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Creating Technology Worthy of the Human Spirit

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Abstract: Spiritual caretakers have been present in every culture throughout human history. We know them as ministers, rabbis, lamas, shamans, imams, chaplains, gurus, and wise elders. In modern, secular times, they also include therapists, social workers, meditation teachers, and more. These caretakers support us through birth, death, and many of the most intimate and complex parts of the human experience. They use skills honed over many years that require paying radical attention to the humanity of others. Yet where is this expertise to be found in the creation of the digital technologies that have become portals through which we live, love, learn, grieve, and connect with our communities? Those who design and build digital technology must accept that we have become de-facto spiritual caretakers with the power to treat the well-being of humanity with care or with negligence. Unfortunately, caretaking is a role that computer science degrees do not prepare people for, few business models optimize for, and algorithms can not easily solve. This article outlines two concrete best practices that can help foster genuine responsibility and care on the part of technologists and technology companies. First, technologists must recognize that what we create is an expression of our own inner state. Our spiritual and emotional health is inextricably linked with our ability to build technology with responsibility and wisdom. Second, technologists must create an empowered seat at the table for those with the expertise and orientation needed to care for our souls, whether from a religious or secular lens.

Key words: spirituality; ethics; well-being; humane technology

1 Introduction

Spiritual caretakers have been present in every culture throughout human history. They support people through birth, death, and many of the most intimate and complex parts of the human experience that exist in between. Spiritual caretaking requires paying radical attention to the humanity of others. Yet its nature is shifting in dramatic ways in the Digital Age, when technology mediates many aspects of the human experience. When Siri and Alexa are on the receiving end of suicidal pleas[1] and vaccine misinformation spread on social media is killing tens of thousands of people, we live in a world in which spiritual care is frequently in the hands of algorithms. This means that the technologists who create them are de-facto spiritual caretakers of our world. Unfortunately, caretaking is a role that computer science degrees do not prepare people for, few business models optimize for, and algorithms can not easily solve.

Providing spiritual care has traditionally been among the most respected roles in a society. Spiritual caretakers include ministers, rabbis, lamas, shamans, imams, chaplains, gurus, wise elders, and more. In modern, secular times, they also include therapists, social workers, and meditation teachers. In most cases, they draw on tradition, training, and ritual that have been passed down for thousands of years. People in these roles deal with some of the most ineffable yet fundamental dimensions of the human experience, from our deepest grief to our greatest joy, and help us maintain a sense of connection to something larger than ourselves. This work, often referred to as “pastoral care” in Christian traditions, requires wise attention, compassion, and an understanding of the responsibility that comes with

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accompanying people through existential questions of meaning, purpose, and our very existence. In 590 AD, Pope Gregory the Great wrote a manual of pastoral care that is still a foundational teaching text in seminaries and divinity schools around the world. In the manual, Gregory writes that "the care of souls is the art of arts"[2].

It is not enough for individual technologists to accept the spiritual implications of our work—the responsibility for spiritual care extends to the institutions within which we are housed. The interfaith Association of Professional Chaplains states, in reference to providing spiritual care in a hospital setting, "many persons both inside and outside traditional religious structures report profound experiences of transcendence, wonder, awe, joy, and connection to nature, self, and others as they strive to make their lives meaningful and to maintain hope when illness strikes... Institutions that ignore the spiritual dimension in their mission statement or daily provision of care increase their risk of becoming only 'biological garages where dysfunctional human parts are repaired or replaced' (Gibbons & Miller, 1989). Such 'prisons of technical mercy' (Berry, 1994) obscure the integrity and scope of persons".[3] Tech companies that ignore the spiritual dimensions of their work become like these hospitals: garages where superficial desires are met but the impacts of their products on our holistic well-being are overlooked.

Those individuals and institutions wishing to rise to the task of true spiritual care, which we must in order to thrive, will need to allow this commitment to lead us past our comfort zones. Rising to the task means seeing and accepting the suffering we cause ourselves and others by adhering to the status quo, and then taking brave action to change course at a crucial moment in the history of humanity and technology. It will challenge us to face our fears and the dark sides of human nature and capitalism. It may mean altering the underlying structures, belief systems, and assumptions that drive technologies, business models, cultures, and organizations as we know them.

Whether we realize it or not, technologists and technology companies are in a position to decide if we treat humanity with care or with negligence. Seriously accepting the responsibility of spiritual caretaking will require valuing care for human souls over care for profit. Choosing profit will have grave implications for the well-being of humanity and the planet.①

This article illustrates two concrete best practices that can help foster genuine responsibility and care on the part of technology companies. These suggestions are based on my personal experience working at the intersection of technology, ethics, and justice as a senior advisor to the US Chief Technology Officer in the Obama White House, as a resident fellow at Harvard Divinity School, and more recently, founding and leading Mobius. Mobius is a collective of technologists, entrepreneurs, scientists, spiritual teachers, artists, and organizers working together to create a more responsible, compassionate, and just tech ecosystem.

The two interventions I offer here are by no means a complete solution. Meaningfully addressing the harms of technology requires an ecosystem of interventions, including regulation, employee and consumer movements, values-oriented business models, empowered ethics teams inside companies, and addressing the toxicity of the underlying systems that gave rise to them in the first place. But all of these efforts will not create technology that is worthy of the human spirit—technology that shifts us from greed to generosity, from anxiety to ease, that heals us and brings us together—unless we broaden the frame. Curing what ails the tech sector also requires us to see the role of technologist through the lens of caretaking.

First, technologists must recognize that what we create is an expression of our own inner state. Our spiritual and emotional health is inextricably linked with our ability to build technology with responsibility and wisdom. Second, technologists must create an empowered seat at the table for those with the expertise and orientation needed to care for our spiritual and emotional well-being. Both practices have been key to spiritual caretaking for millennia. If adopted as part of a larger ecosystem of changes, they could help mitigate the harms of technology, and perhaps even lead to more technology that brings out the best in humanity.

