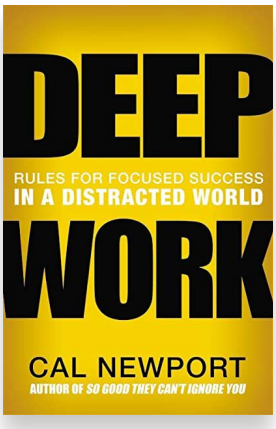

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Deep Work

THE SUMMARY

Grand Central Publishing/Piatkus 2016

Introduction

Deep work is composed of the 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. 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 smart phones 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 work week 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.

Published by Study Leadership, Inc. 872 New Britton Rd, Carol Stream, IL 60188

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.

Shallow work is composed of non-cognitively demanding, logistical-style tasks, often performed while distracted. These efforts do not create much new value in the world and are easy to replicate.

In an age of network tools, knowledge workers increasingly replace deep work with the shallow alternative by 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.

Deep work is not some nostalgic affectation of writers and early twentieth-century philosophers. It's 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. To remain valuable in our economy 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 deep work is valuable is that impacts of the digital network revolution cut both ways. If you can create something useful, its reachable audience (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. To succeed you have to produce the absolute best stuff you are capable of producing which is a task that requires depth.

Deep work is 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."

PART ONE: **THE IDEA**

Chapter 1: Deep Work is Valuable

Current economic thinking argues that the unprecedented growth and impact of technology are creating a massive restructuring of our economy. In this new economy, three groups will have a particular advantage: those who can work well and creatively with intelligent machines, those who

are the best at what they do, and those with access to capital. The question we must now face is the obvious one: How does one join these winners? At the risk of quelling your rising enthusiasm, I should first confess that I have no secret for quickly amassing capital. The other two winning groups, however, are accessible.

What's the secret to landing in these lucrative sectors of the widening digital divide? I argue that the following two core abilities are crucial: (1) The ability to quickly master hard things and, (2) The ability to produce at an elite level, in terms of both quality and speed.

Let's begin with the first ability. To start, we must remember that we've been spoiled by the intuitive and drop-dead-simple user experience of many consumer-facing technologies, like Twitter and the iPhone. These examples, however, are consumer products, not serious tools. Most of the intelligent machines driving the Great Restructuring are significantly more complex to understand and master. To join the group of those who can work well with these machines requires that you hone your ability to master hard things. These technologies change rapidly, so this process of mastering hard things never ends. You must be able to do it quickly, again and again. This ability to learn hard things quickly, of course, isn't just necessary for working well with intelligent machines. It also plays a key role in the attempt to become a superstar in just about any field including those that have little to do with technology.

Now consider the second core ability from the list shown earlier: producing at an elite level. If you want to become a superstar, mastering the relevant skills is necessary, but not sufficient. You must then transform that latent potential into tangible results that people value.

Having established two abilities that are fundamental to getting ahead in our new, technology-disrupted world, we can now ask the obvious follow-up question: how does one cultivate these core abilities? It's here that we arrive at a central thesis of this book. The two core abilities just described depend on your ability to perform deep work. If you haven't mastered this foundational skill, you'll struggle to learn hard things and to produce at an elite level.

To master a cognitively demanding task requires a deliberate form of practice. This brings us to the question of what deliberate practice actually requires. Its core components are usually identified as follows: (1) your attention is focused tightly on a specific skill you're trying to improve or an idea you're trying to master, and (2) you receive feedback so you can correct your approach to keep your attention exactly where it's most productive. The first component is of particular importance to our discussion, as it emphasizes that deliberate practice cannot exist alongside distraction, and that it instead requires uninterrupted concentration.

Scientists increasingly believe the answer to why deliberate practice works includes myelin which is a layer of fatty tissue that grows around neurons acting like an insulator allowing the cells to fire faster and cleaner. To understand the role of myelin in improvement, keep in mind that skills, be they

intellectual or physical, eventually reduce down to brain circuits. This new science of performance argues that you get better at a skill as you develop more myelin around the relevant neurons, allowing the corresponding circuit to fire more effortlessly and effectively. To be great at something is to be well myelinated.

