DEEP

RULES FOR FOCUSED SUCCESS
IN A DISTRACTED WORLD

WORK

CAL NEWPORT
AUTHOR OF *SO GOOD THEY CAN'T IGNORE YOU*

DEEP WORK

Rules for Focused Success in a Distracted World

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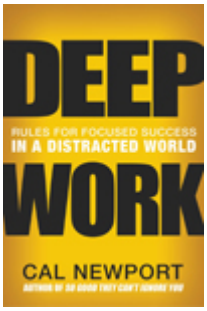

Introduction

In the Swiss canton of St. Gallen, near the northern banks of Lake Zurich, is a village named Bollingen. In 1922, the psychiatrist Carl Jung chose this spot to begin building a retreat. He began with a basic two-story stone house he called the Tower. After returning from a trip to India, where he observed the practice of adding meditation rooms to homes, he expanded the complex to include a private office. "In my retiring room I am by myself," Jung said of the space. "I keep the key with me all the time; no one else is allowed in there except with my permission."

In his book *Daily Rituals*, journalist Mason Currey sorted through various sources on Jung to re-create the psychiatrist's work habits at the Tower. Jung would rise at seven a.m., Currey reports, and after a big breakfast he would spend two hours of undistracted writing time in his private office. His afternoons would often consist of meditation or long walks in the surrounding countryside. There was no electricity at the Tower, so as day gave way to night, light came from oil lamps and heat from the fireplace. Jung would retire to bed by ten p.m. "The feeling of repose and renewal that I had in this tower was intense from the start," he said.

Though it's tempting to think of Bollingen Tower as a vacation home, if we put it into the context of Jung's career at this point it's clear that the lakeside retreat was not built as an escape from work. In 1922, when Jung bought the property, he could not afford to take a vacation. Only one year earlier, in 1921, he had published *Psychological Types*, a seminal book that solidified many differences that had been long developing between Jung's thinking and the ideas of his onetime friend and mentor, Sigmund Freud. To disagree

with Freud in the 1920s was a bold move. To back up his book, Jung needed to stay sharp and produce a stream of smart articles and books further supporting and establishing *analytical psychology*, the eventual name for his new school of thought.

Jung's lectures and counseling practice kept him busy in Zurich—this is clear. But he wasn't satisfied with busyness alone. He wanted to change the way we understood the unconscious, and this goal required deeper, more careful thought than he could manage amid his hectic city lifestyle. Jung retreated to Bollingen, not to escape his professional life, but instead to advance it.

Carl Jung went on to become one of the most influential thinkers of the twentieth century. There are, of course, many reasons for his eventual success. In this book, however, I'm interested in his commitment to the following skill, which almost certainly played a key role in his accomplishments:

Deep Work: Professional activities performed in a state of distraction-free concentration that push your cognitive capabilities to their limit. These efforts create new value, improve your skill, and are hard to replicate.

Deep work is necessary to wring every last drop of value out of your current intellectual capacity. We now know from decades of research in both psychology and neuroscience that the state of mental strain that accompanies deep work is also necessary to improve your abilities. Deep work, in other words, was exactly the type of effort needed to stand out in a cognitively demanding field like academic psychiatry in the early twentieth century.

The term "deep work" is my own and is not something Carl Jung would have used, but his actions during this period were those of someone who understood the underlying concept. Jung built a tower out of stone in the woods to promote deep work in his professional life—a task that required time, energy, and money. It also took him

away from more immediate pursuits. As Mason Currey writes, Jung's regular journeys to Bollingen reduced the time he spent on his clinical work, noting, "Although he had many patients who relied on him, Jung was not shy about taking time off." Deep work, though a burden to prioritize, was crucial for his goal of changing the world.

Indeed, if you study the lives of other influential figures from both distant and recent history, you'll find that a commitment to deep work is a common theme. The sixteenth-century essayist Michel de Montaigne, for example, prefigured Jung by working in a private library he built in the southern tower guarding the stone walls of his French château, while Mark Twain wrote much of *The Adventures of Tom Sawyer* in a shed on the property of the Quarry Farm in New York, where he was spending the summer. Twain's study was so isolated from the main house that his family took to blowing a horn to attract his attention for meals.