1.1 A note on language

This article attempts to bridge between the spiritual and the technological. Despite the fact that these two domains are inextricably linked, they rarely speak to each other. This makes language inherently difficult.

① The planet is included here since digital technology so often disconnects humans from the natural world and makes it easy to "numb out" instead of seriously engaging with the realities of climate change, the implications of our treatment of the planet, and the action that is called for in response.

Words such as "soul" and "spirituality" can understandably be alienating in secular contexts, but one does not have to believe in God, associate with a religious tradition, or use this language to connect to the underlying concepts. When I say "spiritual well-being", I am referring to a healthy inner life, sense of wholeness, and connection to something larger than oneself. The nearly ubiquitous use of "well-being" in secular spaces refers to many of the same aspects of the human experience.

I also use "technologist" to refer to a wide range of roles and orientations. For the purposes of this piece, a technologist is anyone making decisions that influence technology products or services, regardless of their role. For this reason, I include myself in this category. Finally, I recognize that there are many kinds of technology. When I say "technology" in this article, I am referring primarily to consumer-facing digital technology.

1.2 How we got here

Accepting and meeting the responsibility of "care of souls" contain unprecedented challenges when mediated through technology built to succeed in the context of capitalism, an economic system that rewards greed, division, and competition. Barriers include incentives structures, societal norms and narratives, and the culture of the tech sector, to name a few. These interconnected systemic conditions give rise to an endlessly complex web of technologies that are integrated into the fabric of nearly every aspect of the human experience.

While there are many benefits to this integration—the democratization of information access, the spread of social movements, and the ability to connect with loved ones across continents—the dark side is also increasingly clear—hacking of elections, the spread of violent extremism via social media, fake news and the degradation of truth, and the mental health implications of tech addiction. When business models are built to maximize the time we spend engaging with technology, it is no wonder we become afraid, violent, polarized, and addicted. When selling our data is a primary revenue stream, it is no wonder we are exposed to highly targeted political ads and our democracy breaks down.

Yet we may be at a tipping point. There is a perfect storm that may create the conditions needed for greater alignment between technology and humanity. Journalists, academics, consumers, and tech employees are speaking out about the negative impacts of technology. Former and current tech executives are admitting to feelings of guilt over creating "tools that are ripping apart the fabric of how society works"[4]. All of these recognition and vocalization are leading to a reckoning in the tech sector with unprecedented levels of motivation and courage to address the negative impacts of tech on our well-being.

This makes Silicon Valley akin to a patient with a chronic illness in its first flare-up. Some are reacting by deflecting and denying, trying to prevent anyone from knowing we are sick[5]. Some are focused on treating the symptoms quickly and superficially to get through the crisis of the moment[6]. A third group wants to find cures. This group is growing and increasingly organized. We are made up of passionate consumers, academics, foundations, tech employees, and civil society organizations such as Data & Society, the UCLA Center for Critical Internet Inquiry, the Algorithmic Justice League, and Mobius, the organization that I lead. Together, we are addressing the challenge from a variety of angles and beginning to create change that seemed impossible until quite recently.

1.3 An alternative

As long as technologists build tools that touch nearly every aspect of our lives, rising to the task of spiritual care in the Digital Age will be an essential component not just of ethical and responsible design, but also of the larger systems change that is needed. I outline two powerful yet realistic strategies as places to start. They will not come close to shifting the direction of tech alone—they are intended to complement but not replace other regulatory, cultural, economic, and educational reforms to the tech industry.

First, technologists must recognize that our own spiritual and emotional states are inextricably linked with the ability to create responsible and humane technology. Systems theorist and senior lecturer in the MIT Sloan School of Management, Otto Scharmer, writes about a major blind spot in leadership theory, organizational development, and our everyday lives: we rarely recognize the importance of the inner state from which our actions, decisions, and creations originate. Scharmer writes that the "inner state of the intervener is perhaps the most important determinant of the intervention"[7]. Put another way by Wheatley, "without

reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful[8]." It is no wonder there are so many negative consequences of technology when we are surrounded by innovation created from states of anxiety, rushing, and greed.

I recognize that slowing down is exceedingly difficult in many tech companies, where company cultures, incentives, working conditions, and even job security rely on moving as quickly as possible. Even if it was easy, slowing down and bringing reflection, mindfulness, meditation, and other well-being practices into tech and entrepreneurial cultures are also not enough. While this can set important groundwork for shifting out of destructive inner states like anxiety and greed and into the thoughtful, clear, and compassionate states needed to responsibly design and build tech, it must be accompanied by an awareness that these very same tools can be dangerous when used primarily as coping mechanisms to feel less anxious and more productive at the individual or company level. In doing so, there is a risk that they become like numbing agents that actually keep the status quo in place. Their misuse can make it easier to ignore pain, including the pain caused by the products technologists build. True spiritual growth will actually lead a person to more uncomfortable places and support the clarity and strength needed to change course. Chögyam Trungpa, Tibetan Buddhist meditation master who played a major role in the dissemination of Buddhism in the West, wrote, "meditation is not a matter of trying to achieve ecstasy, spiritual bliss or tranquility, nor is it attempting to be a better person. It is simply the creation of a space in which we are able to expose and undo our neurotic games, our self-deceptions, our hidden fears and hopes."[9] This deeper work is required to create the spiritual and emotional states needed to build responsible and humane technology.