By focusing intensely on a specific skill, you're forcing the specific relevant circuit to fire again and again in isolation. This repetitive use of a specific circuit triggers cells called oligodendrocytes to begin wrapping layers of myelin around the neurons in the circuits, effectively cementing the skill. The reason why it's important to focus intensely on the task at hand while avoiding distraction is because this is the only way to isolate the relevant neural circuit enough to trigger useful myelination. By contrast, if you're trying to learn a complex new skill (say, SQL database management) in a state of low concentration (perhaps you also have your Facebook feed open), you're firing too many circuits simultaneously and haphazardly to isolate the group of neurons you actually want to strengthen.

To learn hard things quickly, you must focus intensely without distraction. To learn, in other words, is an act of deep work. If you're comfortable going deep, you'll be comfortable mastering the increasingly complex systems and skills needed to thrive in our economy. If you instead remain one of the many for whom depth is uncomfortable and distraction ubiquitous, you shouldn't expect these systems and skills to come easily to you.

We need to also consider the concept of attention residue. When you switch from Task A to Task B, your attention doesn't immediately follow. A residue of your attention remains stuck thinking about the original task. This residue gets especially thick if your work on Task A was unbounded and of low intensity before you switched, but even if you finish Task A before moving on, your attention remains divided for a while.

The attention residue concept is telling because it implies that the common habit of working in a state of semi-distraction is potentially devastating to your performance. It might seem harmless to take a quick glance at your inbox every ten minutes or so, but that quick check introduces a new target for your attention. Even worse, by seeing messages that you cannot deal with at the moment (which is almost always the case), you'll be forced to turn back to the primary task with a secondary task left unfinished. The attention residue left by such unresolved switches dampens your performance.

To produce at your peak level, you need to work for extended periods with full concentration on a single task free from distraction. Put another way, the type of work that optimizes your performance is deep work. If you're not comfortable going deep for extended periods of time, it'll be difficult to get your performance to the peak levels of quality and quantity increasingly necessary to thrive professionally. Unless your talent and skills absolutely dwarf those of your competition, the deep workers among them will out produce you.

Chapter 2: Seep Work is Rare

It's bad enough that so many trends are prioritized ahead of deep work, but to add insult to injury, many of these trends actively decrease one's ability to go deep. Open offices, for example, might create more opportunities for collaboration, but they do so at the cost of "massive distraction," to quote the results of experiments conducted for a British TV special titled *The Secret Life of Office Buildings*. "If you are just getting into some work and a phone goes off in the background, it ruins what you are concentrating on," said the neuroscientist who ran the experiments for the show. "Even those you are not aware at the time. The brain responds to distractions."

Even though we abstractly accept that distraction has costs and depth has value, these impacts are difficult to measure. This isn't a trait unique to habits related to distraction and depth. Generally speaking, as knowledge work makes more complex demands of the labor force, it becomes harder to measure the value of an individual's efforts.

We should not, therefore, expect the bottom-line impact of depth-destroying behaviors to be easily detected. Such metrics fall into an opaque region resistant to easy measurement—a region I call the metric black hole. Of course, just because it's hard to measure metrics related to deep work doesn't automatically lead to the conclusion that businesses will dismiss it. But without clear metrics to support it, any business behavior is vulnerable to unstable whim and shifting forces and, in this volatile scrum, deep work has fared particularly poorly.

In a business setting, without clear feedback on the impact of various behaviors to the bottom line, we will tend toward behaviors that are easiest in the moment. I call this the principle of least resistance. There are at least two big reasons why this is true. The first concerns responsiveness to your needs. If you work in an environment where you can get an answer to a question, or a specific piece of information immediately when the need arises, your life is made easier. If you couldn't count on this quick response time you'd instead have to do more advance planning for your work, be more organized, and be prepared to put things aside for a while and turn your attention elsewhere while waiting for what you requested. All of this would make the day to day of your working life harder (even if it produced more satisfaction and a better outcome in the long term).

The second reason that a culture of connectivity makes life easier is that it creates an environment where it becomes acceptable to run your day out of your inbox by responding to the latest missive with alacrity while others pile up behind it, all the while feeling satisfyingly productive. If e-mail were to move to the periphery of your workday, you'd be required to deploy a more thoughtful approach to figuring out what you should be working on and for how long. This type of planning is hard.