Moving forward in history, consider the screenwriter and director Woody Allen. In the forty-four-year period between 1969 and 2013, Woody Allen wrote and directed forty-four films that received twenty-three Academy Award nominations—an absurd rate of artistic productivity. Throughout this period, Allen never owned a computer, instead completing all his writing, free from electronic distraction, on a German Olympia SM3 manual typewriter. Allen is joined in his rejection of computers by Peter Higgs, a theoretical physicist who performs his work in such disconnected isolation that journalists couldn't find him after it was announced he had won the Nobel Prize. J.K. Rowling, on the other hand, *does* use a computer, but was famously absent from social media during the writing of her Harry Potter novels—even though this period coincided with the rise of the technology and its popularity among media figures. Rowling's staff finally started a Twitter account in her name in the fall of 2009, as she was working on *The Casual Vacancy*, and for the first year and a half her only tweet read: "This is the real me, but you won't be hearing from me often I am afraid, as pen and paper is my priority at the moment."

Deep work, of course, is not limited to the historical or technophobic. Microsoft CEO Bill Gates famously conducted "Think

Weeks" twice a year, during which he would isolate himself (often in a lakeside cottage) to do nothing but read and think big thoughts. It was during a 1995 Think Week that Gates wrote his famous "Internet Tidal Wave" memo that turned Microsoft's attention to an upstart company called Netscape Communications. And in an ironic twist, Neal Stephenson, the acclaimed cyberpunk author who helped form our popular conception of the Internet age, is near impossible to reach electronically—his website offers no e-mail address and features an essay about why he is purposefully bad at using social media. Here's how he once explained the omission: "If I organize my life in such a way that I get lots of long, consecutive, uninterrupted time-chunks, I can write novels. [If I instead get interrupted a lot] what replaces it? Instead of a novel that will be around for a long time… there is a bunch of e-mail messages that I have sent out to individual persons."

The ubiquity of deep work among influential individuals is important to emphasize because it stands in sharp contrast to the behavior of most modern knowledge workers—a group that's rapidly forgetting the value of going deep.

The reason knowledge workers are losing their familiarity with deep work is well established: network tools. This is a broad category that captures communication services like e-mail and SMS, social media networks like Twitter and Facebook, and the shiny tangle of infotainment sites like BuzzFeed and Reddit. In aggregate, the rise of these tools, combined with ubiquitous access to them through smartphones and networked office computers, has fragmented most knowledge workers' attention into slivers. A 2012 McKinsey study found that the average knowledge worker now spends more than 60 percent of the workweek engaged in electronic communication and Internet searching, with close to 30 percent of a worker's time dedicated to reading and answering e-mail alone.

This state of fragmented attention cannot accommodate deep work, which requires long periods of uninterrupted thinking. At the

same time, however, modern knowledge workers are not loafing. In fact, they report that they are as busy as ever. What explains the discrepancy? A lot can be explained by another type of effort, which provides a counterpart to the idea of deep work:

Shallow Work: Noncognitively demanding, logistical-style tasks, often performed while distracted. These efforts tend to not create much new value in the world and are easy to replicate.

In an age of network tools, in other words, knowledge workers increasingly replace deep work with the shallow alternative—constantly sending and receiving e-mail messages like human network routers, with frequent breaks for quick hits of distraction. Larger efforts that would be well served by deep thinking, such as forming a new business strategy or writing an important grant application, get fragmented into distracted dashes that produce muted quality. To make matters worse for depth, there's increasing evidence that this shift toward the shallow is not a choice that can be easily reversed. Spend enough time in a state of frenetic shallowness and you *permanently* reduce your capacity to perform deep work. "What the Net seems to be doing is chipping away my capacity for concentration and contemplation," admitted journalist Nicholas Carr, in an oft-cited 2008 *Atlantic* article. "[And] I'm not the only one." Carr expanded this argument into a book, *The Shallows*, which became a finalist for the Pulitzer Prize. To write *The Shallows*, appropriately enough, Carr had to move to a cabin and forcibly disconnect.

The idea that network tools are pushing our work from the deep toward the shallow is not new. *The Shallows* was just the first in a series of recent books to examine the Internet's effect on our brains and work habits. These subsequent titles include William Powers's *Hamlet's BlackBerry*, John Freeman's *The Tyranny of E-mail*, and Alex Soojung-Kin Pang's *The Distraction Addiction*—all of which agree, more or less, that network tools are distracting us from work that requires unbroken concentration, while simultaneously

degrading our capacity to remain focused.

