Unlocking human potential

Proactive practices for individual elasticity

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Introduction

The Center for the Edge has written extensively about how the world is changing, and about the implications and impact of this change on corporations. We have framed the deep structural shifts afoot and practices that *institutions* can adopt to thrive in the world to come. Now, this report addresses practices that *individuals*—not just leaders, executives, and top athletes, although many of their practices are relevant, but *all* of us—may need to adopt to thrive in this world.

WE know that the world is changing rapidly, both in terms of broad, global trends that are driving business and the more immediate space around our day-to-day lives. Mimicking the exponential pace of change in the underlying technologies, the options available to us to meet our needs and pursue our goals are evolving rapidly and often unpredictably. In some ways this makes us richer and more empowered than ever. In some ways it unsettles us. This is one paradox of life in the 21st century: The world changes rapidly; our basic needs as humans, not so much. In some important ways, we struggle to keep up with the very world we have created and continue to create. It is a time of great—and increasing—stress.

We already feel the tension today: the sense of boundless options (for some) and the awareness of limited time (for most); the sense of having just missed something and the fear of missing more; the thrill of seeing a car 3D printed and the unease of wondering which jobs will remain for us in the age of intelligent machines; the hyper-connection and loss of connection; the expectation of on-demand everything and the appeal of slow, bespoke, hand-made.

One of the fundamental shifts that we now face is the shrinking of time spans, in large part due to exponential technological change coupled with the instantaneous propagation of ideas and information across a connected world. What used to take decades now takes years; what took years takes months; months, weeks; weeks, days; days, hours; hours, minutes. In the institutional environment, this shift is disrupting established businesses and business models, but it has also created a new set of businesses and business models better adapted to the faster (and accelerating) pace.

We, as individuals, are also experiencing this shift. For our parents, an education lasted a whole career. Now, it may last 5–10 years.[1] With the accelerating pace of change, the relevance and validity of the ability to "know" a stable stock of knowledge is diminished while other abilities, such as creativity, empathy, and the ability to read context, become more important. Our children will truly have to take lifelong learning seriously, continuously upgrading

their skills. They will likely transition to completely new fields of study and employment more than a few times in their careers. Like institutions, we too will need to develop new practices and capabilities that are adapted to the times.

Amid these pressures of a new, modern world, people have turned to some old, and very old, practices. Exemplified by phenomena such as the Wisdom 2.0 conference, there is a growing movement built around mindfulness, meditation, gratitude, and digital detox—all in reaction, as *antidotes*, to increased stress. The well-being sector is booming, experiencing new demand for old practices as well as developing new practices and distinctly new twists on old practices. Yoga has never been asked to do so much for so many. In fact, a recent study found that the number of people practicing yoga in the United States has increased by nearly 80 percent since 2012, with practitioners spending over $16 billion annually on instruction.[2] Meanwhile, meditation-related spending reached just under $1 billion in 2015, a figure that doesn't include mindfulness apps.[3] The workplace wellness market is over $40 billion in the United States.[4] In the desire to understand ourselves holistically and to thus manage our lives, health and wellness, well-being, mental health, professional development, career advancement, and even community service collide as the boundaries between these sectors and parts of our lives blur.

What we propose in *Unlocking human potential* is a set of *proactive* practices for all of us that can help shift the paradigm, as we face the unknown and unpredictable, from stress and survival to excitement and vitality. These practices include those, championed by (among others) the Wisdom 2.0 movement, that allow you to *slow down* and re-anchor yourself.

We call these slowing-down practices "Roots." But we also believe that Roots practices can have more value, not just when used proactively, but when used in concert with other practices—such as building a diverse social media network, traveling, and "unscheduling"—to *speed up* and explore new arenas for learning and growth. We call these speeding-up practices "Shoots."

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By connecting Roots practices with Shoots practices, individuals have the potential to not only gain focus, improve well-being, and become more productive (all potential outcomes of any one practice), but also to become more adaptable, more capable of learning across changing contexts, more empathetic, and more creative and flexible in creating new approaches and adapting old ones to sustain themselves over a career and a lifetime.

This isn't a story about "checking out" or taking the path less traveled. It's about checking in, with yourself and with others; leaning in and climbing out; jumping into the flow of ideas, people, and information to learn new strokes; and eddying out to regain equilibrium. It's about learning to move with purpose and using flows, and "flow,"[5] to successfully and sustainably live and work. We are very much interested in the path we're all on. It's about each of

us finding ways to create a better path for ourselves, making sure the path is taking us where we want to go, and understanding the many options we have for traversing it.

While this report focuses on practices for individuals, institutions have an important role to play by providing environments that accelerate the adoption of these practices within the shifting contexts of the Big Shift. That, in turn, will endow institutions with a workforce that can bring creativity, curiosity, reflection, and resilience to the challenges of a changing and unknowable future business environment, leading to increased productivity and improved performance and output.

