DIGITAL EDGE

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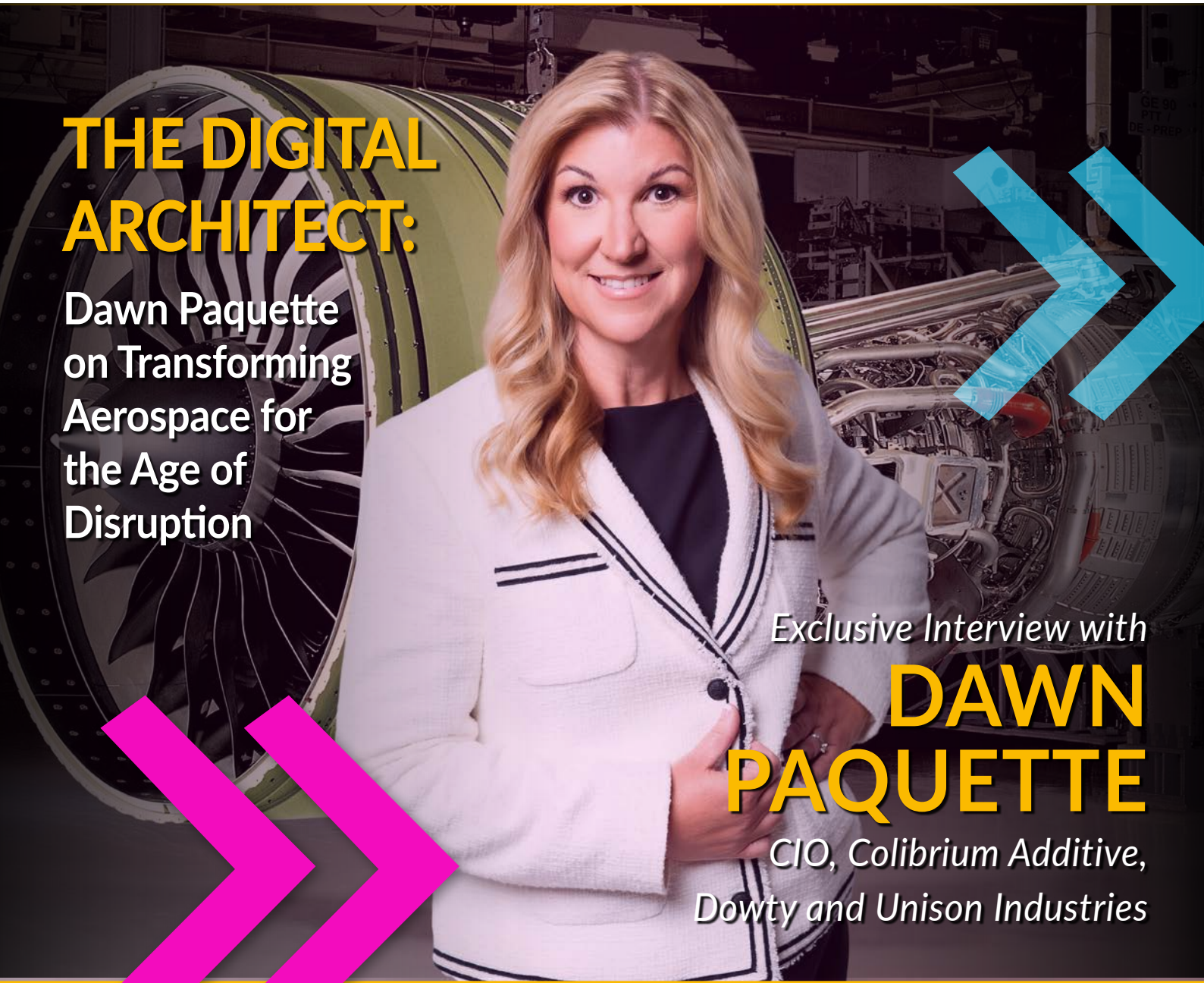

THE DIGITAL ARCHITECT:

