed in our perspective on Digital Transformation¹², the appetite for more iterative, “do-adapt-learn” ways of working is growing. Our research shows that 74 percent of organizations report that the pace of digital tool and application development has increased in the past three years, requiring an adaptive Information Technology (IT) function that can keep up.

Across the business and IT landscape we’re seeing change and convergence, with an increasing volume of change delivered via Agile/DevOps/continuous delivery approaches and standing product teams rather than monolithic projects and programs.

As a result, live service must absorb unprecedented levels of change, but speed-to-market demands need to be balanced against the quality of ongoing live service provision. Ongoing change and live service are increasingly intertwined with the traditional boundaries of shape/build/run converging. This requires a delicate balance. If the balance is wrong, it means that end users and customers suffer through poor service quality or must wait longer for enhancements and changes due to excessive governance hoops.

The Importance of “Building to Change”

It’s never been more important that IT services be flexible and built to absorb change. In addition, there are fewer instances of “standing up of projects, delivering stuff, then disbanding.” This means there’s a real opportunity to build ongoing relationships between standing teams, providing service management and operations with the opportunity to be a major driving factor in the ongoing release of value and functionality to users and customers.

Simultaneously, IT services delivered to the business are becoming increasingly complex. They’re often composed of multiple technologies hosted both in the cloud and on premise, require management of multiple third-party and vendor relationships, and blur the lines between service and engineering. Success in this landscape requires clear product and service ownership, accountability, a culture of collaboration, and a “one-team” mentality.

To address these imperatives Service Introduction, predicated on a modern approach to IT Service Design & Transition, ensures that appropriate levels of service are maintained as new changes are delivered. It strikes the right balance between speed and stability, builds collaboration through engagement, and ensures the appropriate levels of operability are considered early in the product/project life cycle.

High Stakes for Service Introduction

In this ever evolving and complex world, the value of a strong Service Introduction capability is more important than ever before, balancing speed to market and ongoing provision of live services to users and customers. Strong Service Introduction embodies the following characteristics:

- Showing up early in the product and project lifecycle to highlight and help build in live service considerations and operability features
- Focusing on the end-to-end service to users and customers, rather than on individual technologies and teams
- Pragmatism, with every operational feature having a clear business benefit

- Building consensus across multiple teams to balance time, cost, and quality considerations
- Being an enabler of sustainable change, not a barrier
- Driving clarity of Total Cost of Ownership (TCO) and value

Over the last five years, we have been working with a major UK retailer to set-up, embed, and run its 20-person Service Introduction function. We've successfully introduced over 100 projects and programs into the business, from small changes and enhancements to a large-scale ERP implementation. At the same time, we've also evolved our approach to work across multiple delivery methodologies including Waterfall, Agile, and DevOps. Benefits of our approach have included a clear view of total cost of ownership (TCO) and business value for every new or changed service, collective focus on risk and value when approaching decisions, and pragmatic decision-making with the interest of the user and customer at the heart.

Your Next Steps

Service Introduction centered on the interests of end users and customers focuses on the following actionable principles:

- **Early Engagement:** Bring IT operations and service management stakeholders into the product and project lifecycle early on. Incentivize stakeholders to spend time early in the lifecycle by assigning utilization targets.
- **Pragmatism and Holistic Decision Making:** Take pragmatic decisions that balance speed to market, time, and cost with ongoing provision of the live product or service. This way the end user or customer always wins. To enable this, ensure that product and service owners have end-to-end accountability from ideation to ongoing service provision.
- **Enable, Don't Block:** Prioritize flexibility and be clear on the value operational features will deliver for the end user or customer. Then, proactively support the delivery of these features.
- **Embed and Embrace:** Embed Service Introduction practices into your day-to-day ways of working (building operational features into your product backlogs and user stories, attendance at daily stand-ups, retrospectives, etc.).

Service Introduction ensures that all new IT products and services are delivered with a long-term orientation. By bringing operability and TCO ownership considerations to the forefront, it empowers businesses to maintain appropriate levels of service as new changes are delivered—striking the ideal balance between speed and stability.

A North Highland Customer Story: Driving Monetization through Transformation

OVERVIEW

A global leader in the renewable energy sector needed an enterprise analytics architecture to unite data from 300-plus systems and empower evidence-based decision-making. The organization selected North Highland as its strategic partner in this endeavor given its expertise in the industry and with data and analytics. Ultimately, North Highland helped the electric utilities provider implement a first-of-its-kind, cross-functional visualization strategy that made data accessible for real-time production. Serving as a critical extension of the client team, North Highland designed the tools needed to bolster productivity, revolutionize efficiency, and improve profitability.