In the rest of this report, we build a framework around the "Roots and Shoots" concept and use it to explore a variety of practices relevant to our current and future work and life. This framework is designed to provide a new lens through which to view some of the robust research and tools that already exist, and to propose ways to use some of those tools and capacities in different ways or with a different focus. We will discuss how some existing practices fit into this framework and where there may be gaps, as well as possible mechanisms for connecting Roots to Shoots practices.

In developing this report, we saw three themes emerge:

- **Roots and Shoots practices should be *proactive*, not *reactive***: The rationale for looking at these practices is not for their—for Roots in particular—well-documented value in mitigating stress and "busyness," but for their greater value in unlocking and sustaining potential.

- **Slowing down (Roots) and speeding up (Shoots) are *complementary*, not *contradictory***: With so many people already engaging in Roots practices, much unrealized potential can likely be gained by thoughtfully connecting Roots to new Shoots so that they reinforce and inform each other.

- **Unlocking potential is a process of *unlearning and learning:*** The interplay between Roots and Shoots and the focus of the practices themselves help us *unlearn* mental models and ways of operating that are no longer useful and *learn* skills and capabilities that are relevant to our future lives.

We don't have all the answers. We hope, with this report, to start a conversation and to provide a framework for thinking about the options and how they support your individual and institutional goals. Ideally, Roots and Shoots practices are not just a reaction to stress, grabbed like lifelines as you career by. Rather, they are proactive tools assembled with deliberation to better realize your full potential.

Individual elasticity for an unpredictable world

BALANCE, specifically work-life balance, often seems to be the goal, however elusive, when we try to develop new practices around our work and life. We are told that our lives, and our working lives, may be long—longer than for previous generations[6]—and we know that we have to sustain our bodies, minds, and relationships across this lifetime. To do this, we turn to balance. But is balance the only, or even the right, goal? In moments of unhappiness, we tend to notice great imbalances and think that balance is the answer. But for many of us, in thinking about our careers and aspirations and the ways we assess ourselves and find meaning, progress or impact might be as necessary for sustaining ourselves as balance.

If balance isn't necessarily the goal, what is? The discourse around personal practices for times of exponential change tends to be divided between speeding up and slowing down, not so much at odds with

each other as disconnected, each camp oblivious to the relevance of the other. On one side are practices for speeding up: doing more, getting more, becoming better, faster, stronger. In this camp, we identify passions, get into a flow state, and hack everything, Tim Ferriss style; the answers are *out there*, digital tools put them all within reach, and the only question is, what's stopping you? In the other camp are practices for slowing down: mindfulness, meditation, digital detox. The answers are *in there* if you can shut out the distractions long enough to listen.

Both camps are responding to the increasing pressure that we all feel in current times. The goal of the first is the need to achieve, to stay relevant and competitive in a faster world where safety nets and social contracts are in short supply. The goal of the second is to mitigate and recover from the actual pressures of an always-on, fast-moving, competitive world. Seemingly irreconcilable, each goal points to different practices.

As we've written elsewhere,[7] this situation is complicated by the fact that the useful life of specific skills is decreasing, and it is hard to predict exactly which skills an organization will need next. Any work that can be standardized and made routine is a likely candidate for automation, and rapidly improving AI (artificial or augmented intelligence) will encroach even on some work that requires "judgment." What will remain is the subject of another report, but we believe there will still be many ways for humans to augment machines and machines to augment humans. Curiosity, empathy, and creativity, as well as resourcefulness, flexibility, and persistence, will be critical capabilities for the demands of the future. The ability to learn (new skills, new contexts, and new applications), the flexibility to apply skills and

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tools in new ways, and the creativity to create new knowledge will be paramount.

If we take as our goal sustainable, long-term performance, the practices for slowing down and speeding up can be seen as complementary rather than contradictory. Slowing-down practices have been shown to improve creativity, persistence, and empathy.[8] Speeding-up practices fuel curiosity, uncover new resources, and expose us to new ideas and contexts that may prove relevant to our own domain or pursuits. Both are critical to the ability to engage in the type of learning that we believe will be increasingly important in the workforce: that which creates new knowledge (insights, techniques, approaches), in contrast to assimilating existing stocks of knowledge.

Taken together, speeding up and slowing down form what we think of as "individual elasticity": flexibility and responsiveness in a system designed to be flexible and responsive. Individual elasticity borrows from the concept of "resilience" developed by Joshua Cooper Ramo, which is defined as being able to become stronger, not just survive or bounce back, as a result of stresses to the system.[9] This strong, flexible, responsive system—our individual elasticity—comes of cultivating both the ability to slow down and the ability to speed up. Echoes of this concept are found in Chinese yin-yang philosophy,

which describes how "opposite or contrary forces are actually complementary, interconnected, and interdependent in the natural world, and how they give rise to each other as they interrelate to one another."[10] In addition, individual elasticity depends upon developing the ability to cycle between slowing down and speeding up over periods of weeks and months—and also over the course of a day or an hour—through a set of practices that fit the cadence and rhythm that an individual needs.

