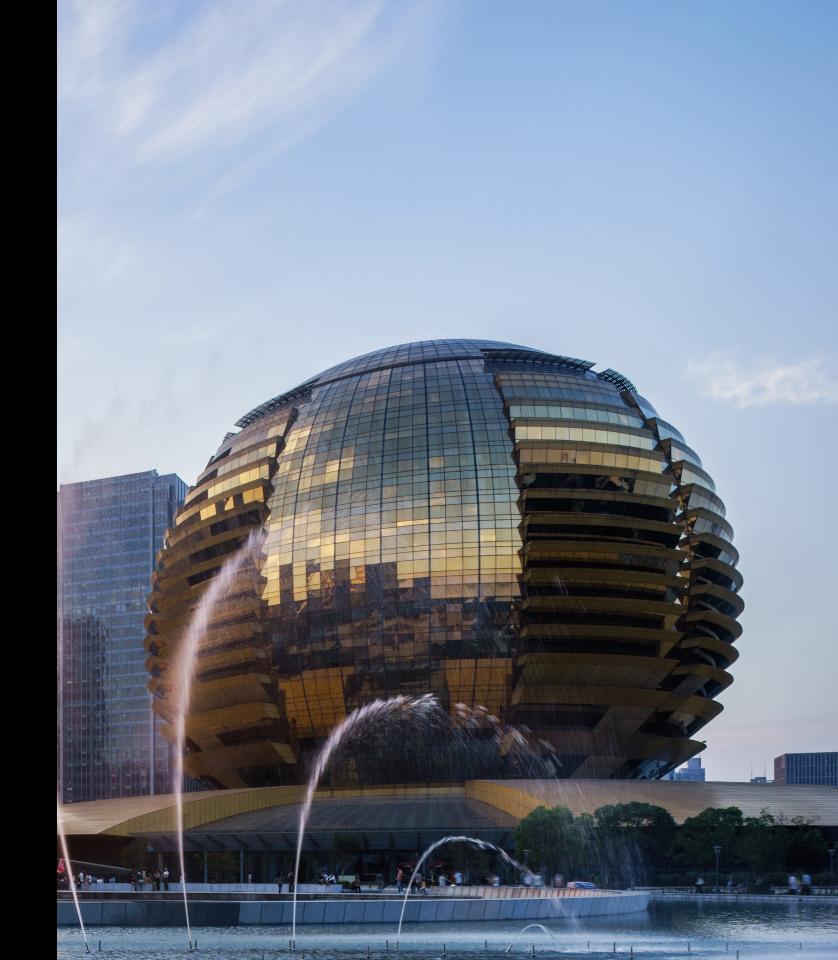
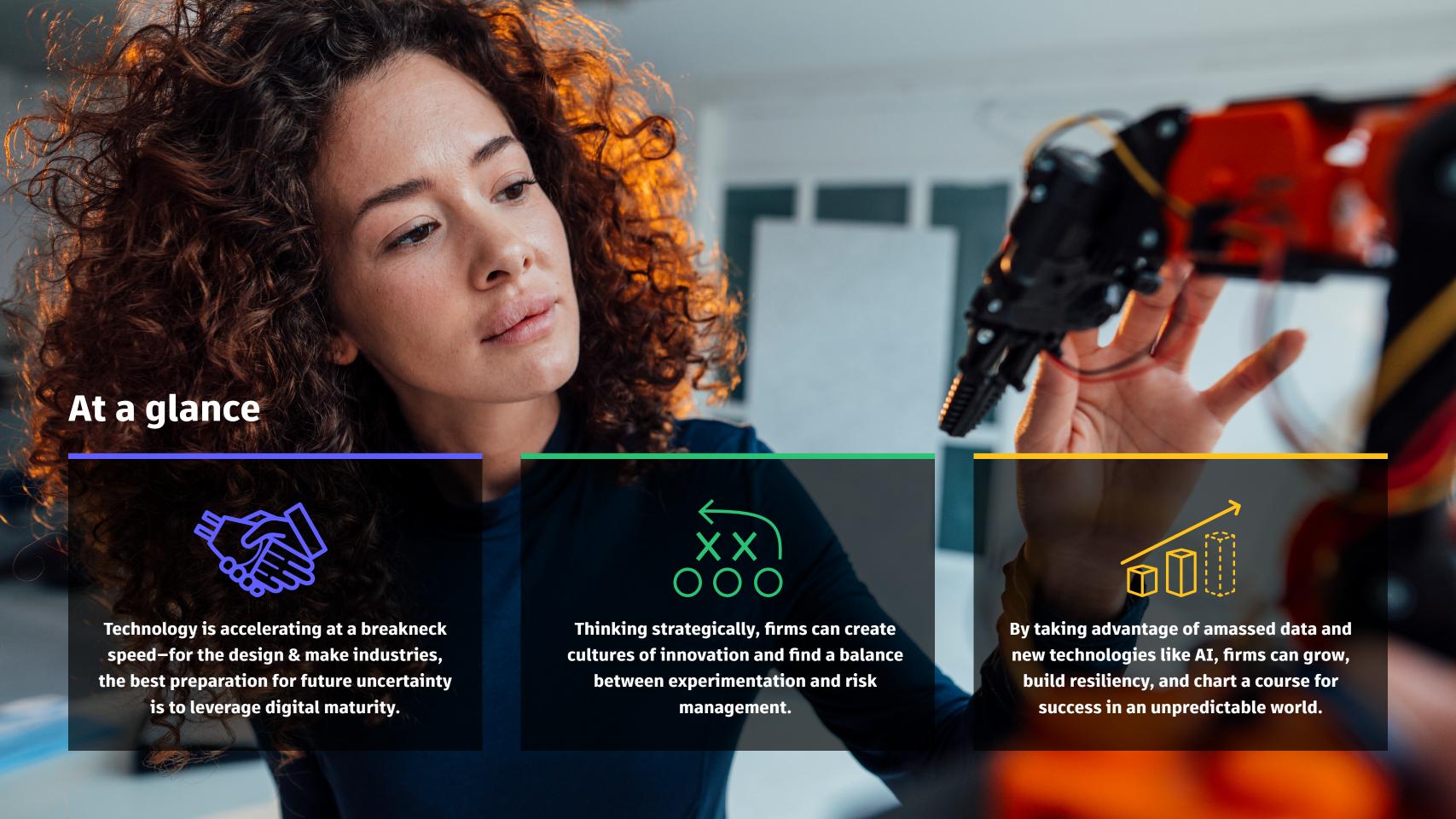


