AN OPEN LETTER TO MY PHONE

Dear Phone,

I still remember the first time we met. You were an expensive new gadget available only through AT&T; I was a person who could recite her best friends' phone numbers from memory. When you were launched, I'll admit that your touch screen caught my eye. But I was too busy trying to type a text message on my flip phone to start something new.

Then I held you in my hand, and things started moving fast. It wasn't long before we were doing everything together: taking walks, having lunch with friends, going on vacations. At first it seemed strange that you wanted to come with me to the bathroom—but today it's just another formerly private moment for us to share.

We're inseparable now, you and I. You're the last thing I touch before I go to bed and the first thing I reach for in the morning. You remember my doctors' appointments, my shopping lists, and my anniversary. You

provide GIFs and festive emoji that I can send to friends on their birthdays, so that rather than feeling hurt that I'm texting instead of calling, they think, "Ooh, animated balloons!" You make it possible for my avoidance strategies to be construed as thoughtfulness, and for this I am grateful.

Phone, you are amazing. I mean that literally: not only do you allow me to travel across time and space, but I am amazed by how many nights I've stayed up three hours past my bedtime staring at your screen. I can't count the times we've gone to bed together and I've had to pinch myself to see if I'm dreaming—and believe me, I want to be dreaming, because ever since we met, something seems to be messing with my sleep. I cannot believe all of the gifts you've given me, even though many of those gifts are technically things that I bought for myself online while you and I were "relaxing" in a bath.

Thanks to you, I never need to worry about being alone. Any time I'm anxious or upset, you offer a game or newsfeed or viral panda video to distract me from my feelings. And how about boredom? Just a few years ago, I'd often find myself with no way to pass the time other than to daydream, or maybe think. There were even times when I'd get into the elevator at the office and have nothing to look at but the other passengers. For six floors!

These days, I can't even remember the last time I was bored. Then again, I can't remember a lot of things. Like, for example, the last time my friends and I made it through a meal without anyone pulling out a phone. Or how it felt to be able to read an entire magazine article in one sitting. Or what I said in the paragraph above this one. Or whose text I was looking at right before I walked into that pole.

Or whatever. My point is, I feel like I can't live without you.

And that's why it's so hard for me to tell you that we need to break up.

INTRODUCTION

Let's get something clear from the start: the point of this book is not to get you to throw your phone under a bus. Just as breaking up with a person doesn't mean that you're swearing off all human relationships, "breaking up" with your phone doesn't mean that you're trading in your touch screen for a rotary dial.

After all, there are lots of reasons for us to love our smartphones. They're cameras. They're DJs. They help us keep in touch with family and friends, and they know the answers to every piece of trivia we could ever think to ask. They tell us about the traffic and the weather; they store our calendars and our contact lists. Smartphones are amazing tools.

But something about smartphones also makes *us* act like tools. Most of us find it hard to get through a meal or a movie or even a stoplight without pulling out our phones. On the rare occasions when we accidentally leave them at home or on our desk, we reach for them anyway, and feel anxious, again and again, each time we realize they're not there. If you're like most people, your phone is within arm's reach right this very second, and the mere mention of it is making you want to check something. Like the news. Or your texts. Or your email. Or the weather. Or, really, anything at all.

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YOUR PHONE IS KILLING YOUR ATTENTION SPAN

> Multi-screening trains consumers to be less effective at filtering out distractions—they are increasingly hungry for something new. This means more opportunities to hijack attention.
>
> —Consumer Insights, Microsoft Canada, 2015

THE FIRST THING TO UNDERSTAND about our attention spans is that distraction is our default. Human beings are naturally distractible, because in nature, things are often trying to kill us. We want our attention to be drawn to changes in our environments, because those changes might indicate a threat.

But why is staring at our phones so much more distracting and compelling than, say, scanning our surroundings for tigers? In *The Distracted Mind*, neuroscientist Adam Gazzaley and psychologist Larry Rosen suggest that it's because our phones (and, for that matter, the internet) satisfy another evolutionary quirk: our desire for information.

"Human beings seem to exhibit an innate drive to forage for information in much the same way that other animals are driven to forage for food," write Gazzaley and Rosen. "This 'hunger' is now fed to an extreme degree by modern technological advances that deliver highly accessible information."

In other words, our brains both prefer and are programmed to seek out and be distracted by new information. And that's exactly what our phones encourage them to do.