Focusing on speeding up without the space or capacity to slow down and reflect can lead to burnout, or to pursuing a topic or staying on a career path beyond its viable life. Similarly, practices to slow down and become grounded can be useful and healing, but without focus, direction, and experimentation, they could lead to stagnation. We nourish our minds, spirit, and bodies through growth and exploration as well as through rest. When both sides are understood to be complementary and pursued deliberately to reinforce each other, the effect on unlocking potential is greater.

While different life and career stages may dictate a greater need for some practices over others at any given time, it is imperative for individuals to have the ability to slow down *and* speed up, and to develop an array of speeding-up and slowing-down practices to draw on over the course of a lifetime.

The Roots and Shoots framework

THINK of a tree. It is rooted to the ground. Through a system of strong roots anchored into soil and rock, the tree gets nutrients, water, and stability—all essential for the tree's health and growth. A strong tree also has branches, shoots of new growth that spread upward and outward into the sky. Through these shoots, the tree collects sunlight for photosynthesis, also essential for the tree's health and growth.

Roots and shoots are both vital—not just necessary, but interdependent, forming a cycle. We thought that this was a useful way to think about the simultaneous need in our lives to cycle between slowing down (Roots) and speeding up (Shoots) if we want health and growth.

Growth is a key differentiator in this framework. So many practices are focused on health, often defined as recovery from or resistance to stress in all the ways it manifests in our bodies, work, and relationships. There's no doubt that health alone, or the absence of harm, is a compelling goal for its own sake. Yet many of us, whether or not we acknowledge it, want something more than health and the absence of pain. Most of us once wanted to be something or do something. Most of us still do. That is the heart

of our framework, the trunk of our tree: The fundamental reason to engage in Roots and Shoots practices is to unlock our potential.

It is our contention that learning and unlearning—which, together, lie at the heart of growth—occur through the interplay of Roots and Shoots. Learning and unlearning occur on two levels. First, we have to learn and adopt new practices as well as—equally important but perhaps more difficult—unlearn and stop executing old practices that are not serving us. Second, to pursue growth, we must acknowledge that the point of engaging in new practices is to learn new skills and approaches that are most relevant to the moment at hand and that will serve us in the dynamic future. The goal is to be exposed to new ideas and new ways of looking at the world, to develop new skills and techniques, and to discover new applications of skills and tools we already have.

In our framework, we begin by identifying key *elements* of Roots and Shoots. These elements describe "how" growth and learning happen in the Roots and Shoots cycle. What does it mean to be in the Roots, in the slowing-down space? What does it mean to be in the Shoots, in the speeding-up space? These elements, which we will describe in greater detail later,

include *Rest*, *Reconnect*, and *Reflect and Reframe* for Roots, and *Act*, *Adjust and Align*, and *Accelerate and Amplify* for Shoots.

Within the broad context of the elements, certain types of activities are necessary to feed and sustain the learning cycle. This is where practices come in. Practices are discrete, tangible activities that we can build into our daily lives to help develop the capability for speeding up and slowing down in the service of our values and aspirations. Our framework identifies several "meta-practices" (such as "shape serendipity") to define the objectives that will nourish and sustain the cycle. These meta-practices help further differentiate deliberate practices from the everyday activities that consume us—the outward busyness and escapism and the inward anxiety and retrospection, which don't serve us well in navigating the changing world.

While well-developed practices already exist within some meta-practices, in others, the meta-practice defines an objective that isn't yet supported by effective, accessible practices. Some practices also align to multiple meta-practices; meditation, for example, serves to "replenish and re-energize" as well as to create space to "explore core values." Our intent with the framework is less to create an authoritative, mutually exclusive mapping of all practices than to offer a way to think about the role of the practices we have and identify what is missing.

By adopting Roots and Shoots practices and going through cycles of learning and unlearning, an in-

By adopting Roots and Shoots practices and going through cycles of learning and unlearning, an individual can discover purpose and passion.

dividual can discover purpose and passion. Sometimes, the goals we set give us purpose; ideally, our sense of purpose gives shape to our goals. And if we don't yet have goals or purpose, as human beings, we have an innate curiosity, a need for novelty and learning that must continually be fed to maintain health and sustain vitality. In the process of feeding our curiosity and deepening our understanding in specific areas of interest, we discover new avenues of inquiry and connections to other domains that pique our interest or in which we have unique capabilities. Through this branching, circling back, and aggregation of skills and knowledge flows, we may discover our sense of purpose and cultivate our passion.

How learning happens

> "The illiterate of the 21st century will not be the man who cannot read and write, but the man who has not learned how to learn"
>
> — **Herbert Gerjuoy, in *Future Shock* by Alvin Toffler**

THE Roots and Shoots framework helps highlight where our practices are out of balance and where we may need to invest. The larger goal, however, is to focus our attention and energy on developing a productive dynamic between Roots and Shoots such that we perform better and hew more truly to our purpose, no matter how the environment changes. If we think of practices such as meditation as tools that can be deployed toward multiple ends, it's worth first examining the objective—achieving growth and sustained performance improvement—to consider how unlearning and learning occur in the interplay between Roots and Shoots. Having established how this dynamic should work, we can then use the lens of unlearning and learning to consider specific practices.