Second, technologists must create an empowered seat at the table for those with the expertise and orientation needed to care for our spiritual and emotional well-being. Dealing with the delicate territory of the soul requires knowledge, skills, and methods that are largely absent in tech companies. I am not saying that technologists need to be expert caretakers. In fact, it would be dangerous to assume we could be. We do not expect everyone to have the legal knowledge of a lawyer, but no major tech company would imagine creating a product without consulting one. Similarly, we need the humility to recognize the nuanced caretaking knowledge and wisdom that exists outside the walls of our companies and seek out that expertise. Their perspective should be embedded in product design and strategy at all levels.②

I offer these two strategies based on my experiences supporting tech leaders who are committed to taking the responsibility of spiritual caretaking seriously. I work with technology leaders who share the mission to put our individual and collective well-being at the center of what they are building. Some of these people are among the most influential in Silicon Valley: they control multibillion-dollar portfolios, oversee tens of thousands of employees, and influence the direction of technologies that affect billions of people globally. Yet, even with this mission and power, they are working within systems, incentive structures, and cultures that are designed to keep the status quo in place.③

Mobius supports these mission-aligned leaders in two overlapping ways. Each contributes to the shifts called for above. First, we bring these leaders together, across competitors, into a nurturing and supportive community that builds the trust needed to make their company-specific work bigger than their sum of its parts. Second, we curate groups of the world's leading experts on well-being and caretaking to advise on product and strategy. These experts have deep wisdom on how to care for our well-being. They span from senior spiritual teachers (such as Jack Kornfield and Roshi Joan Hallifax) to prominent neuroscientists studying the development of compassion and empathy (such as Dr. Sará King and Dr. Emiliana Simon-Thomas), and scholars of racial justice and healing (such as Dr. Angel Acosta and john a powell). While some have previously been invited to

② This often requires bringing in people who are not currently on tech teams, but one must be careful of creating the false dichotomy that technologists cannot also be spiritual caretakers and spiritual caretakers cannot also be technologists. There are brilliant people who bridge that divide, but it is rare to find that combination in a single person or existing tech team.

③ Some may argue that senior leaders at the tech giants are inherently unethical and should not be supported. We choose to support these leaders because we believe that systemic change requires shifts from both inside and outside the major tech companies. We know firsthand that there are many people working at Google, Facebook, Twitter, and other big tech companies who are deeply concerned with the negative consequences of their technologies. Instead of being in denial, they are pushing for responsible strategies to change course. These employees are found at all levels of the companies, from the most junior employees to the C-suite. Mobius works with senior executives because of the scale of their influence, and we collaborate closely with other civil society organizations who are supporting mission-aligned tech employees throughout all levels of the companies.

visit a tech company to lead a meditation or give a talk, they are almost never in the rooms where products are designed. Mobius also weaves ancient practices such as meditation, reflection, and ritual into our facilitation in order to create inner states of compassion, clarity, and courage while decisions are being made about products. Each of these strategies is complex, and we recognize that there are potential unintended negative consequences of our work as well, including the possibility of "ethics washing" when tech companies are able to say they consulted with experts regardless of whether they integrate the recommendations.

While our work is far from a silver bullet, our hope is to help equip technologists to more responsibly take on the work of spiritual and emotional caretaking in tech's next chapter. This article is grounded in what I see as we work to support tech leaders and their teams to create technology that not only avoids harm, but also brings out the best in humanity.

From this perspective, this article takes a close look at technology's complex impact on our individual and collective well-being, followed by a deeper dive into each of the two interventions called for above and some of the promising interventions that are already or should be happening. Finally, I discuss what this all adds up to and how it fits into the growing ecosystem of changes that, even though we have a long way to go, are pushing the tech sector to value our shared well-being over the fastest route to profit.

2 The Status Quo

Some say we are in the midst of a "Fourth Industrial Revolution", driven by the rapidly growing and nearly ubiquitous integration of digital technology into all parts of society[10]. This is by no means humanity's first technological transformation, but never has a transformation been so intimately linked with nearly every aspect of our lives. Billions of people use technology as a primary portal through which to work, play, learn, and love. As a consequence, the direction of technology has profound and rapidly shifting effects on our individual and collective well-being.

2.1 The dark side of tech—implications of negligent "spiritual caretakers"

The dominant business models, cultures, and norms in the tech sector have led to technology that frequently and often consciously preys on the most vulnerable parts of human nature. We are surrounded by devices and platforms that hijack our attention and keep us from connecting deeply with ourselves, others, and the physical world around us. The negative implications of such technology are increasingly clear. Tech executives and their teams are facing one ethical quandary after the next, ranging from the spread of misinformation breaking apart our civic fabric, to the mental health implications of seventy two percent of teens in the United States feeling the need to immediately respond to notifications on their phones, to a steady stream of atrocities such as Facebook posts inciting genocide against the Rohingya Muslims[11].

Many problems stem from the mental and emotional effects of spending more time connected to our digital devices. Adults in the United States spend an average of eleven hours a day interacting with screens—nearly half our lives[12]. Netflix's CEO recently said that sleep is their biggest competitor[13]. I would argue that the health of our intimate relationships is a close second. As Turkle writes, "We have become accustomed to a new way of being 'alone together'. Technology-enabled, we are able to be with one another, and also elsewhere, connected to wherever we want to be."[14]

As just one example, millions of young people allow their friendships to hang in the balance of whether they maintain their Snapchat "streak", a feature that relies on friends sending direct snaps back and forth with each other every day. The longer one goes without breaking the chain of communication, the longer the streak and the "stronger" the friendship. Some Snap users manage hundreds of streaks simultaneously, and many go so far as to have their friends log into their accounts to maintain their streaks if their phone is taken away by parents[15]. This highly addictive feature preys on a wide swath of a psychologically vulnerable population—sixty nine percent of American teenagers use Snapchat[16].