Given this existing body of evidence, I will not spend more time in this book trying to establish this point. We can, I hope, stipulate that network tools negatively impact deep work. I'll also sidestep any grand arguments about the long-term societal consequence of this shift, as such arguments tend to open impassible rifts. On one side of the debate are techno-skeptics like Jaron Lanier and John Freeman, who suspect that many of these tools, at least in their current state, damage society, while on the other side techno-optimists like Clive Thompson argue that they're changing society, for sure, but in ways that'll make us better off. Google, for example, might reduce our memory, but we no longer *need* good memories, as in the moment we can now search for anything we need to know.

I have no stance in this philosophical debate. My interest in this matter instead veers toward a thesis of much more pragmatic and individualized interest: Our work culture's shift toward the shallow (whether you think it's philosophically good or bad) is exposing a massive economic and personal opportunity for the few who recognize the potential of resisting this trend and prioritizing depth—an opportunity that, not too long ago, was leveraged by a bored young consultant from Virginia named Jason Benn.

There are many ways to discover that you're not valuable in our economy. For Jason Benn the lesson was made clear when he realized, not long after taking a job as a financial consultant, that the vast majority of his work responsibilities could be automated by a "kludged together" Excel script.

The firm that hired Benn produced reports for banks involved in complex deals. ("It was about as interesting as it sounds," Benn joked in one of our interviews.) The report creation process required hours of manual manipulation of data in a series of Excel spreadsheets. When he first arrived, it took Benn up to six hours per report to finish this stage (the most efficient veterans at the firm could complete this task in around half the time). This didn't sit well

with Benn.

"The way it was taught to me, the process seemed clunky and manually intensive," Benn recalls. He knew that Excel has a feature called macros that allows users to automate common tasks. Benn read articles on the topic and soon put together a new worksheet, wired up with a series of these macros that could take the six-hour process of manual data manipulation and replace it, essentially, with a button click. A report-writing process that originally took him a full workday could now be reduced to less than an hour.

Benn is a smart guy. He graduated from an elite college (the University of Virginia) with a degree in economics, and like many in his situation he had ambitions for his career. It didn't take him long to realize that these ambitions would be thwarted so long as his main professional skills could be captured in an Excel macro. He decided, therefore, he needed to increase his value to the world. After a period of research, Benn reached a conclusion: He would, he declared to his family, quit his job as a human spreadsheet and become a computer programmer. As is often the case with such grand plans, however, there was a hitch: Jason Benn had no idea how to write code.

As a computer scientist I can confirm an obvious point: Programming computers is hard. Most new developers dedicate a four-year college education to learning the ropes before their first job—and even then, competition for the best spots is fierce. Jason Benn didn't have this time. After his Excel epiphany, he quit his job at the financial firm and moved home to prepare for his next step. His parents were happy he had a plan, but they weren't happy about the idea that this return home might be long-term. Benn needed to learn a hard skill, and needed to do so *fast*.

It's here that Benn ran into the same problem that holds back many knowledge workers from navigating into more explosive career trajectories. Learning something complex like computer programming requires intense uninterrupted concentration on cognitively demanding concepts—the type of concentration that drove Carl Jung to the woods surrounding Lake Zurich. This task, in other words, is an act of deep work. Most knowledge workers,

however, as I argued earlier in this introduction, have lost their ability to perform deep work. Benn was no exception to this trend.

"I was always getting on the Internet and checking my e-mail; I couldn't stop myself; it was a compulsion," Benn said, describing himself during the period leading up to his quitting his finance job. To emphasize his difficulty with depth, Benn told me about a project that a supervisor at the finance firm once brought to him. "They wanted me to write a business plan," he explained. Benn didn't know how to write a business plan, so he decided he would find and read five different existing plans—comparing and contrasting them to understand what was needed. This was a good idea, but Benn had a problem: "I couldn't stay focused." There were days during this period, he now admits, when he spent almost every minute ("98 percent of my time") surfing the Web. The business plan project—a chance to distinguish himself early in his career—fell to the wayside.