The type of learning we are most interested in is integrated learning, where an individual not only gains skills or knowledge about the specific context but also generates insights and applies his or her new skills and insights to other areas. Learning that focuses only on context-specific techniques or mastering existing stocks of knowledge may be useful, but are prone to fall short in helping us navigate the changing world;[11] integrated learning, in contrast, accumulates and is constantly evolving. The former type of learning is like collecting fruit just to eat versus planting the fruit's seeds to grow more trees. Both have the potential to provide sustenance for a time, but integrated learning is like bringing fertilizer and seeds together to grow an orchard that can sustain us over time and at higher levels of performance.

The graphic on the next page identifies six elements in the Roots and Shoots that are conducive to integrated learning. Importantly, these six elements need not be explored in any particular order; there is no set pathway for learning and growth. Rather, an individual can take the opportunity to begin consciously cycling between Shoots and Roots and make a deliberate effort to connect the elements.
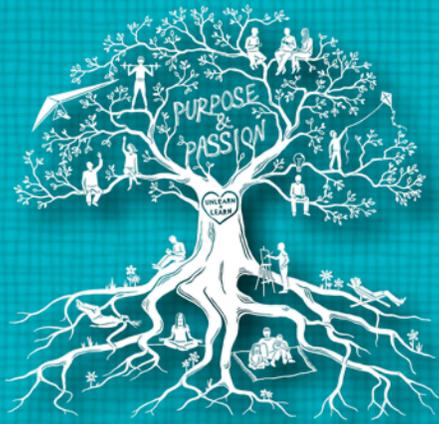
THE ELEMENTS

The elements are a methodology or approach to proactively being in the roots or shoots to accelerate learning and connect with purpose.
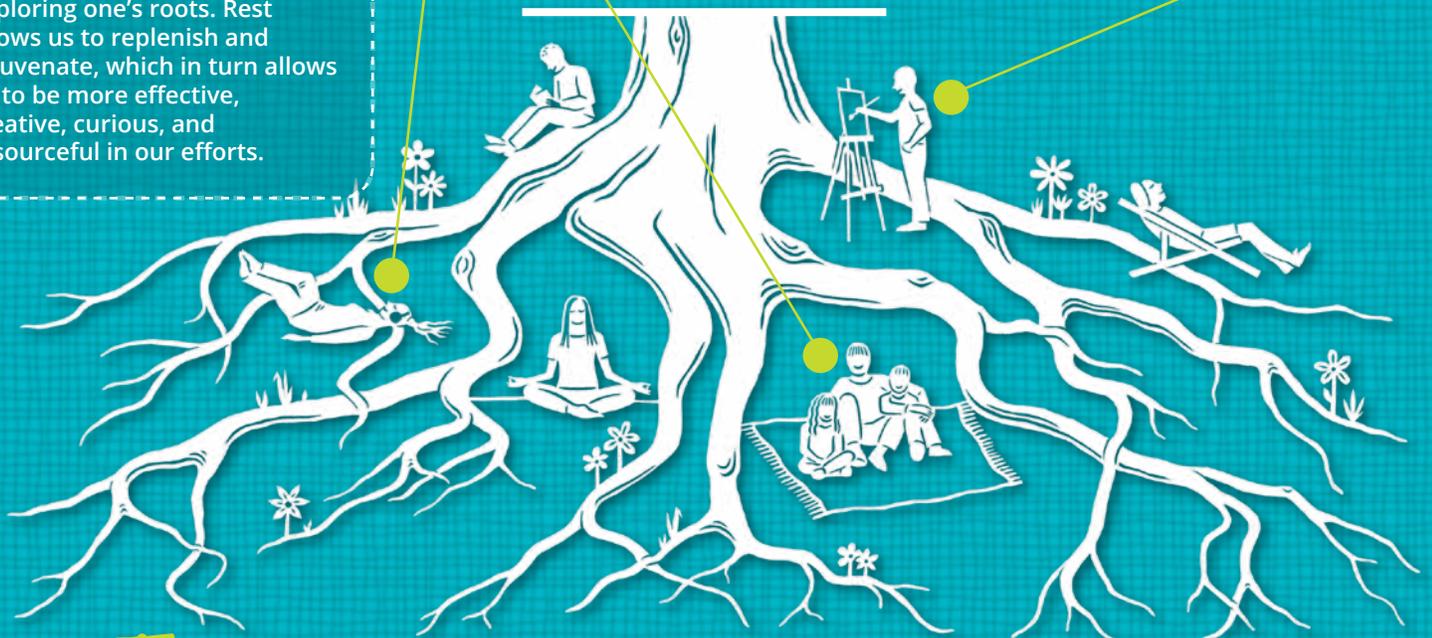
RECONNECT

Deep roots ground us. Connecting to our core values and principles provides a touchpoint and affirmation of what truly matters. The communities that surround us provide safety and stability, as well as avenues for dialogue, reflection, and reframing.