2.1.1 Designing for addiction

It makes sense that there are so many negative impacts when we look at the context within which these technologies are created. Engineers and designers are frequently driven to build highly addictive features because of the business models of the companies that employ them. "It is as if they are taking behavioral cocaine and just sprinkling it all over your interface and that is the thing that keeps you coming back and back and back", said Aza Raskin, former senior leader at Mozilla

and Jawbone. Raskin invented the "infinite scroll" in 2006, an extremely common feature of apps that allows users to endlessly swipe down through content without extra click[17]. The infinite scroll was designed to be "maximally addictive … if you do not give your brain time to catch up with your impulses you just keep scrolling". This matters because "in order to get the next round of funding, in order to get your stock price up, the amount of time that people spend on your app has to go up", Raskin said. "So, when you put that much pressure on that one number, you are going to start trying to invent new ways of getting people to stay hooked." Raskin was ironically working at a tech company called "Humanized" when he invented the infinite scroll. In addition to the interventions and mind shifts discussed in this article, Raskin's point reinforces the importance of actions such as changes in policy, funding, and business models.

Raskin went on to cofound the Center for Humane Technology (CHT) in 2018 with former Googler Tristan Harris. CHT is part of a growing set of advocacy organizations that are building a movement to "realign technology with humanity". Raskin is among a relatively large community of technologists who admit feelings of guilt about the consequences of the tools they helped create and are working to shift the direction of the tech sector as former and current tech insiders.

Chamath Palihapitiya, Facebook's former vice president for User Growth, left the company in 2018 said he felt "tremendous guilt" over his role in creating "tools that are ripping apart the social fabric". He said, in reference not just to Facebook, but to the wider online ecosystem, that, "The short-term, dopamine-driven feedback loops that we have created are destroying how society works. No civil discourse, no cooperation, misinformation, mistruth. This is not about Russian ads," he added. "This is a global problem. It is eroding the core foundations of how people behave by and between each other"[4].

It is not just former big tech executives speaking out. There are countless scholars and activists who have been sounding the alarm bell for decades. As many point out, seemingly minor design choices, such as Snapchat's fire emoji that indicates whether a streak is still going, the buzz of the phone with each new email, or the infinite scroll that keeps us refreshing our feeds by swiping down on the screen, add up to a bigger picture with grave implications for our mental health and the health of our close relationships, civic fabric, and even our planet[18].

2.1.2 The fuel of toxic culture

In addition to the business models, the dominant culture of Silicon Valley drives people to create technology that treats the well-being of humanity with recklessness. This is true on the company and industry levels. "Move fast and break things" is not how pastoral care works. Even though Facebook founder Mark Zuckerberg has publicly changed this company motto, it is in their cultural DNA. Facebook structures their strategic planning and performance reviews in "halves", or six-month horizons[19]. The public pays the price of Facebook's short-term thinking. For example, algorithms designed to maximize our time on the site have numerous consequences, many of which can be avoided with scenario planning and foresight. One such consequence is that these algorithms separate us into "filter bubbles" within which we are primarily fed content that we already agree with, thus making our worlds smaller instead of bringing us together[20]. Moving fast and breaking things do not stay within Facebook's walls. It is indicative of a larger culture of "disruption" and the common belief that more and faster is always better. This orientation runs completely counter to acting with awareness, intention, and care.

This culture of speed and recklessness is not unique to the tech sector, or even to the private sector. It is pronounced across most industries and seeps into people's private lives by the nearly ubiquitous presence of our devices. People suffer information overload and the expectation that we are constantly plugged in and available. In his manual of pastoral care, Pope Gregory the Great warned about the impact of this fractured attention. When the minister distracts their heart "with a diversity of things, and as his mind is divided among many interests and becomes confused, he finds he is unfit for any of them and becomes so preoccupied during its journey as to forget what its destination was"[2]. Jack Kornfield, a well-known American Buddhist teacher and Mobius founding senior advisor, explains it another way. "We live in a society that almost demands life at double time, speed and addictions numb us to our own experience. In such a society, it is almost impossible to settle into our bodies or stay connected with our hearts, let alone connect with one another or the earth where we live"[21]. Even those who go into a tech company with a

clear social mission are prone to forget the destination when they are swimming in rapid currents of short-term targets, emails and slack notifications, and rushing to release new features before the competition does.

The tech sector's bias toward speed and short-term thinking are also compounded by the nature of the ethical reckoning we are going through. Since it is like being diagnosed with an illness that has no simple cure and constantly evolving symptoms, there is understandably a new level of fear and overwhelm that puts many technologists into crisis mode, even as we try to work toward solutions. This means strategies to make things better are often created within the same short-term, quick-fix, and fearful approach that got us into this predicament in the first place.

In contrast, nearly every spiritual tradition teaches us that contemplative practices and slowing down to gather and focus attention are a necessary step towards responsible and wise action. Jews observe the Sabbath by taking a full day of rest, reflection, and prayer every week. Jews and non-Jews are putting a modern spin on Shabbat by observing "tech sabbath" as a sustained period of unplugging[22]. Observant Muslims perform ritualized prayer called "Salah" five times a day. This practice of stepping away at regular intervals is not only to connect with God, but also to "purify the heart", which in Islam is considered to be the center of all feelings, emotions, desires, remembrance, and attention. This practice of stopping, resting, reflecting, and reconnecting with the heart is a foil to the modus operandi of most tech companies.

2.2 The high side of tech—enabling the most positive human qualities

Digital technology can and often does enable us to live more connected lives of meaning. For example, there are transgender teens in rural America who develop their emerging queer identities online through social media affinity group[23]. Facebook introduced thoughtful memorialization features that recognize the complex emotions that are intertwined with the Facebook page of someone who passed away. Loved ones can activate a tribute page and new algorithms prevent memorialized profiles from showing up in "places that might cause distress", like event recommendations and birthday reminders[24]. Caring for someone's community when they die is a classic pastoral role. Not coincidentally the design of these features was led by a Buddhist chaplain who was trained in how to provide this care offline. All spiritual traditions have rituals and practices related to death, and Facebook's tribute page for the deceased is also reminiscent of the Jewish practice of sitting shiva. Family members observe seven days of mourning during which the community brings food and shares memories of the person who has died. Facebook's memorialization features are a concrete example of what it looks like to draw on offline ancient and sacred rituals to care for us online.

