PacificCPE

COURSE
82503A

Stay Irreplaceable with AI: Augmentation, Adaptability, and Antifragility

Three of the most powerful skills for thriving alongside AI are covered in this course: augmentation, adaptability, and antifragility. You will explore how to enhance your work using AI rather than compete with it, how to stay flexible when tools and workflows shift unexpectedly, and how to build resilience that actually improves under pressure. Lessons drawn from SpaceX's approach to failure and real-life personal stories make these concepts concrete and actionable. If you want to not just survive but grow stronger in a rapidly changing professional landscape, this course delivers.

CREDIT HOURS **2** | FIELD OF STUDY **BUSINESS** | EXAM QUESTIONS **10**

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LEARNING ASSIGNMENTS AND OBJECTIVES

Assignment

- Study the full course materials included here.
- Complete the review questions after each chapter.
- Answer 10 final exam questions.
- Final exam is scored immediately, 70% or better passes.
- Certificate of completion is available in your account.
- Failed exams can be retaken free of charge.

Course Objectives

- Recall the difference between augmentation and automation.
- Recognize why the ROI problem is a major barrier to long-term innovation in organizations.
- Recall the steps for building an antifragile culture within an organization.

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Chapter 1: AUGMENTATION

Chapter Objective

After completing this chapter, you should be able to:

- Recall the difference between augmentation and automation.

Imagine waking up every day to the same alarm, in the same bed, hearing the same song on the radio. You move through the motions—brushing your teeth, grabbing your usual coffee, driving the usual route to work. You see the same people at work, answer the same emails, sit through the same meetings. The day ends, and it feels like you've already lived it.

At first, it's frustrating. Then, numbing. Eventually, you stop noticing it altogether. You are stuck in a loop—performing, producing, executing—but never truly progressing.

In the 1993 classic *Groundhog Day*, Bill Murray plays a cynical weatherman who finds himself in that exact scenario: trapped in time, reliving the same day over and over again. The loop only begins to break when he stops going through the motions and starts reimagining what the day could be—not as something simply to endure. Nothing changes until he does.

It is a comedy, sure—but it also captures something deeply familiar: the soul-crushing weight of repetition. That feeling that we are busy, that we do a lot of things—not always the right ones and not the ones that elevate us—and that, deep down, we are stuck.

We get so used to this repetition that we do not even notice it. There is a deceptively simple question I often ask my MBA students, and now I ask you: "When was the last time you did something for the first time at work?" When was the last time you truly stepped away from your processes, habits, and routines and actually did something new? For most of us, the answer is, "It has been a while," because our workdays are dominated by repetition. Take a moment to reflect: How much of your day involves creativity, strategy, or learning something new, and how much of it is spent doing the same tasks you did yesterday?

Answering emails. Processing invoices. Updating spreadsheets. Generating reports. Logging data. In manufacturing, it might mean monitoring the same production metrics or running routine quality checks. In finance, reconciling transactions or approving expenses. In marketing, writing similar briefs or analyzing dashboards. No job, no department, no industry is immune to this.

Across industries and roles, people spend countless hours on tasks that are predictable, repetitive, and tightly woven into the machinery of business. According to Asana's *Anatomy of Work Global Index*[1], 60% of working hours are taken up by this kind of "work about work"—the repetitive

overhead of coordinating tasks, managing workflows, and tracking progress, rather than doing meaningful work itself—leaving only 26% for skills-based work and just 14% for forward-looking strategy.

It is no wonder, then, that a UiPath global survey found 67% of office workers feel crushed by repetitive work—like a modern-day Sisyphus, condemned to push the same boulder up the hill each day, only to watch it roll back down again[2]. Many long for something more: the chance to tackle meaningful problems, stretch their skills, or simply feel that they are building something that matters. But let's be clear: these repetitive tasks do matter. Invoices must be processed. Data must be logged. Emails must be answered. They are the connective tissue of modern organizations—essential to keeping them running and profitable. The argument here is not that this work should stop being done. The argument is that it should stop being done by humans.

While these tasks are necessary, they rarely require what makes us uniquely valuable. Most do not call for creativity, empathy, strategic judgment, or ethical reasoning—at least not beyond the moment they are first designed or implemented. What they do require is consistency, speed, and precision—traits that AI now delivers better, faster, and at lower cost through task automation.