By the time he quit, Benn was well aware of his difficulties with deep work, so when he dedicated himself to learning how to code, he knew he had to simultaneously teach his mind how to go deep. His method was drastic but effective. "I locked myself in a room with no computer: just textbooks, notecards, and a highlighter." He would highlight the computer programming textbooks, transfer the ideas to notecards, and then practice them out loud. These periods free from electronic distraction were hard at first, but Benn gave himself no other option: He *had* to learn this material, and he made sure there was nothing in that room to distract him. Over time, however, he got better at concentrating, eventually getting to a point where he was regularly clocking five or more disconnected hours per day in the room, focused without distraction on learning this hard new skill. "I probably read something like eighteen books on the topic by the time I was done," he recalls.

After two months locked away studying, Benn attended the notoriously difficult Dev Bootcamp: a hundred-hour-a-week crash course in Web application programming. (While researching the program, Benn found a student with a PhD from Princeton who had described Dev as "the hardest thing I've ever done in my life.") Given both his preparation and his newly honed ability for deep work, Benn

excelled. “Some people show up not prepared,” he said. “They can’t focus. They can’t learn quickly.” Only half the students who started the program with Benn ended up graduating on time. Benn not only graduated, but was also the top student in his class.

The deep work paid off. Benn quickly landed a job as a developer at a San Francisco tech start-up with $25 million in venture funding and its pick of employees. When Benn quit his job as a financial consultant, only half a year earlier, he was making $40,000 a year. His new job as a computer developer paid $100,000—an amount that can continue to grow, essentially without limit in the Silicon Valley market, along with his skill level.

When I last spoke with Benn, he was thriving in his new position. A newfound devotee of deep work, he rented an apartment across the street from his office, allowing him to show up early in the morning before anyone else arrived and work without distraction. “On good days, I can get in four hours of focus before the first meeting,” he told me. “Then maybe another three to four hours in the afternoon. And I do mean ‘focus’: no e-mail, no Hacker News [a website popular among tech types], just programming.” For someone who admitted to sometimes spending up to 98 percent of his day in his old job surfing the Web, Jason Benn’s transformation is nothing short of astonishing.

Jason Benn’s story highlights a crucial lesson: Deep work is not some nostalgic affectation of writers and early-twentieth-century philosophers. It’s instead a skill that has great value today.

There are two reasons for this value. The first has to do with learning. We have an information economy that’s dependent on complex systems that change rapidly. Some of the computer languages Benn learned, for example, didn’t exist ten years ago and will likely be outdated ten years from now. Similarly, someone coming up in the field of marketing in the 1990s probably had no idea that today they’d need to master digital analytics. To remain valuable in our economy, therefore, you must master the art of

quickly learning complicated things. This task requires deep work. If you don't cultivate this ability, you're likely to fall behind as technology advances.

The second reason that deep work is valuable is because the impacts of the digital network revolution cut both ways. If you can create something useful, its reachable audience (e.g., employers or customers) is essentially limitless—which greatly magnifies your reward. On the other hand, if what you're producing is mediocre, then you're in trouble, as it's too easy for your audience to find a better alternative online. Whether you're a computer programmer, writer, marketer, consultant, or entrepreneur, your situation has become similar to Jung trying to outwit Freud, or Jason Benn trying to hold his own in a hot start-up: To succeed you have to produce the absolute best stuff you're capable of producing—a task that requires depth.

The growing necessity of deep work is new. In an industrial economy, there was a small skilled labor and professional class for which deep work was crucial, but most workers could do just fine without ever cultivating an ability to concentrate without distraction. They were paid to crank widgets—and not much about their job would change in the decades they kept it. But as we shift to an information economy, more and more of our population are knowledge workers, and deep work is becoming a key currency—even if most haven't yet recognized this reality.

Deep work is not, in other words, an old-fashioned skill falling into irrelevance. It's instead a crucial ability for anyone looking to move ahead in a globally competitive information economy that tends to chew up and spit out those who aren't earning their keep. The real rewards are reserved not for those who are comfortable using Facebook (a shallow task, easily replicated), but instead for those who are comfortable building the innovative distributed systems that run the service (a decidedly deep task, hard to replicate). Deep work is so important that we might consider it, to use the phrasing of business writer Eric Barker, "the superpower of the 21st century."