The Principle of Least Resistance, protected from scrutiny by the metric black hole, supports work cultures that save us from the short-term discomfort of concentration and planning, at the expense of long-term satisfaction and the production of real value. By doing so, this principle drives us toward

shallow work in an economy that increasingly rewards depth. It's not, however, the only trend that leverages the metric black hole to reduce depth. We must also consider the always present and always vexing demand toward "productivity."

It seems that in today's business landscape, many knowledge workers, bereft of other ideas, are turning toward this old definition of productivity in trying to solidify their value in the otherwise bewildering landscape of their professional lives. Knowledge workers, I'm arguing, are tending toward increasingly visible busyness because they lack a better way to demonstrate their value. Let's give this tendency a name: Busyness as Proxy for Productivity. In the absence of clear indicators of what it means to be productive and valuable in their jobs, many knowledge workers turn back toward an industrial indicator of productivity which was doing lots of stuff in a visible manner.

This mind-set provides another explanation for the popularity of many depth-destroying behaviors. If you send and answer e-mails at all hours, if you schedule and attend meetings constantly, if you weigh in on instant message systems within seconds when someone poses a new question, or if you roam your open office bouncing ideas off all whom you encounter, then you seem busy in a public manner. If you're using busyness as a proxy for productivity, then these behaviors can seem crucial for convincing yourself and others that you're doing your job well.

We could, of course, eliminate this anachronistic commitment to busyness if we could easily demonstrate its negative impact on the bottom line, but the metric black hole enters the scene at this point and prevents such clarity. This potent mixture of job ambiguity and lack of metrics to measure the effectiveness of different strategies allows behavior that can seem ridiculous when viewed objectively to thrive in the increasingly bewildering psychic landscape of our daily work.

Chapter 3: Deep Work is Meaningful

The science writer Winifred Gallagher stumbled onto a connection between attention and happiness after an unexpected and terrifying event, a cancer diagnosis. Gallagher set out to better understand the role that attention (what we choose to focus on and what we choose to ignore) plays in defining the quality of our life. After five years of science reporting, she came away convinced that she was witness to a "grand unified theory" of the mind. "Like fingers pointing to the moon," she wrote, "other diverse disciplines from anthropology to education, behavioral economics to family counseling, similarly suggest that the skillful management of attention is the sine qua non of the good life and the key to improving virtually every aspect of your experience."

This concept upends the way most people think about their subjective experience of life. We tend to place a lot of emphasis on our circumstances, assuming that what happens to us (or fails to happen) determines how we feel. From this perspective, the small-scale details of how you spend your day aren't that important, because what matters are the large-scale outcomes, such as whether or not you get a promotion or move to that nicer apartment.

According to Gallagher, decades of research contradict this understanding. Our brains instead construct our worldview based on what we pay attention to. If you focus on a cancer diagnosis, you and your life become unhappy and dark, but if you focus instead on an evening martini, your life becomes more pleasant even though the circumstances in both scenarios are the same. As Gallagher summarizes, "Who you are, what you think, feel, and do, what you love—is the sum of what you focus on."

We can now step back and use Gallagher's grand theory to better understand the role of deep work in cultivating a good life. This theory tells us that your world is the outcome of what you pay attention to, so consider for a moment the type of mental world constructed when you dedicate significant time to deep endeavors. There's a gravity and sense of importance inherent in deep work. Gallagher's theory, therefore, predicts that if you spend enough time in this state, your mind will understand your world as rich in meaning and importance.

There is, however, a hidden but equally important benefit to cultivating rapt attention in your workday. Such concentration hijacks your attention apparatus, preventing you from noticing the many smaller and less pleasant things that unavoidably and persistently populate our lives. This danger is especially pronounced in knowledge work, which due to its dependence on ubiquitous connectivity generates a devastatingly appealing buffet of distraction. Most of this will, if given enough attention, leach meaning and importance from the world constructed by your mind.

Even if your colleagues are all genial and your interactions are always upbeat and positive, by allowing your attention to drift over the seductive landscape of the shallow, you run the risk of falling into another neurological trap identified by Gallagher. "Five years of reporting on attention have confirmed some home truths," Gallagher reports. "[Among them is the notion that] 'the idle mind is the devil's workshop'…when you lose focus, your mind tends to fix on what could be wrong with your life instead of what's right." A workday driven by the shallow, from a neurological perspective, is likely to be a draining and upsetting day, even if most of the shallow things that capture your attention seem harmless or fun.