AUTODESK

Future-Proofing Business Strategies from Jonathan Brill

By Sarah Jones







The Industrial Revolution took <u>80 years</u>. The Digital Revolution took <u>46 years</u>. Today, the speed of artificial intelligence (AI) computing power doubles every <u>three months</u>. Take this unprecedented pace of technology, add financial shocks, supply chain disruptions, natural disasters, cyber threats, and a pandemic into the mix, and you have a perfect storm of business disruption.

What will it take for firms to adapt, survive, and even thrive in the face of accelerating change in unfamiliar territory? Success starts with digital maturity.

When surveyed for the Autodesk 2023 State of Design & Make global report, industry leaders shared the most pressing drivers of change shaping their business decisions. Not surprisingly, digital transformation topped the list, with 79% of respondents stating that the future growth of their company will depend on digital tools.

Fortunately for many in design & make industries, the "architect way" of problem-solving—taking both the top-

level view and zooming in to the details that support success—is an advantage when navigating volatile times.

But what if you reframed volatility as an opportunity for the prepared?

That's the perspective of Jonathan Brill, a futurist who advises start-ups, the Fortune 50, and the United States Secret Service on ways to understand and take advantage of an increasingly uncertain world.

In his book, Rogue Waves: Future-Proof Your Business to Survive and Profit from Radical Change, Brill describes how technological, social, and economic trends can be like rogue waves that develop in the ocean when individually manageable waves of disruption collide, creating overwhelming walls of water that can sink even the largest ships in seconds.