As discussed in Chapter 1 of course 82501A, *automation* refers to the use of AI to handle repetitive, rule-based tasks—freeing us from the cognitive drain of activities that no longer require human input. It is a powerful solution to the "work about work" dilemma: instead of manually updating spreadsheets, chasing approvals, or sorting through inboxes, machines can now perform these functions better, faster, and more cost-effectively. But automation is only the beginning.

The true opportunity lies in *augmentation*—the use of AI not to perform human tasks on our behalf, but to amplify what we do best. Augmentation is a skill—an essential component of AI literacy—that enables us to use AI tools to maximize the quality, impact, and creativity of our human output.

What if we stopped seeing AI as a threat to our jobs and started seeing it as a powerful partner—one that helps us reclaim our time, energy, and attention? By automating what no longer requires our human input, we create the space—mentally and operationally—to focus on what still does, opening the door to more meaningful work. That is the promise of augmentation: using AI not just to automate tasks, but to amplify what humans do best—faster, smarter, and more creatively.

Automation may be the foundation, but augmentation is the differentiator. One clears the space; the other elevates the work. Together, they allow us to step out of the Groundhog Day loop and into a new paradigm of productivity—where our contributions feel not just useful, but uniquely human.

But to be clear, we can only enhance our uniquely human capabilities once the repetitive tasks have been automated first.

Automation: Paving the Way for Human-Centered Work

Before we can elevate the quality of our work, we need to first clear the repetitive, rule-based tasks that consume our mental bandwidth. Tackling automation head-on allows us to reclaim the time and cognitive space required for more creative, strategic, and high-impact contributions. According to Accenture's report A New Era of Generative AI for Everyone, the potential here is massive: LLMs like ChatGPT could automate up to 31% of working hours in the United States—specifically tasks that require little to no human involvement[3].

However, the impact of automation varies widely across sectors. In industries like banking and insurance, where much of the work involves language-heavy, repetitive tasks—such as processing claims, reviewing loan applications, generating reports, the automation potential is much higher—54% and 48% of working hours, respectively.

In contrast, sectors such as life sciences and chemicals, which rely more on physical or hands-on work, show much lower automation potential—just 25% and 24%, respectively.

But automation does not stop at language. A wide range of non-language tasks—often more operational in nature—can also be automated through predictive AI, which uses structured data to recognize patterns, anticipate outcomes, and take action. These tasks range from simple processes like document classification to more complex operations such as inventory optimization or fraud detection.

Take Fortinet, for example—a global leader in cybersecurity. The company developed FortiAIOps, an AI-powered platform that automates and streamlines network operations by continuously gathering data from network devices, identifying anomalies, predicting potential issues, and proactively optimizing system performance. This is process automation in action: tasks that once required hours of manual troubleshooting are now handled automatically and in real time—freeing IT teams to focus on strategic work rather than firefighting.

In particular, three characteristics make a task especially ripe for automation:

- **Structure.** The task has clearly defined inputs and outputs, with repeatable steps that follow logical rules.
- **Familiarity.** There is a large volume of historical data or past examples that AI can learn from.
- **Low ambiguity.** Success and failure are easy to define, with little need for judgment, creativity, or contextual interpretation.

This list aligns with computer scientist Scott Aaronson's "Game Over Theory" discussed in Chapter 1 of course 82501A: AI performs best when we have abundant examples of success and failure and where clear patterns can be learned. The more repetitive the task, the more suitable it is for automation. In many of these domains, AI does not just match us—it often outperforms us in speed and accuracy.

When it comes to speed, the impact of AI automation is nothing short of transformative. As NVIDIA's CEO Jensen Huang put it, "The majority of our chips are designed by Artificial Intelligence —without it, we would not innovate that fast."

This acceleration is not limited to tech companies. Take Dow Chemicals, for instance. By integrating predictive AI with Microsoft's tools, the company has reimagined its R&D process. What once took two to three months—discovering a new polyurethane formulation tailored to a specific customer—can now be achieved in just 30 seconds[4]. That's a 200,000-fold acceleration in innovation.

Speed is not the only advantage of AI. Accuracy is another. Take the example of self-driving cars[5]. A recent study published in *Nature Communications* compared over 2,100 autonomous vehicle accident reports in California with 35,000 incidents involving human-driven cars. After matching 548 comparable cases, researchers found that autonomous vehicles were, in most instances, safer than human drivers[6].