Dawn Paquette on Transforming Aerospace for the Age of Disruption

Exclusive Interview with

DAWN PAQUETTE

CIO, Colibrium Additive, Dowty and Unison Industries

The Digital Architect:

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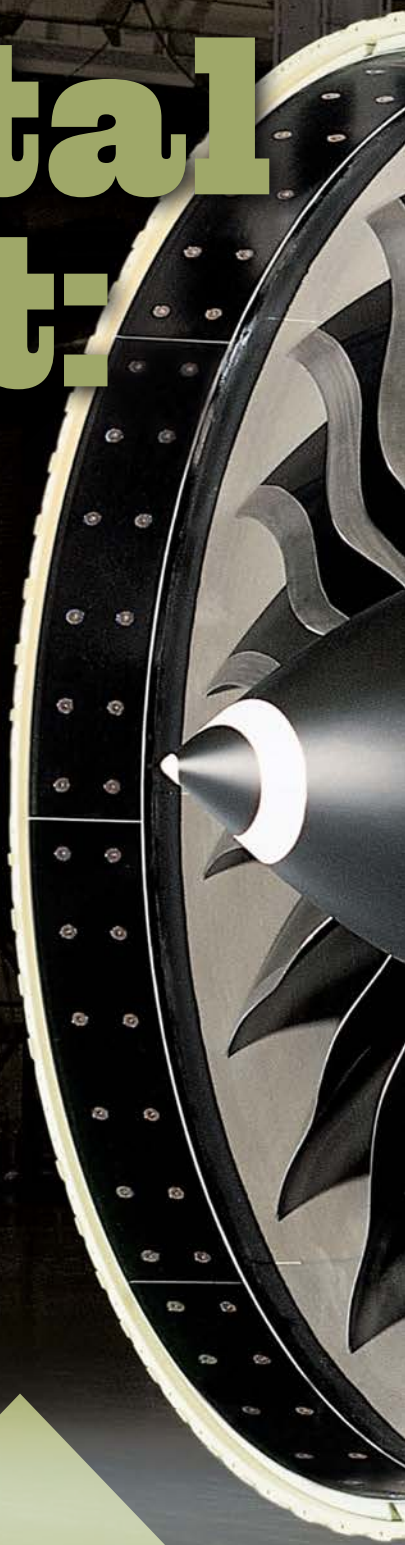

DAWN PAQUETTE

CIO, Colibrium Additive, Dowty and Unison Industries

In the gleaming corridors of GE Aerospace, where the hum of innovation meets the precision of engineering, Dawn Paquette orchestrates a transformation that extends far beyond traditional corporate technology boundaries. As a digital leadership executive at one of the world's most influential aerospace companies, Paquette isn't merely implementing new systems—she's reimagining how an industrial giant navigates an increasingly volatile world.

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From her office overlooking the sprawling operations that power fleets for customers, and global partners, Paquette speaks with the measured confidence of someone who has witnessed the seismic shifts reshaping modern enterprise firsthand. Her perspective on digital transformation carries the weight of experience earned through decades of technological evolution, yet her vision remains firmly fixed on a future where artificial intelligence and human ingenuity converge to create unprecedented operational resilience.

Digital Edge: GE Aerospace plays a central role in powering and servicing fleets for its customers. How are digital systems evolving within the business?

Dawn Paquette: I believe one of the most critical components of any digital transformation strategy is understanding the goal. Without clear goals, prioritizing becomes impossible, budgets overrun, and deadlines slip endlessly. In 2025, one of my primary goals is building intelligence and resilience into the enterprise. In the past, companies could strategically ride out turbulence, rely on the 80/20 rule, and manage occasional disruptions as "exceptions." However, the rate of disruptions worldwide is accelerating. Major disruptions have increased over 400% in just the last five years. Additional research shows that 76% of companies experienced significant business disruption in 2024. With no sign that disruption rates will diminish, organizations must invest in AI and digital solutions to sense disruptions early and respond quickly with mitigating steps, corrective actions, and cross-enterprise communication and collaboration. With resilience as the goal, leaders face another paradigm shift towards realization. You can't achieve organizational resilience in functional silos. Information must flow rapidly across the enterprise to create true resilience. For example, the Planning team estimates demand by taking inputs from suppliers' availability, production capacity, quality yields, transportation cycle times, and to develop initial execution plans for purchasing, production, and transportation. These initial plans become obsolete the moment a truck blows a tire, a bridge collapses, a social media video shifts demand to another region, or suppliers go on strike. Getting back on track and recovering from disruption requires seamless, rapid collaboration across the entire enterprise.