These rogue waves are hitting businesses harder, faster, and more often—but with the right processes in place, you can consistently turn these moments of radical change to your advantage.

# Industry leaders are observing the elements of a design & make rogue wave

Rapid change

**72%** 

report that the workforce changed more in the past three years than in the previous 25

#### **Accelerating uncertainty**

79%

see a future that is increasingly unpredictable

#### **New priorities**

94%

anticipate that the need for sustainability will change how they do business

# Looking at work with new eyes

56%

of industry leaders see the need for a new, broader, and more dynamic skill set

# Approach new challenges like an architect

"As technology reshapes industries, your architectural training is an untapped superpower," Brill says. "Your ability to zoom out and zoom in is desperately needed."

While AI absorbs data, "architects uniquely synthesize complexity and render insights into human-centric solutions," he explains. "As machines take over discrete tasks, this contextual thinking becomes even more valuable."

The key, Brill adds, is to find new applications for your core strengths instead of trying to change architecture's essence. "Use your systems thinking to derive insights, translate vision into reality, and extend your profession into new domains."

He urges leaders to expand their architectural mindset beyond traditional building design. "Pilot services that apply your spatial and coordination skills in new markets," he says. "Create experiences blending physical and digital. Help organizations of all kinds adapt."

The accelerating pace of change rewards those who grasp new connections and implications. "You already have this superpower," Brill says. "Augment it with technology, then offer it at scale as a coveted service. Architecture has a moment to expand its relevance by leveraging its native strengths. The future belongs to those who understand the whole system, then incrementally improve it."

# Ridge

#### **Culture in flux**

More than 50% of surveyed business leaders said they changed how their companies worked day-to-day and managed their workforce

### Cultivate the ABCs: Awareness, Behavior, Culture

Back Wall

Firms need to be thinking systematically—not just about what's there, but what's missing. In his book, *Rogue Waves*, Brill outlines his ABCs that will help firms thrive in uncertainty:

Awareness: Vigilantly scan the horizon for clues: emerging innovations and economic and societal shifts that could collide. Continually monitor your environment to reveal blind spots.

Behaviors: Nimbly act on early signals; invest in skills to spot changes early and quickly capitalize on them. Incorporate experimentation and management rigor into all processes.

Culture: Instill a culture of curiosity, experimentation, and learning from failure. Flatten hierarchies so insights can emerge from anywhere.

That culture piece is critical. Firms must become comfortable with ambiguity and make decisions when there might not be enough data available. This calls for thinking systemically, leveraging help, being open to unexpected connections, and taking the time to know what's missing.

"As managers, we're conditioned to patch problems," Brill says. "Also probe root causes and systemic gaps. Invest time to comprehend what's missing in your environment and organization. Deploy the ABCs to spot weak signals and place strategic bets."

# The state of the s

## A new approach to talent

62%

of all surveyed companies have instituted a continuous learning program

68%

plan to expand their investments in technology-focused training

### Get Ahead of the Technology Curve

Technologies like generative design and AI are revolutionizing client expectations. As service providers, firms need to look ahead further than ever to stay ahead of the tech curve.

This means hiring for that future world now.

"There's this perpetual mismatch between the skills employees have and those needed for the future," Brill says. "If customer expectations change, but you haven't trained people, updated processes, or revamped structures, it's an existential threat."

Generative AI technologies are disruptive to nearly every business process, so firms need to upskill promising staff through hands-on training in emerging technologies. "Have your newly upskilled people design 'train-the-trainer' programs and update workflows and offerings, but pilot AI services in low-risk environments first before implementing them in key projects," Brill says. "That's how you add value without overextending capabilities."

# Team members to the C-Suite: "We need to talk"

We need to educate upper-level executives and help them define what's realistic," said Carlos Caminos, manager of asset management at global tire manufacturer Bridgestone. "They need to understand: What is a digital twin? What is digital transformation? And we need to be able to speak in business terms about what digitization will help us achieve.