The implication of these findings is clear. In work (and especially knowledge work), to increase the time you spend in a state of depth is to leverage the complex machinery of the human brain in a way that for several different neurological reasons maximizes the meaning and satisfaction you'll associate with your working life. "After running my tough experiment [with cancer] …I have a plan for living the rest of my life," Gallagher concludes in her book. "I'll choose my targets with care…then give them my rapt attention. In short, I'll live the focused life, because it's the best kind there is." We'd be wise to follow her lead.

Our second argument for why depth generates meaning comes from the work of one of the world's best-known psychologists, Mihaly Csikszentmihalyi. Among many breakthroughs, Csikszentmihalyi's work validates a theory he had been developing over the preceding decade. "The best moments

usually occur when a person's body or mind is stretched to its limits in a voluntary effort to accomplish something difficult and worthwhile." Csikszentmihalyi calls this mental state flow. At the time, this finding pushed back against conventional wisdom. Most people assumed (and still do) that relaxation makes them happy. We want to work less and spend more time in the hammock. But the results from Csikszentmihalyi's studies reveal that most people have this wrong.

"Ironically, jobs are actually easier to enjoy than free time, because like flow activities they have built-in goals, feedback rules, and challenges, all of which encourage one to become involved in one's work, to concentrate and lose oneself in it. Free time, on the other hand, is unstructured, and requires much greater effort to be shaped into something that can be enjoyed."

The connection between deep work and flow should be clear: Deep work is an activity well suited to generate a flow state (the phrases used by Csikszentmihalyi to describe what generates flow include notions of stretching your mind to its limits, concentrating, and losing yourself in an activity). And as we just learned, flow generates happiness. Combining these two ideas we get a powerful argument from psychology in favor of depth. This, ultimately, is the lesson to come away with from our brief foray into the world of experimental psychology. To build your working life around the experience of flow produced by deep work is a proven path to deep satisfaction.

It's here that some might respond that their knowledge work job cannot possibly become such a source of meaning because their job's subject is much too mundane. But this is flawed thinking that our consideration of traditional craftsmanship can help correct. Throughout most of human history, to be a blacksmith or a wheelwright wasn't glamorous. But this doesn't matter, as the specifics of the work are irrelevant. The meaning uncovered by such efforts is due to the skill and appreciation inherent in craftsmanship, not the outcomes of their work. Put another way, a wooden wheel is not noble, but it's shaping can be. The same applies to knowledge work. You don't need a rarified job; you need instead a rarified approach to your work.

PART TWO: **THE RULES**

Rule #1: Work Deeply

The key to developing a deep work habit is to move beyond good intentions and add routines and rituals to your working life designed to minimize the amount of your limited willpower necessary to transition into and maintain a state of unbroken concentration. If you suddenly decide, for example, in the middle of a distracted afternoon spent Web browsing, to switch your attention to a cognitively demanding task, you'll draw heavily from your finite willpower to wrest your attention away from the online shininess. Such attempts will therefore frequently fail. On the other hand, if you deployed smart routines and rituals, perhaps a set time and quiet location used for your deep tasks each afternoon, you'd require much less willpower to start and keep going. In the long run, you'd therefore succeed with these deep efforts far more often.

Deep Work

You could just try to make deep work a priority. But supporting this decision with the strategies that follow, or strategies of your own devising that are motivated by the same principles, will significantly increase the probability that you succeed in making deep work a crucial part of your professional life. You need your own philosophy for integrating deep work into your professional life. You must be careful to choose a philosophy that fits your specific circumstances, as a mismatch here can derail your deep work habit before it has a chance to solidify.

The Monastic Philosophy of Deep Work Scheduling. This philosophy attempts to maximize deep efforts by eliminating or radically minimizing shallow obligations. Practitioners of the monastic philosophy tend to have a well-defined and highly valued professional goal that they're pursuing, and the bulk of their professional success comes from doing this one thing exceptionally well. It's this clarity that helps them eliminate the thicket of shallow concerns that tend to trip up those whose value proposition in the working world is more varied.