ONE OF THE REASONS OUR brains prefer distraction to concentration is that concentration requires our brains to do two difficult things at once.

The first is to choose what to pay attention to. That job falls to a part of the brain called the prefrontal cortex, which is responsible for so-called executive (or "top-down") functions, such as decision making and self-control.

In many ways, the prefrontal cortex is what makes us human. If we didn't have control over our attention, we couldn't think abstract and complicated thoughts.

But just like a muscle, the prefrontal cortex can become tired if we ask it to make too many decisions—a condition known as "decision fatigue." When our prefrontal cortex becomes tired, our focus wavers and our minds wander. We lose our ability to distinguish between what's important to pay attention to and what's not. The more information we're presented with, the more of a problem this becomes. (As a relatively new part of our brain, the prefrontal cortex is also one of the weakest. Under stressful conditions, it tends to freak out and hand the reins to more primitive areas of our brains—which is not a good thing, considering that we often reach for our phones out of stress.)

The second task required for concentration doesn't get as much, well, attention. But it's just as important—if not more so: we need to be able to ignore distractions.

Our brains are exposed to an onslaught of stimulation even *without* man-made distractions like phones (or interior distractions like thoughts). Sights, tastes, smells, sounds, textures—our senses are constantly presenting us with new information to act on and absorb.

In a way, this makes our ability to ignore distractions even more impressive than our ability to pay attention. We can pay attention to really only one thing at a time, but there is an infinite amount of sensory information that doing so might require us to block.

Unsurprisingly, ignoring distractions is tiring work, and the less we practice it, the worse at it we become. When our strength is exhausted and we can no longer block extraneous information, we lose our focus. We go back to our default state of distraction.

IF YOU'VE NOTICED THAT READING a book or printed newspaper doesn't feel the same as reading the same material on your phone or computer, you're not crazy. It's *not* the same.

When we read a book or the paper, most of the distractions we encounter are external—a barking dog, or the sound of a vacuum cleaner. This makes it relatively easy for our brains to decide what's important and to ignore what's not.

This also leaves our brains with plenty of available bandwidth to think about and absorb what we're reading. When we read words in print—which is to say, without links or ads—we primarily activate the brain areas associated with absorbing and understanding information.

But when we read on a phone or computer, links and ads are everywhere. (For now at least, most ebooks are a glorious exception.) From the point of view of our attention spans, this is problematic in at least three ways.

First, every time we encounter a link, our brains must make a split-second decision about whether to click on it. These decisions are so frequent and tiny that we often don't even notice that they're happening. But we can't make split-second decisions and think deeply at the same time—the two acts use different and competing brain regions. Every decision, no matter how tiny or subconscious, pulls our attention away from what we are reading. This in turn makes it harder to absorb the content of what we're reading—let alone to think about it critically, or remember it later.

Second, unlike a dog barking in the background, online distractions are embedded in what we're trying to focus on. This makes it very difficult for our brains to distinguish between what to pay attention to and what to ignore. Trying to absorb the meaning of a word without noticing its link is like trying to count a dog's whiskers while the dog is licking your face: nearly impossible, and almost definitely unpleasant.

And third, when mental fatigue causes us to give in to our brains' natural preference for distraction—whether it's by falling for clickbait or swiping over to social media—we reinforce the same mental circuits that made it hard to sustain our focus to begin with. We get better at *not* staying focused.

The result is that, the more we read online, the more we teach our brains to skim. This can be a useful skill to hone, especially when we're constantly faced with such information overload. But it becomes a problem if skimming becomes our default—because the better we become at skimming, the worse we get at reading and thinking more deeply. And the harder it is for us to focus on just one thing.

UNFORTUNATELY, THE WORSE OUR FOCUS gets, the more valuable we become. Just as social media companies make money by stealing (and then selling) your attention, informational websites make money by distracting you. Even subscription-based sites, such as newspapers, depend on page views and click-throughs for revenue. That's why online articles contain so many links and why slideshows are so common. Focus isn't profitable. Distraction is.

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YOUR PHONE MESSES WITH YOUR MEMORY

What you have discovered is a recipe not for memory, but for reminder.

—Plato, *Phaedrus*

OUR BRAINS HAVE TWO PRIMARY forms of memory—short-term and long-term—and our phones affect both.