REFLECT AND REFRAME

In times of rapid change, the past may no longer predict the future. The very things that made an individual successful may actually be his or her downfall when underlying assumptions and contexts fundamentally shift. In such times, we need practices that help us adopt new perspectives to see what is no longer working, and that help us muster the courage for unlearning old patterns and learning new ones.

REST

Taking time to pause—not only as a stopgap or a reaction to constant pressure, but also to break the busyness cycle and as an antidote to the increasing inefficiency of incremental work—is the foundation for exploring one's roots. Rest allows us to replenish and rejuvenate, which in turn allows us to be more effective, creative, curious, and resourceful in our efforts.

ROOTS

entail slowing down and making space to discover and connect with the fundamental values that drive us. Roots can counter increasing stress and make us more open to exploration. A set of practices for connecting to our roots can provide a foundation for speeding up.

SHOOTS

feed creativity and empathy, can stoke commitment and a sense of purpose, and involve exploring, expanding, and accelerating learning. Speeding up in the absence of rest, reconnection, and reflection will likely lead to temporary, isolated learning.

PURPOSE & PASSION

UNLEARN + LEARN
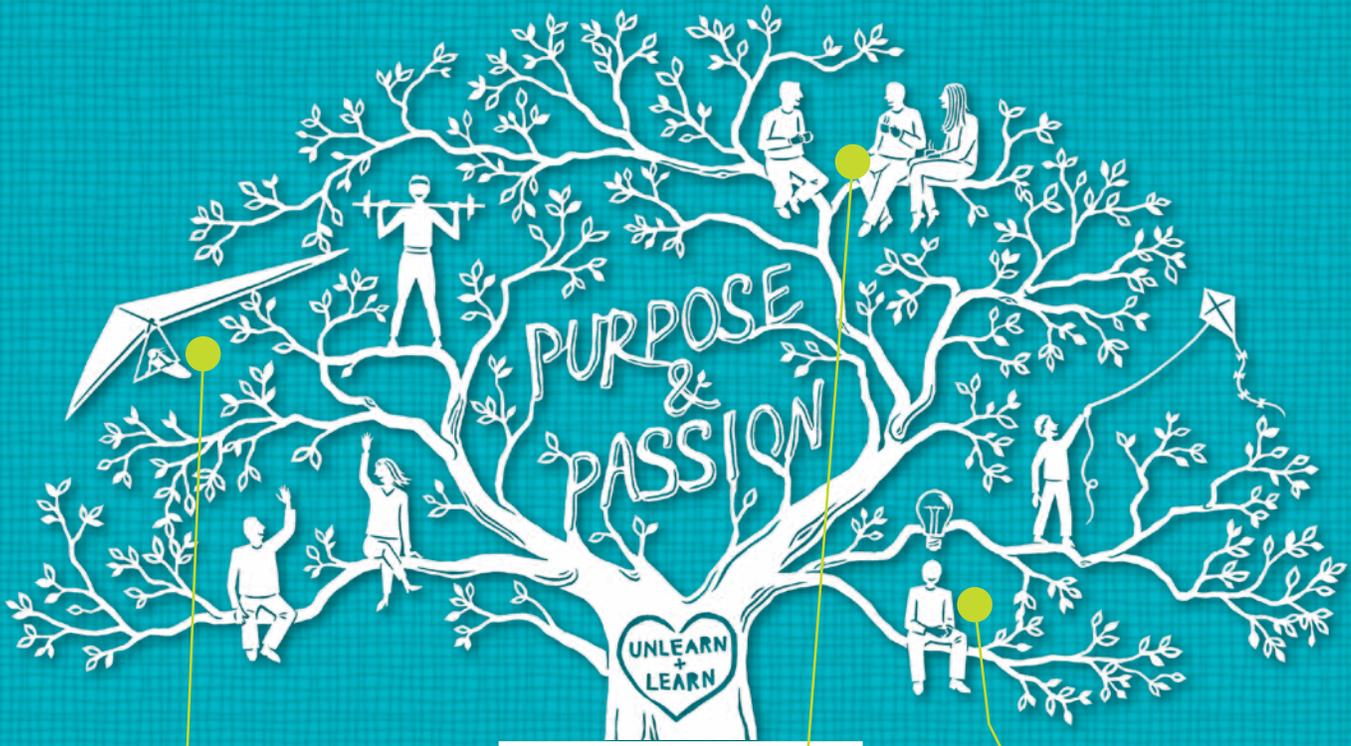
ACT

The fundamental starting point for sending out shoots, action is critical both for movement and for learning. By participating in flows and gathering data and experiences, we learn about ourselves and our environment. Being proactive and deliberate rather than reactive is a key differentiator of actions in this context.