The Bimodal Philosophy of Deep Work Scheduling. This philosophy asks that you divide your time, dedicating some clearly defined stretches to deep pursuits and leaving the rest open to everything else. During the deep time, the bimodal worker will act monastically by seeking intense and uninterrupted concentration. During the shallow time, such focus is not prioritized. This division of time between deep and open can happen on multiple scales. For example, on the scale of a week, you might dedicate a four-day weekend to depth and the rest to open time. Similarly, on the scale of a year, you might dedicate one season to contain most of your deep stretches (as many academics do over the summer or while on sabbatical).

The bimodal philosophy believes that deep work can produce extreme productivity, but only if the subject dedicates enough time to such endeavors to reach maximum cognitive intensity which is when real breakthroughs occur. This is why the minimum unit of time for deep work in this philosophy tends to be at least one full day. To put aside a few hours in the morning, for example, is too short to count as a deep work stretch for an adherent of this approach. At the same time, the bimodal philosophy is typically deployed by people who cannot succeed in the absence of substantial commitments to non-deep pursuits.

The Rhythmic Philosophy of Deep Work Scheduling. This philosophy argues that the easiest way to consistently start deep work sessions is to transform them into a simple regular habit. The goal, in other words, is to generate a rhythm for this work that removes the need for you to invest energy in deciding if and when you're going to go deep. The chain method is a good example of the rhythmic philosophy of deep work scheduling because it combines a simple scheduling heuristic (do the work every day), with an easy way to remind yourself to do the work, i.e. the big red Xs on the calendar.

Another common way to implement the rhythmic philosophy is to replace the visual aid of the chain method with a set starting time that you use every day for deep work. In much the same way that

maintaining visual indicators of your work progress can reduce the barrier to entry for going deep, eliminating even the simplest scheduling decisions, such as when during the day to do the work, also reduces this barrier.

The Journalistic Philosophy of Deep Work Scheduling. This name is a nod to the fact that journalists are trained to shift into a writing mode on a moment's notice, as is required by the deadline-driven nature of their profession. This approach is not for the deep work novice. The ability to rapidly switch your mind from shallow to deep mode doesn't come naturally. Without practice, such switches can seriously deplete your finite willpower reserves. This habit also requires a sense of confidence in your abilities or a conviction that what you're doing is important and will succeed. This type of conviction is typically built on a foundation of existing professional accomplishment.

To make the most out of your deep work sessions, build strict rituals. Great minds didn't deploy rituals to be weird; they did so because success in their work depended on their ability to go deep, again and again. There's no one correct deep work ritual. The right fit depends on both the person and the type of project pursued, but there are some general questions that any effective ritual must address:

Where will you work and for how long? Your ritual needs to specify a location for your deep work efforts. If it's possible to identify a location used only for depth, for instance, a conference room or quiet library, the positive effect can be even greater. Regardless of where you work, be sure to also give yourself a specific time frame to keep the session a discrete challenge and not an open-ended slog.

How will you work once you start to work? Your ritual needs rules and processes to keep your efforts structured. For example, you might institute a ban on any Internet use, or maintain a metric such as words produced per twenty-minute interval to keep your concentration honed. Without this structure, you'll have to mentally litigate again and again what you should and should not be doing during these sessions and keep trying to assess whether you're working sufficiently hard. These are unnecessary drains on your willpower reserves.

How will you support your work? Your ritual needs to ensure your brain gets the support it needs to keep operating at a high level of depth. For example, the ritual might specify that you start with a cup of good coffee, or make sure you have access to enough food of the right type to maintain energy, or integrate light exercise such as walking to help keep the mind clear. To maximize your success, you need to support your efforts to go deep. At the same time, this support needs to be systematized so that you don't waste mental energy figuring out what you need in the moment.

These questions will help you get started in crafting your deep work ritual. But keep in mind that finding a ritual that sticks might require experimentation, so be willing to work at it. I assure you that the effort's worth it. Once you've evolved something that feels right, the impact can be significant.

Rule #2: Embrace Boredom

The ability to concentrate intensely is a skill that must be trained. This idea might sound obvious once it's pointed out, but it represents a departure from how most people understand such matters. In my experience, it's common to treat undistracted concentration as a habit like flossing. It's something that you know how to do and know is good for you, but that you've been neglecting due to a lack of motivation. This mind-set is appealing because it implies you can transform your working life from distracted to focused overnight if you can simply muster enough motivation. But this understanding ignores the difficulty of focus and the hours of practice necessary to strengthen your "mental muscle."

