HOW THE PROMISE OF TECHNOLOGY HAS MUTATED INTO ADDICTION AND DESPAIR, AND WHAT TO DO ABOUT IT

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When you look back on your life, what would you change?

Many of you might wish you had spent more time with family and friends. Some of you might wish you had spent more time outside or doing things you love. The good news is, you can actually make a simple change that will grant you these wishes, and probably many other wishes you have.

Change the way you interact with technology.

What does that mean? Well, let me ask the question another way. How many of you, when looking back, wish you had spent even more time on social media? More time on Slack or answering emails? More time aimlessly surfing YouTube looking at random cat tricks or strange but useless videos? More time looking at the perfect vacation pictures of high school acquaintances you don't really care that much about? More time checking texts for work late at night?

The way we use technology is, far too often, broken, brain dead, and utterly dehumanizing. It is negatively impacting our happiness. And it needs to change. This is not to say we can or should pull the plug. We are past a point where we can comfortably exist in society without technology.

Let's be clear. Technology has given us so many gifts. Any information we need, Google lets us find within seconds. Facebook, Instagram, and Snapchat let us share our lives with distant friends and family. Our smartphones can be our running coaches, our libraries, and our meditation gurus. We no longer need to wrestle with paper maps; smartphones read detailed directions to us aloud while mapping the routes on their screens, even quickly rerouting us should we diverge from the plotted course. Uber and Lyft have made summoning a car as simple as pressing a button. Amazon can deliver ordered items within a day (and, in some cities, within two hours). Netflix streams unlimited movies to our screens for less than the cost of going to a single film at the cinema.

In the workplace, technology has forever altered our lives. Email allows us to communicate instantaneously and to maintain a permanent searchable record of our work. Slack, Facebook Messenger, and other instant-messaging applications let us chat and share files with work colleagues, and they build virtual watercoolers around which remote workers can gather to share stories, jokes, or GIFs.

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When we create presentations or need information, we can sift through millions of available (and often free) online images. Or we can watch videos that teach us new skills for nearly any task—from relighting a water heater's pilot flame to using the most popular computer programs for artificial intelligence (AI). We get nearly all of the news we want, at any time, for free.

Traveling on planes, we face flat-panel displays that let us flick from channel to channel or from movie to movie, keeping boredom at bay. We ride on elevators facing televisions broadcasting the news and weather, just in case we were unhappy about wasting the 30 seconds ascending or descending. Dynamic digital billboards now turn roadsides, bus stops, and city streets into carousels of capitalism. And virtual reality promises endless fully immersive adventures, enabling any of us to travel the world without moving from our chairs. The wonders never cease.

Yet a growing volume of research finds that Americans are unhappier now than they have been at any time in the past decade—and are becoming unhappier. And we as a generation risk looking back and realizing that we frittered away huge chunks of our lives on mindless and obsessive activities and behaviors that contributed to our misery.

Psychologists raise the alarm over an epidemic of loneliness consuming society. Rates of suicide have risen markedly in every state over the last 30 years, according to the U.S. Centers for Disease Control. Those maps back nearly precisely to the entrance of the Internet and ubiquitous technology. This is true not only in adults but also in the young. By most surveys, today's teenagers are less happy than teenagers of previous generations.They are also less likely to leave the house, hold a job, and do things that were once rites of passage. They spend less time outside and are less connected to their parents—who increasingly compound the problem be being technologically unavailable or on their smartphones nearly all the time. (In fact, writer Clive Thompson makes a strong case in Wired that GenX'ers are far more addicted to their phones than Millenials.

At every turn, the core components of our happiness are under attack by technology. Take physical activity and play. Study after study has associated physical activity with greater happiness and well-being. Yet technology has reduced us to record levels of inactivity; we opt for the virtual worlds, the digital crack of videos, games, and social media (and work). Time spent consuming of digital media has grown steadily, hitting nearly 6 hours per day in 2017. There are only so many hours in the day and if we spend them glued to our phones it means we are not walking in the woods, surfing, or playing in the park.

Our attraction to our devices is so powerful that it radically diminishes our executive functions and ability to judge what is safe and what is not. Smartphone addiction has made distracted driving epidemic; nearly 3,500 people died and 391,000 were injured in vehicle accidents involving distracted drivers in 2015, and such accidents are becoming more common. People who text while driving are, by some measures, 23 times more likely to crash, and people who talk on their cell phones are likewise far more likely to cause an accident. In the face of over-whelming evidence, between one-third and one-half of all drivers continue to use their phones while they drive. So strong is the hold technology has on our executive brains that it's almost akin to smoking cigarettes. And surely dying while texting counts as a form of hacking away our happiness?