We have now seen two strands of thought—one about the increasing scarcity of deep work and the other about its increasing value—which we can combine into the idea that provides the foundation for everything that follows in this book:

The Deep Work Hypothesis: The ability to perform deep work is becoming increasingly *rare* at exactly the same time it is becoming increasingly *valuable* in our economy. As a consequence, the few who cultivate this skill, and then make it the core of their working life, will thrive.

This book has two goals, pursued in two parts. The first, tackled in Part 1, is to convince you that the deep work hypothesis is true. The second, tackled in Part 2, is to teach you how to take advantage of this reality by training your brain and transforming your work habits to place deep work at the core of your professional life. Before diving into these details, however, I'll take a moment to explain how I became such a devotee of depth.

I've spent the past decade cultivating my own ability to concentrate on hard things. To understand the origins of this interest, it helps to know that I'm a theoretical computer scientist who performed my doctoral training in MIT's famed Theory of Computation group—a professional setting where the ability to focus is considered a crucial occupational skill.

During these years, I shared a graduate student office down the hall from a MacArthur "genius grant" winner—a professor who was hired at MIT before he was old enough to legally drink. It wasn't uncommon to find this theoretician sitting in the common space, staring at markings on a whiteboard, with a group of visiting scholars arrayed around him, also sitting quietly and staring. This could go on for hours. I'd go to lunch; I'd come back—still staring. This particular professor is hard to reach. He's not on Twitter and if

he doesn't know you, he's unlikely to respond to your e-mail. Last year he published sixteen papers.

This type of fierce concentration permeated the atmosphere during my student years. Not surprisingly, I soon developed a similar commitment to depth. To the chagrin of both my friends and the various publicists I've worked with on my books, I've never had a Facebook or Twitter account, or any other social media presence outside of a blog. I don't Web surf and get most of my news from my home-delivered *Washington Post* and NPR. I'm also generally hard to reach: My author website doesn't provide a personal e-mail address, and I didn't own my first smartphone until 2012 (when my pregnant wife gave me an ultimatum—"you have to have a phone *that works* before our son is born").

On the other hand, my commitment to depth has rewarded me. In the ten-year period following my college graduation, I published four books, earned a PhD, wrote peer-reviewed academic papers at a high rate, and was hired as a tenure-track professor at Georgetown University. I maintained this voluminous production while rarely working past five or six p.m. during the workweek.

This compressed schedule is possible because I've invested significant effort to minimize the shallow in my life while making sure I get the most out of the time this frees up. I build my days around a core of carefully chosen deep work, with the shallow activities I absolutely cannot avoid batched into smaller bursts at the peripheries of my schedule. Three to four hours a day, five days a week, of uninterrupted and carefully directed concentration, it turns out, can produce a lot of valuable output.

My commitment to depth has also returned nonprofessional benefits. For the most part, I don't touch a computer between the time when I get home from work and the next morning when the new workday begins (the main exception being blog posts, which I like to write after my kids go to bed). This ability to fully disconnect, as opposed to the more standard practice of sneaking in a few quick work e-mail checks, or giving in to frequent surveys of social media sites, allows me to be present with my wife and two sons in the evenings, and read a surprising number of books for a busy father of

two. More generally, the lack of distraction in my life tones down that background hum of nervous mental energy that seems to increasingly pervade people's daily lives. I'm comfortable being bored, and this can be a surprisingly rewarding skill—especially on a lazy D.C. summer night listening to a Nationals game slowly unfold on the radio.

This book is best described as an attempt to formalize and explain my attraction to depth over shallowness, and to detail the types of strategies that have helped me act on this attraction. I've committed this thinking to words, in part, to help you follow my lead in rebuilding your life around deep work—but this isn't the whole story. My other interest in distilling and clarifying these thoughts is to further develop my own practice. My recognition of the deep work hypothesis has helped me thrive, but I'm convinced that I haven't yet reached my full value-producing potential. As you struggle and ultimately triumph with the ideas and rules in the chapters ahead, you can be assured that I'm following suit—ruthlessly culling the shallow and painstakingly cultivating the intensity of my depth. (You'll learn how I fare in this book's conclusion.)