There is, however, an important corollary to this idea. Efforts to deepen your focus will struggle if you don't simultaneously wean your mind from a dependence on distraction. Much in the same way that athletes must take care of their bodies outside of their training sessions, you'll struggle to achieve the deepest levels of concentration if you spend the rest of your time fleeing the slightest hint of boredom.

We can find evidence for this claim in the research of Clifford Nass, the late Stanford communications professor who was well known for his study of behavior in the digital age. Among other insights, Nass's research revealed that constant attention switching online has a lasting negative effect on your brain. Here's Nass summarizing these findings in a 2010 interview with NPR's Ira Flatow: "So, we have scales that allow us to divide up people into people who multitask all the time and people who rarely do, and the differences are remarkable. People who multitask all the time can't filter out irrelevancy. They can't manage a working memory. They're chronically distracted. They initiate much larger parts of their brain that are irrelevant to the task at hand...they're pretty much mental wrecks."

Once your brain has become accustomed to on-demand distraction, Nass discovered, it's hard to shake the addiction even when you want to concentrate. To put this more concretely: if every moment of potential boredom in your life like having to wait five minutes in line, or sit alone in a restaurant until a friend arrives, is relieved with a quick glance at your smart phone, then your brain has likely been rewired to a point where it's not ready for deep work even if you regularly schedule time to practice this concentration. Many assume that they can switch between a state of distraction and one of concentration as needed, but this assumption is optimistic. Once you're wired for distraction, you crave it.

Instead of scheduling the occasional break from distraction so you can focus, you should instead schedule the occasional break from focus to give in to distraction. To make this suggestion more concrete, let's make the simplifying assumption that Internet use is synonymous with seeking distracting stimuli. Similarly, let's consider working in the absence of the Internet to be synonymous with more focused work.

With these rough categorizations established, the strategy works as follows: schedule in advance when you'll use the Internet, and then avoid it altogether outside these times. I suggest that you

keep a notepad near your computer at work. On this pad, record the next time you're allowed to use the Internet. Until you arrive at that time, absolutely no network connectivity is allowed, no matter how tempting.

The idea motivating this strategy is that the use of a distracting service does not, by itself, reduce your brain's ability to focus. It's instead the constant switching from low-stimuli/high-value activities to high-stimuli/low-value activities, at the slightest hint of boredom or cognitive challenge, that teaches your mind to never tolerate an absence of novelty. This constant switching can be understood analogously as weakening the mental muscles responsible for organizing the many sources vying for your attention. By segregating Internet use (and therefore segregating distractions) you're minimizing the number of times you give in to distraction, and by doing so you let these attention-selecting muscles strengthen.

While the basic idea behind this strategy is straightforward, putting it into practice can be tricky. To help you succeed, here are three important points to consider.

Point #1: This strategy works even if your job requires lots of Internet use, and/or prompt e-mail replies. If you're required to spend hours every day online or answer e-mails quickly, that's fine. This simply means that your Internet blocks will be more numerous than those of someone whose job requires less connectivity. The total number or duration of your Internet blocks doesn't matter nearly as much as making sure that the integrity of your offline blocks remains intact.

Point #2: Regardless of how you schedule your Internet blocks, you must keep the time outside these blocks absolutely free from Internet use. This objective is easy to state in principle but quickly becomes tricky in the messy reality of the standard workday. An inevitable issue you'll face when executing this strategy is realizing early on in an offline block that there's some crucial piece of information online that you need to retrieve to continue making progress on your current task. If your next Internet block doesn't start for a while, you might end up stuck. The temptation in this situation is to quickly give in, look up the information, and then return to your offline block. You must resist this temptation! The Internet is seductive. You may think you're just retrieving a single key e-mail from your inbox, but you'll find it hard to not glance at the other "urgent" messages that have recently arrived. It doesn't take many of these exceptions before your mind begins to treat the barrier between Internet and offline blocks as permeable and diminishes the benefits of this strategy.

Point #3: Scheduling Internet use at home as well as at work can further improve your concentration training. If you find yourself glued to a smart phone or laptop through-out your evenings and weekends, then it's likely that your behavior outside of work is undoing many of your attempts during the workday to rewire your brain (which makes little distinction between the two settings). In this case, I would suggest that you maintain the strategy of scheduling Internet use even after the workday is over.