On the societal level, just as tech divides, polarizes, and dehumanizes, it also enables us to come together at unprecedented scales. Many of the most significant social movements of our time were fueled in part by hashtags. In July of 2020, shortly following the murder of George Floyd, the #BlackLivesMatter hashtag had been used 47.8 million times on Twitter from May 26th to June 7th, 2020. That is just under 3.7 million times per day[25]. Since its origin in a Facebook post after the 2012 shooting of 17-year-old Trayvon Martin, the hashtag has become a central unification and mobilization tool for the most widespread and visible racial justice movement since the 1960s[25]. From October 16th, 2017 until May 1st, 2018, #MeToo appeared an average of 61911 times per day on Twitter, dramatically shifting the conversation about sexual assault in the United States[26].

The above examples show that it is possible to use technology as a tool to bring out the best in humanity. What if technologists designed for that instead of designing to maximize the amount of time spent, and attention extracted? What if tech encouraged pausing, and approached every design decision with mindfulness and compassion? Above all, what if technologists valued deep expertise on how to care for our well-being as much as the expertise of great engineering and design? And what if we acted as if the care of our souls is more important than how easy it is to refresh our Twitter feeds?

3 Intervention

There is an increasing number of people looking for a cure to Silicon Valley's chronic illness. This includes policymakers, organizers and activists, tech employees, consumers, journalists, scholars, and former tech insiders speaking out about the implications of what they built. A true ethical transformation of the tech sector will require bold regulation, outside pressure, values-

oriented business models, empowered ethics teams inside companies who are not reprimanded for speaking the truth, and humane company cultures. It necessitates lifting up leadership and perspectives that are often unrecognized by the mainstream technology sector and ensuring that a multitude of world views and skills are shaping its future. And long-term solutions rest on the herculean task of disentangling ourselves from the tentacles of an economic system fueled on greed.

That said, technology companies are not monoliths. They are made up of people with agency who are making decisions every day. Many of the individuals working inside the tech sector were drawn in part by the companies' stated values and missions, many of which we now know are dangerously idealistic and naive. Twitter's mission is to "give everyone the power to create and share ideas and information instantly without barriers". Facebook's mission is to "build community and bring the world closer together", and Steve Jobs' articulation of Apple's mission was to "make a contribution to the world by making tools for the mind that advance humankind". Capitalism, culture, and the complexity of the relationship between tech and humans have warped these missions at the expense of the long-term health of society. Yet, it is important to remember that the altruistic impulses of many of the people who make up the tech sector remain and can be the seeds of accepting the moral responsibility that comes with holding our spiritual well-being in their hands.

There are increasingly concrete examples of tech executives making unconventional choices that return to the original intentions behind their mission statements. For example, despite the fact that it clearly hurts short-term profits, Twitter's CEO Jack Dorsey, banned political ads in the leadup to the 2020 presidential election because "Internet political ads present entirely new challenges to civic discourse: machine learning-based optimization of messaging and micro-targeting, unchecked misleading information, and deep fakes. All at increasing velocity, sophistication, and overwhelming scale. These challenges will affect all internet communication, not just political ads. Best to focus our efforts on the root problems, without the additional burden and complexity taking money brings"[27]. If one reads between the lines, Dorsey is saying that Twitter's mission to "share information instantly without barriers" is not actually in the best interest of society. Twitter's vice president of Revenue and Content Partnerships, Matt Derella, also stated that "We want to make sure we don't create filter bubbles with this powerful ad system we have"[28]. There is a long way to go, but both Dorsey and Deralla are acknowledging the moral responsibility that comes with their power and they are taking action as a result.

Below I present two shifts that, while only part of the solution, are required for responsible spiritual care in the Digital Age, and they are often overlooked. First, technologists must pay closer attention to their own spiritual and emotional states, as that gives rise to the products we create. Second, we must make sure that those with the wisdom and expertise to care for our souls are helping to shape tech products and strategies.

3.1 Shifting the inner state of the intervener

Technologists must recognize that our own spiritual and emotional health is paramount, especially because of the ways that power and stress blind us. Gregory the Great warned ministers in 590 AD of the propensity for power to cloud the mind and the heart. "What else is power in a post of superiority but a tempest in the mind, wherein the ship of the heart is ever shaken by hurricanes of thought"[2]. Operating inside the clouds of power and privilege makes it even more important that technologists cultivate the awareness and spiritual fortitude to see clearly the implications of our decisions and to design from a place of wisdom and compassion. As the systems theorist and author Margaret Wheatley said, "without reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful"[8].

3.1.1 Spiritual bypassing

Ironically, much of the tech sector already embraces spiritual language and ancient practices, but often for self-serving ends that unwittingly disrespect the sanctity, depth, and intentions behind them. Entrepreneurs are using the South American ceremonial hallucinogen ayahuasca to come up with more creative business ideas[29], there are thousands of people on the waitlist for Google's two-day intensive mindfulness course[30], and whole startup teams are fasting for 36 hours to improve clarity[31].

In contrast, most spiritual and religious traditions include fasting as a sacred act of renunciation, atonement, or connection with God. Fasting during Ramadan is considered one of the five pillars of Islam. It is meant to reduce greed and increase empathy for those who are

poor and hungry, thus encouraging acts of generosity and charity. Using fasting to increase profit is an offensive perversion of the altruistic intention behind the practice.