CLIENT SITUATION

One of the world's leading wind energy producers was struggling to utilize the breadth of data needed for evidence-based, strategic decision-making. Data-driven decisions are made by the wind producer's global infrastructure every ten minutes. And with more than 300 systems, homegrown databases, an ERP, and real-time weather and market feeds, the organization spent an exorbitant amount of time manually acquiring, crunching, and improving data before use. The data from the company's data historian (PI System) couldn't be accessed without substantial additional customization expense. Additionally, the company wasn't clear on which datasets to combine to gather the insight needed to be successful.

Recognizing the need to develop a new approach that would enable the culling of data into ROI-driving production decisions, the energy company set out to modernize its infrastructure. Ultimately, the organization needed an automated data analytics platform to 1) collect, digest, and measure insights, 2) ensure data quality, accuracy, availability, and accessibility, 3) define data governance standards, and 4) fuel operational performance.

OUR APPROACH

Given North Highland's strong track record of success in the utilities sector, the global energy leader engaged the firm to develop a microservices-based data analytics system to unlock its PI System data and automate the acquisition of real-time operational insights. This approach would empower the energy leader to monetize its data and gain a competitive advantage in production.

North Highland started by creating a solution that pooled data from over 300 systems (including PI System) in a data lake. Using Microsoft Azure Service Fabric, Gen2 Data Lake, and SQL Data Warehouse, the system moves 2 million individual records every 15 minutes while performing 2 million calculations on 80 million individual records every three seconds. The system was designed to successfully orchestrate and perform the extraction, loading, transformation, and auditing processes (ETLA). As part of this, North Highland designated bots to coordinate the activities of each ETLA bot, which were responsible for powering 7,100 wind turbines on two continents.

Armed with this strategy, the energy leader has the power to make near-immediate production adjustments to increase revenue. When the in-flight project reaches completion, North Highland will design a self-auditing bot to ensure superior performance automation, create administrative interfaces that generate real-time scorecards to measure system operations, and move the system into production.

VALUE DELIVERED

North Highland constructed a data monetization solution capable of consolidating multiple storage and analytics applications, implementing quality assurances, and making real-time adjustments based on evolving business imperatives and market demands. This automated process allowed the client to refocus its energies on mission-critical initiatives while strengthening the quality and accuracy of insights. Introducing the new tools into the organization empowered it to make trusted decisions at the speed and scale needed to fuel business transformation.



The North Highland approach won the day. Our work enabled the energy company to monetize its data, shifting production across assets based on the real-time information we unlocked.”

– **TERI MENDELOVITZ**, VICE PRESIDENT,
GLOBAL ENERGY & UTILITIES LEAD,
NORTH HIGHLAND

A North Highland Customer Story: Digital Transformation Unites People, Process, and Technology

OVERVIEW

North Highland partnered with a government organization to design and deploy a holistic change management approach to maximize the value of a new technology and device rollout initiative. Our approach, rooted in change management and behavioral change best practices, helped functions across the department unlock the differentiating potential of technology by powering not only a change in technology, but also a transformation in ways of working.

CLIENT SITUATION

Our client, a government entity, had launched a \$150M technology transformation program to modernize hardware, software, and ways of working. The program included the deployment of new Windows 10 desktops and laptops, smartphones, and the Office 365 (O365) suite of Microsoft applications. The program had a global reach, touching 17,000 staff members across over 280 locations around the world. However, the program was struggling to prove how it was transforming ways of working as opposed to simply rolling out new technology—an essential requirement per government standards. The client engaged North Highland as a strategic change partner to shape a change management strategy that would help the program fully unlock the benefits of new ways of working surrounding the technology.

OUR APPROACH

North Highland formed a blended team of consultants with expertise in change management, behavioral science, and program management. The diverse team helped to ensure that all transformation activity accomplished its objective to change working habits. Our multi-disciplinary skillsets enabled us to deploy a program that would maximize user experience, alignment, and buy-in around the new program.

To design the program, North Highland worked with the client to understand local nuances and challenges across the office's 280 locations. This holistic approach ensured the final rollout processes could flex to be successful at the local level. Our user-based focus identified the triggers and barriers to changing behavior, as well as the behavioral biases that had been influencing decision-making. Working hand-in-hand with the client team, we then defined a clear set of target behaviors and supporting micro-behaviors that set the bar for success. The new practices enabled the team to design and implement precise and effective behavioral interventions to shift old ways of working.

North Highland also facilitated collaborative workshops to help disparate workstreams drive towards common goals. We accomplished this

by developing a rigorous plan and supporting governance structure to embed sustainable ways of working in an environment where communications, learning and development, and engagement teams had been operating in silos.

Drawing upon behavioral science and the nudge theory, our behavioral change experts designed and delivered a campaign to support the deployment of new technology, ensuring that the client will gain real value from its investment in new devices and technologies, including O365. Specifically, we developed creative campaigns for various working scenarios, incorporating competitions and challenges as an incentive for change. North Highland also embedded consistent language and visual cues into deployment messaging to create familiarity with the initiative across the organization.