Here's the critical point: these adjustments happen daily—often multiple times a day—and companies are still doing them manually. Technology leaders are realizing we can't do it alone or with just our existing organizations and resources. Digital transformation requires end-to-end alignment and orchestration, which calls for collaboration with technology partners who can support modern and comprehensive solutions, such as enterprise platforms like Oracle's Fusion Applications. Relationships with suppliers shift from vendors to strategic partnerships with organizations like Genpact.

Digital Edge: Digital transformation means different things to different people. What are your thoughts on this concept?

Paquette: Digital transformation means taking the current and moving it to the "future of...". It's looking for the foundation of what the business outcomes and future need to be to thrive—in terms of environment, systems, technology partners, security, customer experience, gaining productivity, improving efficiencies, processes, and so forth. It's about taking what you currently have, enhancing it, and integrating it to fundamentally change how you operate today.

What worked then may not work now. Industries, customers, technology, global interactions—they're constantly evolving and changing, and you need to keep up. The most difficult part of transforming, ironically enough, isn't the technology—it's rethinking current processes and the culture of the business. In collaboration with business functions, you're analyzing, re-analyzing, and redesigning how operations run today and how technology gets leveraged. Technology changes and additions are expensive. The agility isn't there if the business is trying to hold onto the past. I look at this two ways: upgrade for IT costs and do what we've always done but in a supported platform—"lift and shift"—or have a "vanilla party" where you fit into the capability and look for opportunities to change how the business operates for more cost-effective and transformational outcomes.

Traditionally speaking, most companies use the highest-paid person for decisions or make cost-driven decisions instead of looking at what's actually needed. Too often, it's current state versus future state and just carrying it forward, which brings the old garbage with it and increases costs. Initiatives fail to deliver the business case 70% of the time. Of the remaining 30% that are delivered, 20% die on the vine, and the remaining 10% don't realize the value. I lead my business partners and executive and senior leadership teams to look to the future and drive ROI.

I believe AI is going to transform digital transformation! Many companies have been on their digital transformation journeys for quite some time, and by utilizing agentic AI, there's an opportunity to reduce time, cost, and better leverage talent. Costs are unknown in the vast world of AI, and leaders are looking down and looking out to partners to help implement AI into their organizations. Knowing how to plug them back into BPOs and SOPs for the folks on the shop floor and how to integrate them back is key.

This is where you need to leave the "vanilla party" I referenced before and look forward instead of bringing the past with you. It's not only transforming the business but also yourself! This is the biggest change in my career—another industrial revolution with a massive increase in productivity. Think of it as the internet e-business rage of the 80s and 90s. In 18 months, if you don't have agents and are using them to delegate to, IT leaders will be out of a job.

We are well-positioned in my areas with many systems in place, including ERP with Oracle Fusion, supported by vendor partnerships, including those with organizations like Genpact to help us drive operational excellence and innovation. AI has been around for years and is embedded throughout my businesses, systems, and organizations.

Since 2018, predictive AI has guided us on faster fixes, and now agentic AI can analyze history and manuals to unlock next-level productivity. The competitive advantage lies in using AI agents to boost productivity across your workforce—delivering better, faster, and cheaper results. Selecting the right products makes all the difference. Selecting the right systems, such as Fusion ERP and tools like Fusion Agent Studio, is critical to achieving process excellence and cost savings. **By leveraging advanced ERP solutions in my space, we've streamlined operations without requiring significant additional investments.** This allows us to orchestrate processes across environments by pulling data from other systems and landscapes. We don't need to develop additional agents or bring in other solutions—which drives up costs—when you choose the right systems from the start.