Long-term memory is often described as being like a filing cabinet. According to this analogy, when you want to remember something, your brain does a quick search of its archives and retrieves that one specific memory from the folder in which it was stored, leaving the rest of the files untouched.

But the quality of light is just one way that our phones affect our sleep cycles. Most of the things we do on our phones—reading the news, playing games—are stimulating activities. Imagine how difficult it would be to doze off if all of the people you follow on social media were in the room with you, the television was blaring in the background, and several friends were having a political debate. That's essentially what you're doing when you bring your phone into bed with you.

Phones' effects on sleep are particularly concerning when you consider the health consequences of chronic fatigue, which include increased risk of obesity, diabetes, cardiovascular disease, and even early death.

Indeed, according to the Division of Sleep Medicine at Harvard Medical School, even short-term sleep deprivation "can affect judgment, mood, ability to learn and retain information, and may increase the risk of serious accidents and injury." When you're tired, it's harder for your brain to filter out distractions. You have poorer self-control. You're less able to tolerate frustration. And your brain has difficulty deciding what's important to pay attention to and what's not.

And short-term sleep deprivation doesn't require you to have one crazy night. Even just a week and a half's worth of sleeping six hours a night (instead of seven to nine) can, according to the Division of Sleep Medicine, "result in the same level of impairment on the tenth day as being awake for the previous 24 hours straight"—which is to say that it can induce "impairments in performance equivalent to those induced by a blood-alcohol level of 0.10 percent, beyond the legal limit for alcohol intoxication in the United States."

Oh, and if you're thinking that this obviously does not apply to you, keep in mind that the more sleep-deprived people are, the more vigorously they may insist that they are not—possibly because their ability to judge their own mental state has been impaired.

YOUR PHONE AND FLOW

Flow is a term coined by the psychologist Mihaly Csikszentmihalyi to describe the feeling you get when you're completely and totally engaged in an experience. People can experience flow when they're singing, playing sports, or even working. When you're in flow, you're so present in the moment that you feel as if you're outside of time. The line between your experience and your mind gets erased. You're un-self-conscious. You're entirely absorbed. You're in the zone. Flow leads to the sorts of moments and memories that make life seem rich.

If you're distracted, you can't immerse yourself in an experience—which means that you can't, by definition, get into flow. And since our phones are tools of distraction, this means that the more we spend on our phones, the less likely we are to experience it.

YOUR PHONE AND CREATIVITY

Creativity—that is, the process of coming up with new ideas—also requires relaxation and mental space, both of which are hard to come by when we're on our phones. Creativity requires you to be well rested—as Judith Owens, director of Sleep Medicine at Children's National Medical

Center in Washington, D.C., has said, "Sleep deprivation can affect memory, creativity, verbal creativity, and even things like judgment and motivation." And creativity is often sparked by boredom, which is another mental state that our phones are great at helping us avoid.

To me, the importance of boredom to creativity is summed up by this quote from Lin-Manuel Miranda, the award-winning, crazy-talented genius behind *Hamilton: An American Musical*: "I remember when I was a kid, I was in a three-hour car ride with my best friend, Danny," Miranda told an interviewer for *GQ*. "Before we got in the car, he grabbed a stick from his front yard, and the entire drive home he made up games with this . . . *stick*. Sometimes the stick was a man, sometimes a piece in a larger game, or he'd give it voices, pretend the stick was a telephone. I remember sitting there next to him with my Donkey Kong thinking, *Dude, you just entertained yourself for three hours . . . with a f-ing* twig! And I thought to myself, *Wow, I have to raise my imagination game.*"

When I read this, part of me thinks that I should be spending more time playing with sticks. And another, more cynical part of me thinks, "I bet someone is going to make an app for that."

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HOW TO TAKE BACK YOUR LIFE

We learn to stay with the uneasiness, the tightening, the itch of [our cravings]. We train in sitting still with our desire to scratch. This is how we learn to stop the chain reaction of habitual patterns that otherwise will rule our lives.

—Pema Chödrön

SO HERE'S THE GOOD NEWS: We can undo many of our phones' negative effects. We can rebuild our attention spans. We can get our focus back. We can reduce our stress, improve our memories, and reclaim a good night's sleep. We can change our relationships with our phones and take back our lives from our devices. That's what the next part of the book—"The Breakup"—is designed to help you do. Before we move on, though, let's talk a bit about the science and philosophy behind the breakup's steps.