VALUE DELIVERED

Our approach, rooted in change management and behavioral change best practices, gave way to a scalable and flexible deployment approach that improved user engagement and attitudes towards technology by 15 percent. The client also realized a 23 percent increase in the number of staff bringing laptops to meetings and a 50 percent increase in the number taking digital notes.

In addition to quantifiable return, our work helped to bridge the gaps from entrenched silos between IT and the business, transforming the potential of technology by driving new ways of working. We accomplished this goal through a strategic and intentional behavioral change campaign. By navigating the challenges associated with a siloed culture, our team encouraged and enabled staff—across several functional groups—to work more effectively with their new technologies.

QUIZ: FIVE QUESTIONS TO DETERMINE IF YOUR COMPANY IS AI-READY

by [JONI ROYLANCE](#)

Artificial Intelligence (AI) will impact the way that people work unlike any technology implementation in the past. No matter the scale of AI's impact, its successful implementation has as much to do with technology as it does with culture and organizational readiness. According to our research¹³, only 27 percent of leaders believe their employees have the skills to apply AI to meet intended business objectives.

Is your organization prepared to capitalize on the promise of AI by optimizing a hybrid workforce of human and robot colleagues?



Take the quiz at:
go.northhighland.com/ai-quiz

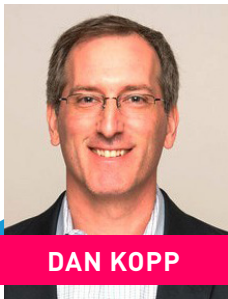
About the Authors



Ben is a Managing Director and Global Technology and Digital Service Line Lead at North Highland. His career has taken him from Programmer to Architect to Program Manager to CIO. He has spent the last 15 years advising the C-Suite on the technology operating and sourcing model and how to transform their technology functions to accelerate robust delivery without building technical debt. Ben is a regular conference speaker and expert panelist on DevOps and is currently helping several large enterprises with their digital transformation journeys.



Dwight is the Global Lead for the Data & Analytics and Technology Capabilities at North Highland. He focuses on delivering customer and marketing intelligence solutions that help clients more closely connect with, drive higher quality experiences for, and predict the behavior of, their customers. Passionate about the business value of advanced analytics and BI technologies, the data and analytics team is highly experienced at data strategy, governance, master data management, business intelligence deployment, visualization and predictive modeling.



Dan is Associate Vice President of the Data & Analytics Capability at North Highland. He has 16 years of experience in Information Management strategy and delivery. Specific areas of expertise include Engagement Management, Project Delivery, and Technical Leadership for the areas of Data Warehousing, Business Intelligence, Information Management, System Integrations, and Data Architecture.



Tyler is a Senior Consultant with 9 years of experience in the areas of Information Strategy, Data Engineering, Data Visualization. That experience includes working with both IT and business partners to tackle their most pressing data & analytics problems, such as: migrating to the public cloud, operationalizing analytics, and implementing standards around data governance.



TOM MATTHEWS

Tom is a Principal Consultant in North Highland's Global Technology Capability. He leads North Highland's IT Service Introduction offering and has spent the last 9 years working on large-scale IT programs, with a real passion for working across the IT Operations, Delivery and Business functions to help land IT change smoothly into service.



JONI ROYLANCE

Joni is a Master Practitioner with North Highland. She brings the hearts and humans perspective and has over ten years' experience leading all things people-focused including Experience Design, Culture Definition, Talent Management, and Organizational Design. She is currently focused on exploring the relationships between humans and emerging technology and defining the Future of Work.

ABOUT OUR TECHNOLOGY & DIGITAL SERVICES

North Highland helps organizations improve performance and drive growth by aligning technology initiatives with strategy and culture. We do this by partnering with clients to embed digital solutions enterprise-wide, from solidifying a modernized, evolving IT capability, to designing highly custom applications for workforce enablement and customer engagement. Our solutions help business and IT leaders make informed decisions, foster internal collaboration, and apply cognitive technologies to solve challenges beyond human scale.

ABOUT NORTH HIGHLAND

North Highland is a global management consulting firm known for helping clients solve their most complex challenges related to customer experience, transformation, and technology and digital. We add value and support our clients across the full spectrum of consulting, from strategy through delivery. North Highland is an employee-owned firm, headquartered in Atlanta, Georgia, with more than 3,000 consultants worldwide and 60+ offices around the globe. The firm is a member of Cordence Worldwide (www.cordenceworldwide.com), a global management consulting alliance. For more information, visit northhighland.com and connect with us on [LinkedIn](#), [Twitter](#), and [Facebook](#).

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- 5 "[Taking the Lead with Analytics](#)," North Highland
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