ADJUST AND ALIGN

Learning cycles need to be rapid and iterative. With each exploratory action in the shoots, the experience and information gathered is used to assess and adjust the short-term learning focus. Similar to how a gardener prunes and uses stakes to shape growth, one's next exploratory shoots look different as a result.

AMPLIFY AND ACCELERATE

Finding leverage helps our actions have greater impact and enables us to move toward our goals more quickly than if we act alone. Amplify and Accelerate isn't about doing more or staying busy. Instead, it means deliberately looking for relevant flows in order to connect with more people in areas related to one's goals, get more data and feedback, and learn more rapidly about ways to have more impact.

In the Roots we slow down and make space to discover and connect to the fundamental values that drive us. While these types of practices have proven effective to counter increasing stress, practices to proactively connect to one's Roots also provide stability and guidance, increasing our capacity for empathy, creativity, and openness and serving as a foundation for speeding up. The elements in Roots are *Rest*, *Reconnect*, and *Reflect* and *Reframe*.

The counterpoint to slowing down, in the Shoots we *accelerate*, exploring, experimenting, and expanding our horizons. Shoots feed creativity and empathy and can stoke commitment and a sense of purpose. Speeding up in the absence of Rest, Reconnection, and Reflection and Reframing will likely lead to more busyness and sporadic, isolated learning rather than integrated learning. The elements in Shoots are *Act*, *Adjust* and *Align*, and *Amplify and Accelerate*.

Conceptually, the cycle starts in the Roots with *Rest*. In Rest, we gather the energy needed to learn and pay attention to new information. To Rest is to step away from busyness and the trap of believing that relief from the "too much on our plates" problem is "just a little more" work. As digital devices and global workforces allow work to follow us home and into weekends and vacations, true Rest becomes more important, both within the day—think nap pods in next-gen firms—and across longer periods of time. By improving our relationships with ourselves and others, Rest creates the space to be creative and open to experiences.[12]

Rest is often a prerequisite for *Act*. To Act is to take a step in a specific direction with the goal of either gathering information (about ourselves or about our environment), or putting new information (learning) into practice. In our framing, Act refers to proactive and deliberate action to move beyond thinking to doing, in contrast to the time- and energy-wasting *reaction* to external stressors. One pitfall of technologies that allow us to passively absorb endless content, no matter how informative, is that we may fail to ever take the actions that are necessary for learning and growth.

To Reflect and Reframe is to interpret the data and experience that we obtain from Acting and to reformulate assumptions to incorporate new information into our world view. One aspect of what we believe will be a more rapidly changing business environment is that underlying assumptions and contexts can and will shift. Failing to incorporate new assumptions and contexts into our thinking may keep us stuck in unproductive (or even doomed) approaches. Reflection brings awareness and helps us interpret new data, while reframing helps to assimilate new information, keeping us from reverting to old ways and old assumptions.

Reflection and Reframing suggest ways we might *Adjust* our exploratory actions to be more useful for learning and relevant to our goals. They can also highlight where we need to *Align* our actions with our core values. Adjusting and Aligning is another way we stay out of the busyness trap, ensuring that our new Shoots, our explorations and actions, are

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furthering our goals, creating productive new av-enues for additional, relevant learning, and steering clear of conflict with our core values.

Reconnecting helps us formulate goals and values, guiding what we choose to learn about. Recon-nection can offer us stability, another condition that feels increasingly scarce. Our peers are more transient, we switch jobs more often, and we have more visibility into upheaval and change around the world—but we can gain stability by Reconnect-ing with a set of values, a core community, or a place. Connecting to what really matters acts as an internal guide or lens for how to direct our actions, and is a powerful counterweight to the increasing isolation of our fast, digital world. For some people, Reconnecting might be the starting point: to reaf-firm or discover what values they hold, and to cre-ate the communities that can aid them in the work of Reflection and Reframing. However, in our busy lives, especially if we have become particularly dis-connected from the self, Reconnecting may seem impossible without the space provided by Rest and the insight generated by Action and Reflection.