One place where this strategy becomes particularly difficult outside work is when you're forced to wait (for example, standing in line at a store). It's crucial in these situations that if you're in an offline block, you simply gird yourself for the temporary boredom, and fight through it with only the company of your thoughts. To simply wait and be bored has become a novel experience in modern life, but from the perspective of concentration training, it's incredibly valuable.

Rule #3: Quit Social Media

If you can find some extra benefit in using a service like Facebook, then why not use it? I call this way of thinking the any-benefit mind-set, as it identifies any possible benefit as sufficient justification for using a network tool. The problem with this approach, of course, is that it ignores all the negatives that come along with the tools in question. These services are engineered to be addictive, robbing time and attention from activities that more directly support your professional and personal goals (such as deep work).

In the context of network tools, we've become comfortable with the any-benefit mind-set, but if we zoom out and consider this mind-set in the broader context of skilled labor, it suddenly seems a bizarre approach to choosing tools. Once you put aside the revolutionary rhetoric surrounding all things Internet in which you're either fully committed to "the revolution" or a curmudgeon, you'll soon realize that network tools are not exceptional. They're tools, no different from a blacksmith's hammer or an artist's brush, used by skilled laborers to do their jobs better (and occasionally to enhance their leisure).

I propose that if you're a knowledge worker, especially one interested in cultivating a deep work habit, you should treat your tool selection with the same level of care as other skilled workers, such as farmers. Following is my attempt to generalize this assessment strategy. I call it the craftsman approach to tool selection, a name that emphasizes that tools are ultimately aids to the larger goals of one's craft.

The Craftsman Approach to Tool Selection: Identify the core factors that determine success and happiness in your professional and personal life. Adopt a tool only if its positive impacts on these factors substantially outweigh its negative impacts. Notice that this craftsman approach to tool selector stands in opposition to the any-benefit approach. Whereas the any-benefit mind-set identifies any potential positive impact as justification for using a tool, the craftsman variant requires that these positive impacts affect factors at the core of what's important to you and that they outweigh the negatives.

The first step of this strategy is to identify the main high-level goals in both your professional and your personal life. If you have a family, for example, then your personal goals might involve parenting well and running an organized household. In the professional sphere, the details of these goals depend on what you do for a living. The key is to keep the list limited to what's most important and

to keep the descriptions suitably high-level. (If your goal includes a specific target such as "to reach a million dollars in sales", or "to publish a half-dozen papers in a single year," then it's too specific for our purposes here). When you're done you should have a small number of goals for both the personal and professional areas of your life.

Once you've identified these goals, list for each the two or three most important activities that help you satisfy the goal. These activities should be specific enough to allow you to clearly picture doing them. On the other hand, they should be general enough that they're not tied to a one-time outcome. A good activity in this context would be something like "regularly read and understand the cutting-edge results in my field."

The next step in this strategy is to consider the network tools you currently use. For each such tool, go through the key activities you identified and ask whether the use of the tool has a substantially positive impact, a substantially negative impact, or little impact on your regular and successful participation in the activity. Now comes the important decision which is to keep using this tool only if you concluded that it has substantial positive impacts and that these outweigh the negative impacts.

If you give your mind something meaningful to do throughout all your waking hours, you'll end the day more fulfilled, and begin the next one more relaxed. If you instead allow your mind to bathe for hours in semiconscious and unstructured Web surfing, you will never learn to truly relax.

Rule # 4: Drain the Shallows

The value of deep work vastly outweighs the value of shallow, but this doesn't mean that you must quixotically pursue a schedule in which all of your time is invested in depth. For one thing, a nontrivial amount of shallow work is needed to maintain most knowledge work jobs. You might be able to avoid checking your e-mail every ten minutes, but you won't likely last long if you never respond to important messages. In this sense, we should see the goal of this rule as taming shallow work's footprint in your schedule, not eliminating it.

Then there's the issue of cognitive capacity. Deep work is exhausting because it pushes you toward the limit of your abilities. Performance psychologists have extensively studied how much such efforts can be sustained by an individual in a given day. In their seminal paper on deliberate practice, Anders Ericsson and his collaborators survey these studies. They note that for someone new to such practice, an hour a day is a reasonable limit. For those familiar with the rigors of such activities, the limit expands, to something like four hours, but rarely more.