#### A generational shift

45% of respondents said that the workforce is aging "rapidly"

42% said their companies are too slow to adapt to the needs and desires of the younger generation of workers

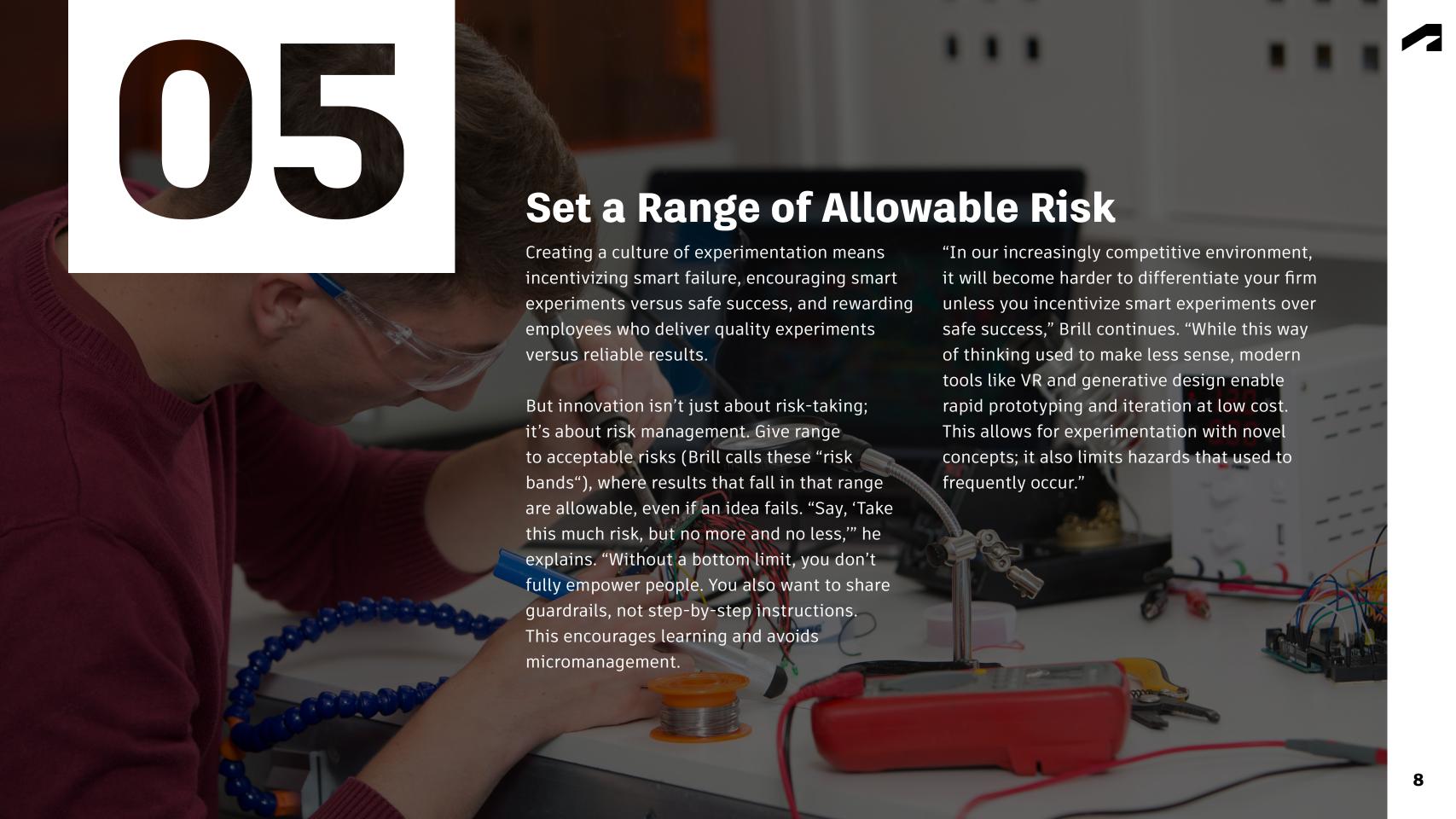
### Be Open to "Flattening" Your Organization

Seventy-two percent of State of Design & Make respondents said that the workforce has evolved more in the past three years than in the previous 25 years, and more than 90% agreed that upskilling is important. As a result, companies are hiring employees who lack the skills needed for their positions and plan to train them on the job.