Taking moments to Rest and Reconnect helps cre-ate the mind-set to *Amplify and Accelerate*. To Amplify and Accelerate is to increase one's rate of learning and impact by getting involved in activities and knowledge flows that are already underway and related to one's goals. Participating with others who are engaged in related efforts helps us gain more data and feedback more rapidly. For example, if your goal is to help the low-income population gain self-sufficiency, you might gain momentum and dis-cover alternate paths and possibilities by acting as a mentor or by getting involved in communities of others working in education, homelessness, or per-sonal technology. Having something larger to par-ticipate in, getting more feedback, and seeing bigger, faster results can be powerfully motivating and help sustain one's efforts past challenges and setbacks. As we see our learning accelerate, we may become more committed and passionate. This is also where the concept of flow is particularly relevant, as indi-viduals who can achieve flow can accelerate their learning much faster.
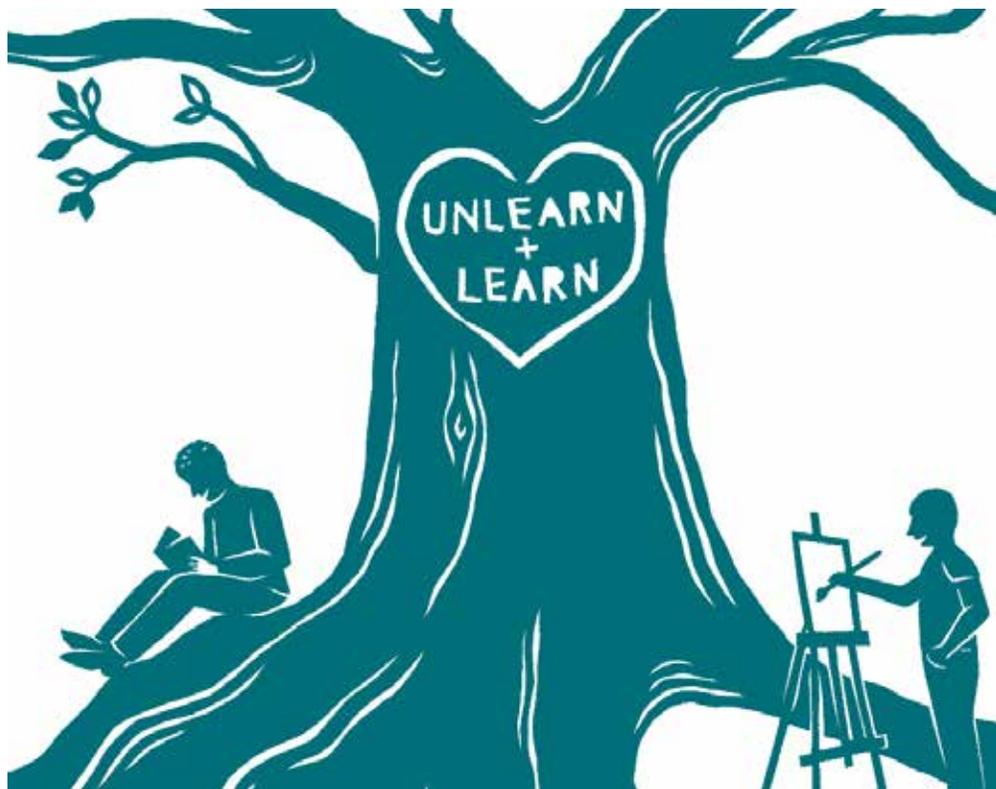
BETTERUP: COACHING AS A MEANS OF CONNECTING ROOTS AND SHOOTS

Alexi Robichaux and Eddie Medina, co-founders of BetterUp—a mobile platform designed to make executive coaching available to "everyone"—still regularly get coaching themselves. As Robichaux explains, "Reflecting on your own cognition is hard. Being aware and intentional about your own cognitive processes, most of us can't manage our psychology like that on our own."[13]

Executive and life coaching is rooted in the notion that individual development, personal and professional, is a process, and that individuals need *guidance* and *practice* to make progress toward their goals. This ongoing, iterative process—of seeking outside perspective to help connect and develop our values and actions, our goals and skills, and our well-being and our capacity for growth—is why coaching may be a useful tool to help individuals connect Roots with Shoots.

For BetterUp's founders, the "whole self" perspective provided by this type of coaching is crucial for achieving one's best results and sustaining good working relationships and behaviors. A coach can suggest and structure both introspective and exploratory activities to help individuals have the experiences and master the skills they need to improve personally and professionally. In their prior lives, they realized that many of their peers, especially those early in their careers, had tremendous talent and potential but for various reasons ended up stuck, frustrated, or self-sabotaging, seemingly unable to reach their potential. The cost to these individuals' organizations, families, and selves was not only incalculable but also seemed unnecessary. These were people with motivation and mental and financial resources, who were accustomed to setting and achieving goals and adopting new practices in some areas of life: fertile ground for coaching. But coaching was often seen as prohibitively expensive, a perk for young start-up executives or an investment by mid-career professionals looking to make the next leap.

Convinced that more people could benefit from coaching, Robichaux and Medina turned to technology to remove the barriers to resources and "democratize" coaching. The BetterUp platform matches each user with a coach, whom they meet with virtually via video chat for regular sessions. Guided by one of several "tracks" (chosen by the user), the coach also serves up virtual, "bite-sized" resources (articles, podcasts, videos, and so on) and other exercises selected to support the individual's particular needs. With the technology interface and its ability to augment the live coaches, coaching can be both more affordable, more convenient, and more readily accessible than traditional coaching or therapy would be for many people.