AI's Productivity Paradox and the Commoditization of Execution

One might quickly conclude that the promise of AI automation leads to remarkable productivity gains and substantial value creation—by reducing costs and unlocking new revenue streams. Many experts share this view[7]. According to McKinsey's optimistic report *The Economic Potential of Generative AI*, the global economic impact could range between $2.6 and $4.4 trillion, driven largely by efficiency gains across the workforce.

But not everyone shares this optimism. Economist Daron Acemoglu, in his paper "The Simple Macroeconomics of AI," argues that AI's impact on total factor productivity—the gold standard for measuring economic efficiency—will likely remain below 1% over the next decade in the United States[8]. His estimates suggest a cumulative gain of just 0.66%, largely because current AI applications tend to excel in routine, easily learnable tasks—the ones that generate relatively low economic value—while their impact on more complex, higher-value work will take much longer to materialize. The first reason AI's impact may fall short of expectations is that, through automation, it is mostly making more efficient the kind of work that was unproductive to begin with. An article in *The Conversation*, entitled "ChatGPT: why it will probably remain just a tool that does inefficient work more efficiently," explores this challenge through the lens of anthropologist David Graeber's now-famous theory of "bullshit jobs[9]." Graeber argued that many modern office roles are inherently unproductive, sustained by bureaucracy and internal process loops, and when AI automates tasks like formatting data, writing invoices, or compiling internal reports, it does not necessarily create real value—it merely accelerates processes that were already inefficient to begin with.

This disconnect—between technological promise and real-world productivity—is known in academia as the *Productivity Paradox*. It was explored in depth by Erik Brynjolfsson in his 1994 paper of the same name[10], inspired by Robert Solow's now-famous line: "You can see the computer age

everywhere, but in the productivity statistics[11]." That paradox is reaching new heights in today's AI era—and once again, it is being unpacked by thinkers like Acemoglu.

The second reason AI automation may fall short of delivering real economic gains is that its benefits quickly level out when everyone automates in similar ways. As the same AI tools become widely accessible, and every company automates faster and more efficiently, the competitive edge begins to disappear. Speed and efficiency stop being differentiators. They become the baseline, and in this scenario, execution turns into a commodity: no longer a strategic advantage, but simply the cost of staying in the game.

I experienced this firsthand—and if you create content on LinkedIn, you probably have too. In 2022, after some experimentation, I built an efficient AI-powered workflow to support my work as a keynote speaker. Each week, I wrote an article that ChatGPT translated into Portuguese and Spanish, adapted into Tweet format, and turned into a video script—all in seconds. What once took hours now took less than 10 minutes. I then recorded my podcasts and videos on Riverside.fm, used Magic Clips to edit and subtitle them in minutes, and created thumbnails in Canva. Even the article-writing process became faster, thanks to research tools like Perplexity.ai.

At first, it felt like a superpower, and I believed I would outpace competitors and stand out. But I was wrong. Scrolling through social media, I realized everyone was doing the same—posting high-quality content, more frequently. The same tools that had empowered me had empowered everyone else, and what once felt like a strategic edge had quickly become the new baseline.

This realization sparked a deeper reflection: In a world increasingly powered by AI, is execution still a differentiator? We previously explored how the abundance of knowledge led to the commoditization of ideas in our discussion of reperception. But once everyone had access to the same information, the true differentiator became execution—the ability to act on those ideas better and faster than others. This belief was crystallized in the 2002 book *Execution: The Discipline of Getting Things Done* by Larry Bossidy and Ram Charan, which argued that success belongs not to those with the best ideas—but to those who can implement them faster and more efficiently[12].

Concepts like the First Mover Advantage became mainstream, and the idea that execution trumps ideation quickly turned into a business mantra[13]. "Vision without execution is hallucination," Thomas Edison warned[14]. "Ideas are a commodity. Execution is not," echoed Michael Dell. Even Herb Kelleher, co-founder of Southwest Airlines, captured it with typical bluntness: "We have a strategic plan. It's called 'doing things'[15]."

After all, even with the rise of digital tools and innovation frameworks, execution remained a formidable challenge—it was costly, complex, resource-intensive, and carried a high risk of failure. Ideation, by

contrast, was relatively inexpensive and low-risk—often sparked by sudden flashes of insight, like Archimedes' legendary eureka moment in his bathtub.

This fundamental imbalance is what made execution so valuable: not everyone could do it well. The most successful companies and leaders were those who could execute faster, more efficiently, and with fewer mistakes—turning ideas into outcomes while others were still polishing their pitch decks.