Then there is the attack of tech on the most core pillars of our health, our sleep. More than one-third of the U.S. population gets less than the recommended minimum seven hours of sleep a night, with many millions getting less than six hours. Most smartphone owners sleep with their devices within arm's reach, facilitating this collective suicidal tendency to-wards sleep deprivation. Some of the best sleep researchers in the world consider incessant exposure to technology a likely leading cause. Waking up, too, and seeing a screen full of red notification dots or emails from foreign colleagues, sends primeval signals to our brain to wake up, while also tapping into our well-worn neural pathways that teach us to feel a need to respond, day or night.

Meanwhile, a growing body of research suggests that late-night exposure to the intense blue light emitted by most computer and smartphone screens impairs production of melatonin, a chemical essential to sound sleep. It's not just texting, email, and social media, either. Binge watching has also been associated with poor sleep quality, and reduced hours in slumber. Gee, I wonder why? Maybe binge-watching replaces sleep because the video companies do everything in their power to keep us watching. In jest, Reid Hastings, CEO of Netflix, once said that his primary competitor is sleep. No joke.

From texts to tweets to email newsletters to binging *Orange Is the New Black*, so many things demand our attention. We are inundated with red circles and alerts and sounds, all designed to tap deep into our brains and hijack the neural pathways that enabled our ancestors to detect threats and thereby survive. What once served us as primal alarm systems have left us trapped instead in a downward spiral of anxiety and discontent.

We know that uncontrolled consumption of technology is increasingly diverting us from our intentions, but we seem unable to stop. Research subjects even choose to receive electric shocks rather than be left alone with their thoughts and without any technologies. The very engineers who built the devices that hold us rapt now express misgivings about what they have wrought (sending their own children to technology-free schools and restricting screen time at home), and the creator of the Facebook "Like" button now has his personal assistant use parental controls to prevent him from downloading apps to his phone.

So, as it stands, we are collectively in the throes of a massive, harmful addiction that is a signature social issue of our time. This technology addiction is increasingly removing us from the direct experience of life, and that is consequently robbing us of our sense of peacefulness, security, stillness, and ease with ourselves. More cogently, our tech addiction has made it much harder for us to sit still or even to simply pay attention. The core mechanism of this addiction is the steady, iterative diminution of our choices. This reduction of choice is a gentle slope.

Like the frog boiling slowly in water, we spend increasing periods each day on our devices or interacting with technology, and our range of actual choices narrows. This is not to say that we're consciously aware of such limits. To the contrary, we imagine we have never before had such a bounty of ways to amuse ourselves, learn, research, and consume information.

For businesses, tools like chat and video conference and email are genuinely intended to make it easier for us to communicate and function in a global environment. But beyond a tipping point, communication and collaboration is more a distraction than a benefit. And it fosters crippling Fear Of Missing Out - the fear that makes us check our email and texts first thing in the morning and over 70 times per day after that. The fear that we might miss something some-one has said that relates to our work or our position or something that we really, really need to know about. The perverse side effect of this distraction is that it makes it harder and harder for us to spend protracted time on "deep thinking" tasks that are actually the most valuable to our companies and our professional lives. Research has long since proven that multitasking makes us less attentive and competent. Yet services such as Slack are basically designed to encourage as much multitasking as possible, even to the point of urging people to keep their desktop notifications turned on. And Slack uses the same notification tricks to tap into our psychology as social media (and the casinos). Or take the case of meetings. We have a lot more meetings than we used to. Why? Because magical online calendar apps have made it so ridicu-lously easy to schedule more and more meetings!

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Even the presence of open laptops or tablets dramatically reduces the capacity of an entire class of college students to learn and retain information. So think what that means for your typical working meeting where laptops are open, keyboards are clattering, and our attention— in this venue, also our most valuable asset—is dissected and devalued by the irresistible work tech tools which, in reality, are nearly indistinguishable from social media. Slack versus WhatsApp? Not much a difference, really. FOMO also drives toxic over-consumption of technology, leaving us less and less space for personal time and time away from tech out in nature or among friends, in the moment and totally present.

The cost over time of constant connection and constant switching from task to task, tool to tool, is unhappiness. We feel that we *are* getting less done at work because, in many cases, we are getting less real work done at work. This is not to say we can go back to a day before email or online calendars or Slack. To the contrary, used well, these tools can massively boost productivity and make our work lives better. But like any tool, misuse or overuse can be harmful.

Of course, we are not entirely to blame for this state. Some of the smartest people in the world are using powerful artificial intelligence technologies specifically to devise ever newer and more effective ways to hold our attention. The mask has finally come off Facebook in the past few months, revealing a mega-corporation entirely unconcerned with giving away granular details about its users' likes, loves, and relationships to any app company willing to pay. Those companies, naturally, perpetuate the problem by using that supposedly private data against us to push our buttons. The ethics of fostering mindless consumption are only now being considered at Facebook and other large tech companies, even after they aggressively tapped the playbooks of Las Vegas casinos to hook users by tapping into primeval weaknesses in the way our minds work.