Applying ancient practices in modern, secular contexts is not negative in principle, but when these practices are primarily a way to feel less overwhelmed and more productive as individuals or companies, they risk becoming a numbing agent that makes it easier to ignore our own pain and the pain caused by our institutions. If spiritual work does not go beyond our own self-interest we risk engaging in a collective "spiritual bypass", the use of spiritual ideas and practices to avoid facing reality, especially if it involves feeling pain and discomfort[32].

There is a long history of spiritual bypassing and using spiritual practices to maintain destructive practices and institutions. The role of "chaplain" as we know it was established for the US Army in 1775, when Congress authorized one chaplain for each regiment of the Continental Army. Since then, the official mission of Army Chaplains has been to assess and boost the "spiritual fitness" of the soldiers. It is believed that spiritual fitness is a key component of "soldier readiness and force protection", and that it improves the soldier's ability to cope with the guilt of killing other people and the tragedy of losing their fellow soldiers[33]. It is undeniable that the mental health and spiritual well-being of soldiers is important—the traumas many soldiers experience are more extreme than most of us can imagine, and twenty veterans commit suicide every day[34]. But this focus on spiritual fitness puts band-aids on deep wounds long enough for soldiers to keep fighting, but without actually addressing their well-being in the long run. At the collective level, it helps keep a violent status quo in place even when there are countless moral and ethical reasons to question it.

Spiritual bypassing is built into the very fabric of our culture and economy. The Cherokee healer and psychologist Anne Wilson Schaef writes, "the best-adjusted person in our society is the person who is not dead and not alive, just numb, a zombie. When you are dead you are not able to do the work of society. When you are fully alive you are constantly saying 'No' to many of the processes of society, the racism, the polluted environment, the nuclear threat, the arms race ... Thus it is in the interest of our society to promote those things that take the edge off, keep us busy with our fixes, and keep us slightly numbed out and zombie-like. In this way our modern consumer society itself functions as an addict"[35].

The tech sector is no exception. Many tech employees are using meditation and mindfulness to increase productivity so they can build the tools that hijack our attention and make it harder for us to exist outside of the digital realm. There is deep hypocrisy in the fact that Mark Zuckerberg does not let his daughter use Facebook Messenger Kids, and Steve Jobs' children had strict limits on technology use at home[36]. The most sought-after private school in Silicon Valley, the Waldorf School of the Peninsula, bans technical devices for those under eleven and teaches the children of Google, Uber, Ebay, and Apple how to make go-karts, knit, and cook, saying that computers inhibit creative thinking, movement, human interaction, and attention spans. As Alice Thompson, an associate editor and weekly columnist for *The Times* in the UK said, "It is astonishing if you think about it: the more money you make out of the tech industry, the more you appear to shield your family of its effects".[37] This is akin to tobacco executives saying cigarettes have no harmful health effects while banning their own teenagers from smoking.

Yet it is easier to maintain cognitive dissonance than to reckon with the deep hypocrisy of choosing to build something that one knows is causing harm. As the Tibetan nun Pema Chödrön writes, "We can spend our whole lives escaping from the monsters of our minds", and the misuse of spiritual practices and rituals can be a powerful way to do this[38].

3.1.2 Moving from spiritual bypassing to wise action

Spiritual practices can also cultivate the courage and resilience to be with discomfort and look more honestly at the implications of one's actions. They can increase awareness of the rampant narratives and cultures that maintain the delusion of social benefit when the reality is far darker.

This can be difficult since humans are hardwired to run away from pain and seek pleasure. But moving beyond the use of spiritual practices purely for individual enhancement is a necessary step toward more ethical and compassionate technology. It means taking responsibility for the fact that our inner state shapes the decisions we make and what we create. Therefore, it is reckless not to cultivate awareness in service of a mission that is larger than oneself.

Few people articulate the relationship between one's inner state and what one creates better than the Quaker author and activist, Parker Palmer, in his explanation of the mobius strip, a surface with the mathematical property of being unorientable, causing it to appear double-sided even though it has only one side[39].

"If you take your index finger and trace what seems to be the outside surface, you suddenly find yourself on what seems to be the inside surface. Continue along what seems to be the inside surface, and you suddenly find yourself on what seems to be the outside surface. What looks like its inner and outer surfaces flow into each other seamlessly, co-creating the whole. The first time I saw a Mobius strip, I thought, 'Amazing! That is exactly how life works!' Whatever is inside of us continually flows outward, helping to form or deform the world—depending on what we send out. Whatever is outside us continually flows inward, helping to form or deform us—depending on how we take it in. Bit by bit, we and our world are endlessly re-made in this eternal inner-outer exchange. Much depends on what we choose to put into the world from within ourselves—and much depends on how we handle what the world sends back to us…

Here's the question I've been asking myself ever since I understood that we live our lives on the Mobius strip: 'How can I make more life-giving choices about what to put into the world and how to deal with what the world sends back—choices that might bring new life to me, to others, and to the world we share?'"

The connection between inner and outer states means that technologists have a moral responsibility to create company cultures that encourage reflection and compassion.

Palmer's discussion of the Mobius strip is the motivation behind my organization's name. Mobius' goal is to help tech leaders shape technology for the well-being of humanity, in part by helping them, as Palmer suggests, "make more life-giving choices about what to put into the world and how to deal with what the world sends back". In doing so, we aim to help technology leaders and their teams act ethically as they design the products that shape our experience of being human. We try to create the conditions for them to treat technology development as an act of pastoral care by "paying radical attention" to their humanity and the humanity of those who use their products.