When Carl Jung wanted to revolutionize the field of psychiatry, he built a retreat in the woods. Jung's Bollingen Tower became a place where he could maintain his ability to think deeply and then apply the skill to produce work of such stunning originality that it changed the world. In the pages ahead, I'll try to convince you to join me in the effort to build our own personal Bollingen Towers; to cultivate an ability to produce real value in an increasingly distracted world; and to recognize a truth embraced by the most productive and important personalities of generations past: A deep life is a good life.

PART 1

The Idea

Chapter One

Deep Work Is Valuable

As Election Day loomed in 2012, traffic at the *New York Times* website spiked, as is normal during moments of national importance. But this time, something was different. A wildly disproportionate fraction of this traffic—more than 70 percent by some reports—was visiting a single location in the sprawling domain. It wasn't a front-page breaking news story, and it wasn't commentary from one of the paper's Pulitzer Prize–winning columnists; it was instead a blog run by a baseball stats geek turned election forecaster named Nate Silver. Less than a year later, ESPN and ABC News lured Silver away from the *Times* (which tried to retain him by promising a staff of up to a dozen writers) in a major deal that would give Silver's operation a role in everything from sports to weather to network news segments to, improbably enough, Academy Awards telecasts. Though there's debate about the methodological rigor of Silver's hand-tuned models, there are few who deny that in 2012 this thirty-five-year-old data whiz was a winner in our economy.

Another winner is David Heinemeier Hansson, a computer programming star who created the Ruby on Rails website development framework, which currently provides the foundation for some of the Web's most popular destinations, including Twitter and Hulu. Hansson is a partner in the influential development firm Basecamp (called 37signals until 2014). Hansson doesn't talk publicly about the magnitude of his profit share from Basecamp or his other revenue sources, but we can assume they're lucrative given

that Hansson splits his time between Chicago, Malibu, and Marbella, Spain, where he dabbles in high-performance race-car driving.

Our third and final example of a clear winner in our economy is John Doerr, a general partner in the famed Silicon Valley venture capital fund Kleiner Perkins Caufield & Byers. Doerr helped fund many of the key companies fueling the current technological revolution, including Twitter, Google, Amazon, Netscape, and Sun Microsystems. The return on these investments has been astronomical: Doerr's net worth, as of this writing, is more than $3 billion.

Why have Silver, Hansson, and Doerr done so well? There are two types of answers to this question. The first are *micro* in scope and focus on the personality traits and tactics that helped drive this trio's rise. The second type of answers are more *macro* in that they focus less on the individuals and more on the type of work they represent. Though both approaches to this core question are important, the macro answers will prove most relevant to our discussion, as they better illuminate what our current economy rewards.

To explore this macro perspective we turn to a pair of MIT economists, Erik Brynjolfsson and Andrew McAfee, who in their influential 2011 book, *Race Against the Machine,* provide a compelling case that among various forces at play, it's the rise of digital technology in particular that's transforming our labor markets in unexpected ways. "We are in the early throes of a Great Restructuring," Brynjolfsson and McAfee explain early in their book. "Our technologies are racing ahead but many of our skills and organizations are lagging behind." For many workers, this lag predicts bad news. As intelligent machines improve, and the gap between machine and human abilities shrinks, employers are becoming increasingly likely to hire "new machines" instead of "new people." And when only a human will do, improvements in communications and collaboration technology are making remote work easier than ever before, motivating companies to outsource

key roles to stars—leaving the local talent pool underemployed.

This reality is not, however, universally grim. As Brynjolfsson and McAfee emphasize, this Great Restructuring is not *driving down* all jobs but is instead *dividing* them. Though an increasing number of people will lose in this new economy as their skill becomes automatable or easily outsourced, there are others who will not only survive, but thrive—becoming more valued (and therefore more rewarded) than before. Brynjolfsson and McAfee aren't alone in proposing this bimodal trajectory for the economy. In 2013, for example, the George Mason economist Tyler Cowen published *Average Is Over*, a book that echoes this thesis of a digital division. But what makes Brynjolfsson and McAfee's analysis particularly useful is that they proceed to identify three specific groups that will fall on the lucrative side of this divide and reap a disproportionate amount of the benefits of the Intelligent Machine Age. Not surprisingly, it's to these three groups that Silver, Hansson, and Doerr happen to belong. Let's touch on each of these groups in turn to better understand why they're suddenly so valuable.