So how can we fight back? Cutting the cord or dropping out is not the answer.

An unhealthy relationship with technology is not usually equivalent to alcoholism or drug addiction. With substance abuse, the solution is nearly always abstention and radical changes to life and environment. Drug addicts, for example, are encouraged to move to a different neighborhood in order to avoid old friends from their using days and in order to remove any perceived triggers from their lives. Unfortunately such a strategy won't work for technology. We cannot simply stop using technology if we plan to hold good jobs and navigate the world around us. The requirement for us to interface with technology is not decreasing but increasing.

For example, Delta Airlines has just announced that it will be eliminating its human-attended check-in counters. This means that the only way to get a ticket for a Delta flight will be through a screen of one kind or another. We cannot tell our children that they are not allowed to use mobile phones and tablets if that is how schools administer tests. And we would be hard pressed to stop texting if it is the only, or primary, means by which our friends and parents contact us.

In the business world, we cannot avoid technology unless we start our own business and run it in some remote town or village. And even that is not realistic. If you were to apply for a job of any kind and inform the hiring manager that you refuse to use e-mail, you'd get a swift rejection. Likewise, if you refuse to use a smartphone or a mobile phone, you will rule out a wide range of roles and other positions for which emergency availability after hours is crucial. And refusing to use videoconferencing becasue it makes it too easy to schedule stupid meetings may get you fired.

Real-life practicalities also suggest the value of applying discernment to technology use. The same technology that we may consider unproductive and harmful in one situation may become necessary in another. The cell phone that teenagers cannot put down is a lifeline when they

need a ride home from a party because their driver has consumed too much alcohol or taken drugs or simply left without them. Can you tell someone not to eat at McDonald's because they would have to order at a tablet kiosk? The costs of not using technology are also increasing in terms of time spent. Many stores in Europe now refuse to accept cash payments. Using a phone-based payment system, such as Apple Pay, is much faster, more convenient and secure than using cash or a standard credit card which can be copied and hacked far more easily.

So how can we both continue to exist in this world of technology but regain our agency and our control? The answer is entirely dependent on context and individual needs. For example, we rarely use Facebook and feel no compulsion to increase our Facebook usage. So there is no need to limit our usage of Facebook or try to construct environments where we avoid Facebook. On the other hand, for people who find themselves scrolling aimlessly through friends' updates for hours on end, wishing they had as nice a vacation in Maui as their high school acquaintance, then maybe they need to reconstruct their digital environment.

But at the very core of all this is a simple calculus we all must conduct. Is the way we are using a specific program or a specific piece of technology making us happier or sadder? Making our lives richer or poorer and less meaningful? We propose a simple framework that can be applied to just about anything tech.

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Identifying the Problems Tech Causes in Our Lives: Ask Six Simple Questions

Really, six questions is all you need to ask. The answers can be as simple as a mental checklist, and they are usually obvious and intuitive. It can even be useful to list positives and negatives explicitly. The questions to ask yourself about a technology or application are as follows:

1 **Does it make me happier or sadder?**

2 **Do I need to use it as part of our lives or work?**

3 **Does it warp my sense of time and place in unhealthy ways?**

4 **Does it change my behavior?**

5 **Is my use of it hurting those around us?**

6 **If I stopped using it, would I really miss it?**

This checklist is roughly based on a proposed set of criteria for defining Internet addiction that is also based on other addictive behaviors. The first part of behavior change and management is awareness and recognition. Additionally, a key part of breaking rote habits is injecting a moment of consciousness when we can step back and consider objectively what our habit is doing to our lives. Checklists sound simplistic. But, as Atul Gawande shows in *The Checklist Manifesto*, checklists are often an excellent way to cut to the crux of really devilish behavior problems and to deconstruct the essence of an interaction or behavior.

This checklist also helps people think through the true motivations of the parties in the equation. For example, why is Facebook constantly showing me vacation pictures? Because it knows I click on them a lot. But does it know whether they make me happy or jealous? Facebook to date has not cared because clicks equal advertising consumption.

What's more, we don't suppose people should halt their lives for a massive technology audit. That sounds exhausting and will take introspection to a degree that it becomes distracting and useless. **But we all have our little demons and calling them out by name and owning them maybe, just maybe, will have a broad cumulative effect in helping us regain more control of our lives and our happiness.** ⬚

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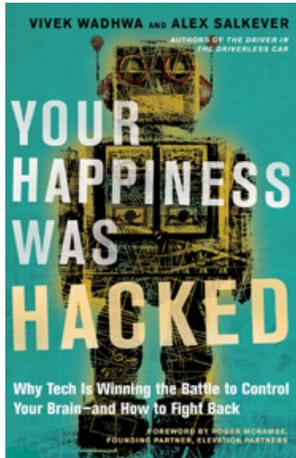
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