Even moving beyond spiritual bypassing is not enough if the awareness that results does not influence product decisions. This requires responsibly integrating spiritual practices into the design process itself, moment to moment. This can feel uncomfortable in work settings, where culture often discourages merging the "spiritual" with the "professional". This is especially true in predominantly secular environments such as Silicon Valley. Seventy percent of adults in the San Francisco Bay Area, the heart of the tech industry in the US, are religiously unaffiliated, atheist, or agnostic. There are often appropriate reasons for separating religion and the workplace, especially with the risk of discomfort or discrimination based on religious beliefs. However, there are ways to sensitively bring the benefits of spiritual practices into the workplace without including the baggage that so often understandably accompanies it. It may sound insignificant in comparison to the scale of the challenge, and in many ways, it is, but inserting small moments of mindfulness that are explicitly connected to impact can shift the inner states of the people building technology, so we are more reflective and connected to our own intentions and the implications of our decisions. Given that tech companies are made up of individuals making decisions all day, this can have an outsized impact. And, even so, it is important to note the limitations. Simply being more reflective will not get us to where we need to go. That claim would ignore the realities of working within institutions that incentivize behavior that is often in direct contrast with ethical decisions.

However, a masterclass on the impact of contemplative practices supporting social change comes from the Leadership Conference of Women Religious, the leadership body of Catholic nuns in the US. In 2012, the nuns were being investigated by the Vatican for their feminist beliefs and political advocacy for LGBTQ and reproductive rights, which, they were told, ran counter to church doctrine. Their meetings began with thirty minutes of silent contemplation, a simple practice that bolstered their courage, resilience, and ability to act wisely while under fire[40]. Similarly, the Quaker practice of silent listening, followed by speaking when moved, arguably helped create the foundation of clarity and bravery that enabled Quakers to become some of the first White abolitionists. In the realm of physical design, traditional Chinese gardens build bridges according to Zen philosophy and teachings. The bridges proceed in

right angles, not straight lines, such that the person walking needs to slow down and be mindful. Otherwise, they risk falling into the water. These are just three examples of what a culture of more deeply integrated mindful practice might look like.

Catholic nuns, Quakers, and Zen philosophers have understood for centuries how even small amounts of this kind of pause, especially amidst crisis and urgency, provide the clarity to take courageous and ethical action including in the fight for feminist rights and the abolition of slavery. This tipping point moment in the tech sector calls for similar levels of courage.

Mobius is witness to the power of small moments of mindful pause when we facilitate advising sessions inside tech companies. Thirty minutes of silence is ambitious in standard corporate settings, but even smaller moments of intentional pause and reflection can make a difference. Pauses, especially in the midst of overwhelming to-do lists and overflowing inboxes, increase the possibility of making more conscious choices. Especially if there is a deliberate effort to go beyond spiritual bypassing, these pauses can help set the foundation for transformation and changing course.

One example comes from Mobius' work with one of the largest tech companies to create more nuanced and responsible well-being metrics to understand how the platform affects peoples' mental and emotional health. What they find will inform product decisions across the company. Their definition of "well-being" will have a global impact. We facilitated a workshop that brought together outside experts, including spiritual teachers, with the company's well-being team. The meditation teacher, Jack Kornfield, began by leading a meditative reflection on the fact that, given their reach, influencing the company's definition of well-being directly impacts the well-being of humanity. He named that this is both a privilege and includes great responsibilities. We then led the team through a process of envisioning the impact they want to have on people and setting intentions. These efforts grounded the rest of the advising session in a sense of purpose that was much deeper than meeting their six-month targets. The moment of pause was simple, and yet we heard from the team that this was a radical act of slowing down in the context of a company culture that is dominated by rushing and anxiety about meeting performance metrics.

Integrating heartfelt reflection in that workshop did not change the course of the company. Advising tech companies on well-being has shown me over and over that, when the rubber hits the road, meaningful change requires making tradeoffs that value responsibility and care over core metrics of engagement, speed, and profit. Usually, these tradeoffs do not happen and the work becomes a band aid or is not sustained. However, if more pauses and guided reflection were built into the overall company culture and practice, people might be more likely to make those tradeoffs. These micro-interventions are a small piece of what is needed in the tech sector, but they help create conditions for more ethical and brave action in the moment and contribute to culture change over time.

Adopting practices like is difficult on one's own, regardless of the context. Community has always been key to the spiritual path. This is true of lay people who are part of religious congregations as well as of monks and nuns who support each other in lifelong commitments spiritual practice.

Mobius is also experimenting with how to meet this need in the tech sector by building an intimate community of mission-aligned tech leaders across companies. This is another method to shift the "interior condition of the intervener", counter the ways in which power and stress can blind well-intentioned people, and support people to move from good intentions to wise action. We host gatherings for senior leaders from across the major tech companies who share the mission to put our shared humanity at the center of their products and services. These gatherings are often hosted in someone's home and integrate spiritual practice in order to foster deeper connections to ourselves, each other, and a shared sense of purpose. The people who are part of the Mobius community work for competitors, so there are limits to what they can and will share with each other: they can rarely talk about specific product features. But there is an increasing desire to discuss common challenges, develop shared standards and principles, and envision new forms of industry-level responses.

We are certainly not the only community-builders in the ethical tech movement. The Trust and Safety Professional Association is a new entity to foster community and cross-company learning for those in Trust and Safety roles across the tech sector. New_Public is a community of people from a range of disciplines working to create healthier online spaces, and the list goes on.

The Mobius cross-company is particularly inspired by

the Buddhist concept of the sangha, a community of Buddhists who gather consistently to practice together. Sanghas emphasize that members of the community are all walking a spiritual path together, even when not in the same physical space. This can create powerful levels of psychological safety to see the implications of one's actions and what it will take to change these actions.