The implication is that once you've hit your deep work limit in a given day, you'll experience diminishing rewards if you try to cram in more. Shallow work doesn't become dangerous until after you add enough to begin to crowd out your bounded deep efforts for the day. At first, this caveat might seem optimistic. The typical workday is eight hours. The most adept deep thinker cannot

spend more than four of these hours in a state of true depth. It follows that you can safely spend half the day wallowing in the shallows without adverse effect. The danger missed by this analysis is how easily this amount of time can be consumed, especially once you consider the impact of meetings, appointments, calls, and other scheduled events. For many jobs, these time drains can leave you with surprisingly little time left for solo work.

We spend much of our day on autopilot not giving much thought to what we're doing with our time. This is a problem. It's difficult to prevent the trivial from creeping into every corner of your schedule if you don't face, without flinching, your current balance between deep and shallow work. Then you must adopt the habit of pausing before action and asking, "What makes the most sense right now?"

Here's my suggestion: At the beginning of each workday, turn to a new page of lined paper in a notebook you dedicate to this purpose. Down the left-hand side of the page, mark every other line with an hour of the day, covering the full set of hours you typically work. Now comes the important part which is to divide the hours of your workday into blocks and assign activities to the blocks. There might be time blocks for lunch or relaxation breaks. To keep things reasonably clean, the minimum length of a block should be thirty minutes (i.e., one line on your page). This means, for example, that instead of having a unique small box for each small task on your plate for the day, you can batch similar things into more generic task blocks. You might find it useful, in this case, to draw a line from a task block to the open right-hand side of the page where you can list out the full set of small tasks you plan to accomplish in that block.

When you're done scheduling your day, every minute should be part of a block. You have, in effect, given every minute of your workday a job. Now as you go through your day, use this schedule to guide you. It's here, of course, that most people will begin to run into trouble. Two things can (and likely will) go wrong with your schedule once the day progresses. The first is that your estimates will prove wrong. You might put aside two hours for writing a press release, for example, and in reality, it takes two and a half hours. The second problem is that you'll be interrupted and new obligations will unexpectedly appear on your plate. These events will also break your schedule.

That is okay. If your schedule is disrupted, you should at the next available moment, take a few minutes to create a revised schedule for the time that remains in the day. On some days, you might rewrite your schedule half a dozen times. Don't despair if this happens. Your goal is not to stick to a given schedule at all costs. It's instead to maintain, at all times, a thoughtful say in what you're doing with your time going forward, even if these decisions are reworked again and again as the day unfolds.

I would go so far as to argue that someone following this combination on comprehensive scheduling and a willingness to adapt or modify the plan as needed will likely experience more creative insights than someone who adopts a more traditionally "spontaneous" approach where the day is left open and unstructured. Without structure, it's easy to allow your time to devolve into the shallow such as

email, social media, Web surfing. This type of shallow behavior, though satisfying in the moment, is not conducive to creativity. With structure, on the other hand, you can ensure that you regularly schedule blocks to grapple with a new idea, or work deeply on something challenging, or brainstorm for a fixed period. If you're willing to abandon your plan when an innovative idea arises, you've shown you're just as well suited as the distracted creative to follow up when the muse strikes.

Conclusion

A commitment to deep work is not a moral stance and it's not a philosophical statement. It is instead a pragmatic recognition that the ability to concentrate is a skill that gets valuable things done. Deep work is important not because distraction is evil, but because it enabled Bill Gates to start a billion-dollar industry in less than a semester.

The deep life, of course, is not for everybody. It requires hard work and drastic changes to your habits. For many, there's a comfort in the artificial busyness of rapid e-mail messaging and social media posturing, while the deep life demands that you leave much of that behind. There's also an uneasiness that surrounds any effort to produce the best things you're capable of producing, as this forces you to confront the possibility that your best is not (yet) that good.

But if you're willing to sidestep these comforts and fears, and instead struggle to deploy your mind to its fullest capacity to create things that matter, then you'll discover that depth generates a life rich with productivity and meaning. Writer Winifred Gallagher said, "I'll live the focused life, because it's the best kind there is." I agree. So does Bill Gates. I hope you'll agree too.