When it comes to embracing transformative technologies like virtual reality (VR), the metaverse, and AI, timing is everything. "If you're too late, you get no value," Brill says. "But if you're too early, you often get negative value. You've got to get in that 'Goldilocks' zone. You aren't going to get there by having a whole bunch of people in their 50s talk about their experience of technology in the past. It's so different now, and the way you

integrate technology in five years is going to be so dramatically different that you need to get young people into the senior-level conversations, talking about what they're doing, showing what's possible."

"We're going to be increasingly asking people at the junior levels of the organization to make decisions that would typically require more senior executive judgment," Brill continues, adding that up-leveling teams to innovate on behalf of leaders requires cultivating bigpicture awareness, competency, and aligned interests. He recommends incorporating rotational programs and bringing in specialist gig workers to expose high-potential talent to new ways of working.



# Design Innovation Processes With the ROGUE Method

Brill says applying radical innovation as a reliable strategy comes down to a process he calls the "ROGUE Method":

**Reality-test assumptions:** "Our understanding of markets, technologies, and other forces is often dated or inaccurate."

**Observe the system:** "Take the time to understand what caused the current situation and what will create emerging shifts."

Generate the range of possible futures: "Consider what could be, instead of what you want."

Uncouple threats and opportunities: "Drive the most-desirable outcomes and avoid the least-desirable outcomes by timing, sequencing, and hedging your investments."

**Experiment in portfolios:** "Test a range of competing approaches at small scale to find the best options before making irrecoverable investments.

"When you experiment, consider whether you are taking the right approach," Brill advises. "Will you incrementally improve one product or pursue a portfolio of solutions? Car companies have iteratively improved the automobile for 100 years. In contrast, biopharmas invest in portfolios of molecules with calculated risks across time horizons. Car companies always need to be successful, but biopharmas aren't dependent on one success or even one combination of successes. This lets them achieve the right result at the right time no matter which individual experiment works."

## Seize Al Opportunities Across Your Organization

With AI services like ChatGPT and no-code tools like CoPilot making AI accessible to everyone, the key is to identify the best opportunities across all skill levels and put systems in place that bring the most opportunities across your organization—pursuing "quick hits" now while building strategies for the long term.

Currently, AI is performant, not competent, meaning that AI systems can excel at specific tasks but lack the broader contextual understanding and reasoning that humans possess. "In the next 24 months, there's a good possibility we'll start to see some of those gaps filled as multi-agent systems enable one AI that is smart about one type of task or data to work

with AIs that have other competencies,"
Brill says. "As that happens, we may suddenly find ourselves in a radically different world.
Junior people in your organization will find new ways to offload mundane chores, like code compliance and detailing electrical outlets. At the same time, they will have access to shortcuts and virtual coaches that can help them."

In the meantime, firms need to improve their decision-making when it comes to more complex tasks that AI is not yet capable of doing for itself.

# 

## Tap the Potential of High-Value Data

With the massive volume of information generated through project information, communications, sensors, and other technologies, firms are sitting on mountains of valuable data. As firms move into a world where curating that data gets easier, it's time to build systems that realize its value.

opportunities. "Treat your firm's data as a strategic asset waiting to be harnessed," he explains. "However, approach data proactively, layering in governance and ethics from the start. Implement privacy by design and be transparent in how data is used. Regulation will eventually catch up."

"Architects' systems thinking skills are tailormade for deriving insights from complexity," Brill says. "You can build systems to translate this 'data exhaust' into enhanced offerings."

Companies that use data to improve designs, optimize workflows, and provide predictive analytics to clients will uncover new revenue

Disruptions and downturns are inevitable. As firms move toward digital maturity, embracing radical thinking, cultivating a culture of innovation, and approaching resiliency as a growth strategy will lead to greater agility, creating better experiences for customers and employees, and charting a course for success in an unpredictable world.