As the Vietnamese Buddhist monk, activist and teacher Thich Nhat Hanh wrote:

"The sangha is not a place to hide in order to avoid your responsibilities. The sangha is a place to practice for the transformation and the healing of self and society. When you are strong, you can be there in order to help society. If your society is in trouble, if your family is broken, if your church is no longer capable of providing you with spiritual life, then you work to take refuge in the sangha so that you can restore your strength, your understanding, your compassion, your confidence. And then in turn you can use that strength, understanding and compassion to rebuild your family and society, to renew your church, to restore communication and harmony. This can only be done as a community—not as an individual, but as a sangha."[41]

Building a community among leaders is a radical act in the context of a sector that is usually allergic to collaboration. There are rare exceptions, such as the Global Network Initiative, a cross-tech industry coalition that was created to prevent human rights violations in response to the Chinese government finding and torturing political dissidents using data that it accessed from Yahoo. But as Thich Nhat Hahn explains, community has the power to bolster greater moral courage and provide the fortitude to do the difficult work of social transformation.

That fortitude is sorely needed in this case. While building community takes patience and requires trust, many of these leaders are lonely, overwhelmed, swimming upstream, and deeply hungry for like-minded individuals who share a commitment to responsibility and well-being. They are fighting against the strong forces of our economic system and how that translates into the incentives, structures, and cultures within which they are trying to create change. Locking arms in community can help provide the strength to see more clearly and act more radically in service of the larger whole.

3.2 Bringing the spiritual caretaker to the table

In his manual of Pastoral Care, Gregory the Great implores those in power to maintain a "humility of office" that allows them to identify clouded perspectives, subconscious motivations, and blind spots.[2] In the tech sector, this humility needs to extend to a recognition that caring for the soul warrants expertise that rarely is present in tech companies. Whether in the form of a minister, Rabbi, Buddhist meditation teacher, or psychologist, these are experts on timeless questions about how to be healthy and whole human beings and communities.

Throughout much of human history, these roles have been accompanied by many different forms of preparation that include the cultivation of wisdom through deep spiritual practices that have been passed down for thousands of years. As such, it would be unrealistic and even dangerous to assume that everyone who touches product decisions could have the knowledge, skills, wisdom, and methods required to responsibly care for our souls—or that these people could acquire such expertise through a few meditation or spiritual retreats. We do not expect everyone to have the legal knowledge of a lawyer, but no major tech company would imagine shipping a product without consulting one. The same should apply to spiritual care when humans and technology are so intimately intertwined. It should not be acceptable to decide how Siri or Alexa talks a teenager out of a suicidal attempt without involving experts on nuanced and responsible spiritual care.

Tech companies are increasingly hiring the equivalent of chief ethics officers who, given the nature of the crises at hand, are scrambling to define their role, put out constant fires, and develop long-term ethical processes and principles[42]. Companies also bring in outside experts, mostly academics, to build their knowledge base about well-being. But these experts are often consulted in superficial and one-off ways rather than being deeply integrated into the design and strategy process. While these new ethics roles are important steps, they do not create the conditions for true pastoral care for the users of technology.

For example, Alexa is increasingly the only companion for many older people in a given day. Mobius convened a group of caretakers, meditation teachers, and neuroscientists to advise a team at Amazon that is exploring how Alexa might help alleviate loneliness and social isolation among the elderly. Alexa is suddenly "caring" for millions of older people around the world.

Alexa's engineers could either treat this as an interesting fact that is good for their business but does not influence how they define the success of their product, or they could accept the caretaker role with the responsibility it deserves. Thankfully, this particular Alexa team is taking their responsibility seriously. The experts we assembled worked with the Amazon technologists to imagine a world in which Alexa connects people via video to others who share their interests, collect stories and memories for their families by "interviewing" them over time (with consent), and helps people live in accordance with their values and goals for this stage of their lives. This workshop was early in the Alexa team's visioning process, so whether the ideas make their way into the product is yet to be seen. Regardless, this kind of intervention is unlikely to create sustainable change until expertise like this is present in the tech teams themselves or otherwise integrally woven into the decision-making process.

In the Alexa case, it is worth noting that being thoughtful about addressing loneliness most likely helps Amazon's bottom line. The real test is whether companies will make the necessary tradeoffs to value well-being over the fastest route to a profit. Meaningfully integrating caretaking expertise into product teams does not address that root cause, and it is important to be realistic about what that kind of intervention can and cannot accomplish without shifting what is incentivized and valued in the company.

The integration of such care could take a variety of forms, at the product and strategy levels. There could be resident chaplains who are part of product teams, cohorts of graduates from divinity schools and seminaries who are trained in tech and ethics and embedded in tech teams, engineers who attend tailored programs on spiritual care, or ethical councils that include faith leaders in addition to ethicists, lawyers, and tech policy experts. There are many strategies to explore, none of which should be one-off or treated as a silver bullet. They should be built into every part of the design, build, and launch process. It is only at the intersection of a wide range of wisdom, knowledge, skills, and life experiences that we can begin to create technology that is truly worthy of the human spirit.

4 Conclusion

The past few years were key to pointing out and naming the negative impacts of technology. We know there is an illness and the symptoms are undeniable. But now it is time to focus on a cure without succumbing to denial, band-aids, or purely putting out the latest fire. We need change at a greater depth and scale than any of the interventions discussed in this piece can create on their own. There is now a vibrant and growing ecosystem of individuals and organizations who are addressing this challenge from a myriad of angles. People are shifting business models, pushing for anti-trust regulation, increasing the diversity of the tech workforce, creating new ethical design principles and performance metrics, and organizing employee movements and walkouts. We need all of these efforts working in concert.

But if we fail to see solutions to tech's impact on humanity within the broader frame of care for souls, we will continue to create quick fixes and small interventions that are misaligned with the fact that technology is influencing nearly every aspect of the human experience. Thankfully, we are surrounded by wisdom that has a great deal to teach us about how to bring technology and humanity into alignment. We know what practices shift us from greed to compassion. We know how to create space for awareness and acceptance. We know how to provide pastoral care through the greatest joys and sorrows of life. Translating this into the digital world is not simple, but it is necessary.

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