Digital Edge: In the P&Ls you support, how are you leveraging next-generation technologies to meet the demands of security, reliability, and performance?

Paquette: Every successful digital transformation starts with clarity of purpose. If the destination isn't clear, it becomes impossible to prioritize, and even the best resourced efforts risk falling behind - budget overruns, timeline slips, and missed outcomes become inevitable.

For us, the focus in 2025 is building intelligence and resilience into the core of our enterprise. That's not a theoretical ambition; it's a direct response to what we're seeing in the market. Over the past five years, the frequency and scale of disruptions have increased exponentially. Research shows that over three-quarters of companies experienced major disruption in 2024 alone. And there's no indication that the pace is slowing.

Historically, organizations could absorb occasional shocks by leaning on contingency plans and experience. That approach no longer holds. Today, disruptions are constant. The only viable strategy is to embed agility into how we operate, from demand planning to execution to recovery.

Resilience, however, can't be achieved in silos. It requires fluid data flow and decision making across the enterprise. Take supply chain planning, for example. A forecast built on supplier capacity, transit times, and yield assumptions can unravel instantly - a mechanical failure, a labor strike, a viral trend on social media shifting consumer behavior. What matters is how quickly and collaboratively the organization adjusts course.

And those pivots aren't occasional, they're daily. Sometimes hourly. Yet many companies are still managing them manually, with fragmented tools and disconnected teams. That's the shift we've embraced. Resilience at scale requires orchestration - true end-to-end connectivity across systems, people, and processes. That's why we choose organizations like Genpact and Oracle, when we need not just a technology provider, but a strategic partner. We need applications that give us the modern architecture and embedded intelligence to operate with precision, flexibility, and speed. When the goal is real-time enterprise responsiveness, the foundation has to be built on platforms capable of delivering it.

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By leveraging modern infrastructure and applications, we're reducing reliance on traditional data leaks and enabling AI-driven insights directly from data collected in context, bringing intelligence into the 'action' layer of the business cloud infrastructure, through systems like Fusion. Our cloud infrastructure is designed for enterprise-grade security, high availability, and performance, with features like zero-trust architecture, encryption, and dedicated zones for sensitive workloads. Uptime is critical for our business operations, especially when shop floors run multiple shifts. By having autonomous databases, the systems take this further by using AI to self-secure, self-heal, and self-optimize. This frees our technology team to focus resources on what matters most to the business and deliver outcomes that align with functional priorities.

Digital Edge: Additive manufacturing is a game-changer. How is GE Aerospace pushing the boundaries with 3D metal printing, and what digital tools are driving efficiency and innovation?

Paquette: Additive manufacturing is changing the game, but unlocking its full value requires more than just new machines. It takes a coordinated digital strategy that connects design, production, and supply chain into one intelligent system. At GE Aerospace, that's exactly what we're building.

We're moving our Additive business onto more and more Cloud applications, with systems such as Oracle Fusion, which bring embedded AI and automation directly into day-to-day operations. These aren't bolt-on features, they're embedded at the transaction level, enabling us to shift from reactive workflows to data-driven, self-correcting processes. When paired with IoT insights from our machines, we're laying the foundation for true autonomy in manufacturing and logistics.

As someone who's led complex technology transformations for over two decades, I've learned that real progress comes from execution, not just vision. My focus has always been on building systems that work in the real world: scalable, resilient, and tied to measurable outcomes. The work we're doing in Additive is a powerful example of that, bringing together cutting-edge technology with disciplined operational leadership.

It's one thing to talk about digital transformation. It's another to deliver it. My team and I are doing the latter.

Digital Edge: Data is a key enabler of operational excellence. How are you unlocking value from GE Aerospace's vast data infrastructure across engineering and supply chains?

Paquette: In my domain we've moved away from the idea that all data needs to live in a centralized lake before it can drive value. That model slows us down and adds unnecessary complexity. Instead, we're focused on keeping data where it originates, closer to the point of action and using modern applications with embedded intelligence to pull the right information in real time, when and where it's needed.