But now, as AI accelerates familiar tasks, workflows, production, and delivery, execution itself is becoming a commodity. Simply building a product or launching a service is no longer a meaningful competitive advantage. AI is already speeding up execution across nearly every domain—from design and development to marketing, sales, and customer support. With the right guidance and input, AI can generate code, draft branding strategies, personalize communications, and even anticipate customer needs in real time, and this transformation is not limited to digital products alone. As AI begins to optimize and enhance manufacturing processes—especially when paired with widely accessible technologies like 3D printing and robotics—the acceleration of execution will extend into the physical world.

With each new wave of AI advancements—especially as models become more agentic, multimodal, and fine-tuned for specific industries—execution is becoming exponentially faster and more sophisticated. The question is no longer if AI will do it. The question is, "What is left for us to do?"

The consequence is clear—and challenging: in a world where execution becomes effortless, expectations will rise exponentially. Customers will no longer be impressed by functionality alone; they will demand continuous improvement, faster updates, seamless integration, and increasingly personalized, high-quality experiences. Therefore, end quality and human touch are increasingly valued by consumers in a world where execution is being commoditized by AI—and no company illustrates this better than Hermès.

As of 2025, Hermès was the fourth largest company in Europe by market capitalization, valued at approximately $300 billion. Its ethos was best captured by Creative Director Pierre-Alexis Dumas, a descendant of the company's founder, in an interview with CBS's 60 Minutes[16]. The interviewer said to Dumas, "If I went to the Mercedes dealership and I said I would like that car, and they said, OK, you're going to have to wait five years—they'd be out of business." Dumas replied,

> You're talking about industrial production. You're applying your thinking structure of industrial production to craft. We're about craft. We're not machines. And we are not compromising on the quality of the way we make the bags.... [S]peed is the structuring value of the 20th century. We went from horse carriages to the internet. Are we going to be so obsessed with speed and immediate satisfaction? Maybe not. Maybe there is another form of relation to the world which is linked to patience, to taking the time of making things right. You cannot compress time at one point without compromising on quality.

I know this might sound contradictory in a book that highlights the positive impact of AI-driven speed on business—but it is not. In fact, Dumas was reinforcing a central idea: that quality, which is

amplified through augmentation, matters more than mere speed and efficiency, which come from task automation alone.

Hermès' strategy is deliberate: its most iconic product, the Birkin bag, is hard to buy—not due to limited capacity, but by design. Each bag is handcrafted by a single artisan over 20 hours, using carefully selected materials. There is no online store, no promotional push—just a waiting list. Scarcity, time, and craftsmanship have become part of the value. In a world where speed and scale are commoditized by automation, what stands out is what cannot be easily replicated—work infused with human care, meaning, and mastery.

Yes, the consumer's bar is higher now—and that is exactly why brands like Hermès, with their focus on quality and scarcity, and Italian shoemaker Golden Goose, with its emphasis on personalization and differentiation, are thriving. In an era where speed and scale are accessible to all, these brands succeed because they resist the pull of commoditization. They choose craftsmanship over mass production, uniqueness over uniformity—and in doing so, they stand out in a world increasingly defined by sameness.

In other words, as AI accelerates creation, it also raises the bar. That is precisely why the quality of our human work must rise in proportion to the speed that automation delivers. So, what's the solution to AI's productivity paradox—and to the increasing commoditization of execution? It begins with recalibrating AI's role within our systems and organizations.

Returning to the insights of economist Daron Acemoglu—and to the central argument of this chapter—the answer becomes clear: we must move beyond automation and embrace augmentation too.

Augmentation: Enhancing Human Work's Quality

Daron Acemoglu argues that for AI to deliver real, sustained productivity growth, it must do more than automate routine tasks. It must amplify human capabilities—empowering people to tackle more complex problems, make smarter decisions, and take on higher-value work. In short, AI must augment us, not just replace us.

Instead of using AI solely to cut costs or reduce headcount, we need to focus on how it can elevate judgment, extend creativity, and amplify human potential. Because if execution alone is no longer a competitive advantage, then what is?

That is where augmentation comes in. Rather than replacing us, AI becomes a force multiplier. It is about using the time that automation gives back to us to improve the quality of our work—not just doing more, but doing better.

Before the Industrial Revolution, craftspeople built products by hand—each item unique, shaped by skill, patience, and care. Then came mechanized production, which did not eliminate craftsmanship—it complemented it: machines took over repetitive tasks, freeing artisans to focus on