UNISON

a GE Aerospace company

What excites me most is the shift from insight to action. It's not just about understanding what's happening, it's about designing systems that respond automatically, adjust proactively, and deliver meaningful results. That's where we're heading across engineering and supply chain, using our data to power smarter, faster decisions at every level of the business.

Digital Edge: **What role are AI and machine learning playing in predictive maintenance, fleet analytics, or manufacturing?**

Paquette: Data has been used to predict and prevent equipment issues for over a decade. That foundation in predictive maintenance and fleet analytics is strong, but now we're pushing into a new frontier. Advances in AI and automation are enabling systems that don't just forecast problems, they initiate the response.

Embedded AI capabilities within modern applications are helping us extend smart manufacturing and maintenance operations, including parts planning, inventory management, technician training, and product lifecycle management.

We're developing capabilities where equipment can identify a maintenance need, check inventory, place an order, and even trigger production of specialized parts through additive manufacturing, all without human intervention. On top of that, technicians can be guided through the repair process using digital tools like augmented reality and natural language interaction.

This shift, from reactive to autonomous, is fundamentally changing how we approach maintenance and manufacturing. It's not just about saving time; it's about building systems that continuously improve, adapt, and drive value at every step.

Digital Edge: **How are cloud technologies transforming the way you build, support and scale digital ecosystems?**

Paquette: Cloud is the foundation that makes all this possible and achievable in near real time. It's no longer about platform upgrades, moving systems off-prem, it's about building a flexible, scalable ecosystem where data, applications, and intelligence can work together in real time.

What's most important for us is the ability to integrate quickly, adapt to change, and deliver consistent experiences across the enterprise. Cloud gives us that agility. It allows us to scale what works, retire what doesn't, and focus our resources on where we can deliver the most value. It's how we're able to support a truly modern digital ecosystem, not just within Additive, but as part of the larger enterprise evolution.

Digital Edge: What excites you most about the future of GE Aerospace—and your own role in shaping its next chapter through technology and innovation?

Paquette: What excites me most is how GE Aerospace is positioned to lead in this next chapter, where technology and innovation are becoming inseparable from how we operate. Our Lean-first culture is what makes true digital transformation possible. It's not just about adopting new tools. It's about how we work, how we problem-solve, and how we empower employees at every level to shape how we use technology. Our approach with FLIGHT DECK, GE Aerospace's proprietary Lean operating model, for example, allows us to move quickly and deliberately, keeping the focus on customer value while letting AI agents take on the repetitive or non-value-added tasks.

Studies have shown that companies with strong Lean foundations achieve far better results with digital investments, and that rings true here. What energizes me is that we are not implementing technology for its own sake. We are aligning proven operational practices with advanced digital capabilities in a way that creates real synergy and impact.

I believe we are at a unique inflection point. The convergence of AI, cloud computing, IoT, and advanced manufacturing is not just improving our processes, it is redefining what is possible for industrial enterprises. We are shifting from reactive to predictive, from manual to autonomous, and from siloed systems to integrated ones. GE Aerospace has the culture, the talent, and the vision to lead this transformation.

The future I envision is one where our systems do more than support our operations. They anticipate challenges before they occur, enhance the way we work, and allow our people to focus their energy on the activities that create the most value. That is the evolution of digital transformation and the future being built.

As our conversation draws to a close, Paquette's enthusiasm for the road ahead is unmistakable. In her vision, the aerospace industry stands on the cusp of a transformation as significant as the shift from propeller to jet engines. The difference this time is that the revolution isn't just mechanical—it's cognitive, predictive, and profoundly collaborative. Through her leadership, Paquette is writing the playbook for how traditional industrial giants can not only survive but thrive amid exponential technological change. Her approach—rooted in operational excellence, powered by cutting-edge technology, and driven by relentless focus on customer value—provides a compelling blueprint for enterprise transformation.

In a world where disruption has become the norm, leaders like Dawn Paquette prove that resilience isn't just about adapting to change—it's about building systems smart enough to anticipate it, agile enough to respond to it, and robust enough to transform it into competitive advantage. The future of aerospace rests in very capable hands.

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