On the one hand, the coach helps with specific executive skills and workplace situations. A coach provides a sandbox for practicing new ways of being and interacting, a place to practice a new skill in a more forgiving environment but also get useful feedback about it. Most people are not comfortable with being uncomfortable, and in our work environments, there tends not to be a lot of safety to practice and experiment with our skills and capacities. As Medina explains, "In our work lives, there's more pressure to just get it right. People get really risk-averse and don't explore edges and don't become uncomfortable, not just because they don't like the feeling but because they feel like they are in an unforgiving environment and worry about feeding their family or paying their bills if they don't get it right."[14]

At the same time, a coaching program can support individuals in exploring their core values and in building the foundations for further exploration and pursuit in the Shoots. Employing a positive psychology approach, BetterUp focuses on building capacities—such as Hope, Efficacy, Resilience, and Optimism (HERO)—that underpin skill development. Being deficient in a capacity affects the way you approach work and life. The good news is that these capacities can be measured and developed. Robichaux points to his own tendency toward a lack of optimism and how his coach identified it and began giving him exercises to practice getting past negative thinking, effectively building his capacity for o ptimism.

Thinking about the tree, these capacity reservoirs are analogous to the depth of the Roots, determining the stability for how high and far out the Shoots can go. Augmented coaching could provide the scaffolding and curation for practices and also acts as a translator to connect the work we do in the Roots with the work we do in the Shoots, making those connections visible to the individual.

Practices to unlock potential

MANY existing practices align with the Roots and Shoots framework and have value independent of it. As described in the previous section, however, we believe that such practices have more power to propel us to realize our potential when assembled into a cohesive set that incorporates Roots and Shoots and views these practices through the lens of learning and unlearning. To that end, in the graphic on the next page, we've identified six primary objectives, defined as *meta-practices*, and listed a few examples of practices for illustration.

While the *elements* described in the preceding section can be thought of as a general approach to moving between different types of practices to generate learning and growth, the meta-practices describe specific objectives that a set of practices should achieve to facilitate the continuous process of unlocking our potential. As such, the six meta-practices do not correspond directly to the elements.

The practices listed are by no means comprehensive. One thing that is clear, however, is that some areas are associated with far more accessible and mature practices than others—particularly in the Shoots, where well-defined practices are sparse. That said, this is an ecosystem in flux, and many more practices and tools for achieving these objectives are emerging. For example, a growing number of books, talks, and seminars are devoted to various life hacks, some of which might be applicable to speeding up. Virtual communities have sprung up, allowing practices to be shared and refined more readily. In addition, technological tools (see the sidebar "Life in the emerging 'transtech' world") are attacking many barriers to accessing and adopting of both Roots and Shoots practices.

There is no one right set of practices. The idea is for individuals to assemble their own set of practices that collectively support learning and unlearning in a way that is relevant and feasible for each person.

> Ideally, each person will be able to adopt practices both large and small, those that shape our years and those that shape our minutes, in order to continuously build the capacity for learning and growth.

The relevant practices may change over time and depend on a variety of factors. Ideally, each person will be able to adopt practices both large and small, those that shape our years and those that shape our minutes, in order to continuously build the capacity for learning and growth.

The meta-practices that support learning and growth in the Roots and Shoots cycle include:

- **Replenish and re-energize**: One of the more common outcomes of today's always-connected, never-done-with-work lifestyle is burnout, or perhaps more commonly, the less visible and more insidious experience of constant fatigue. Consciously choosing to step out of the busyness is the first step. We can force a break, for example, by scheduling periodic breaks on our calendars, using a personal tracker to remind us to take micro-breaks every hour, maintaining separate phones and computers for work and personal use, or, more dramatically, by taking sabbaticals. Having forced a break, specific additional practices can help ensure that we are

ROOTS AND SHOOTS META-PRACTICES

These meta-practices define the critical objectives for feeding and sustaining the learning cycle. The practices listed here illustrate some of the potential ways to achieve those objectives.

EXPLORE CORE VALUES

Proactively explore what lies beneath the surface.
- **Practice deep introspection**: Explore your own values, motivations, and behavior through practices such as therapy and life coaching.
- **Journal and tell stories**: Refine thoughts and ideas by putting them down on paper and telling them to others.
- **Engage in deep discourse**: Pressure-test and cement ideas and concepts through one-on-one discussion.

REPLENISH AND RE-ENERGIZE

Take time to slow down and fight the epidemic of constant "busyness."
- **Practice mindfulness**: Develop practices around meditation and its variants to be more present.
- **Engage in energy and attention management**: Focus on managing your energy over the day (or week) as opposed to managing to a schedule.
- **Implement digital detox**: Separate yourself from digital devices and distractions for set periods of time.
- **Say no**: Make conscious decisions to forego some potential opportunities.

CULTIVATE COMMUNITY

Seek external validation of reflection and reframing.
- **Join communities of interest**: Participate in niche communities dedicated to deep exploration of narrow topics.
- **Join communities of practice**: Participate in communities of practice, such as religious communities, which are rejuvenating and replenishing.

ROOTS

entail slowing down and making space to discover and connect with the fundamental values that drive us. Roots can counter increasing stress and make us more open to exploration. A set of practices for connecting to our roots can provide a foundation for speeding up.

SHOOTS

feed creativity and empathy, can stoke commitment and a sense of purpose, and involve exploring, expanding, and accelerating learning. Speeding up in the absence of rest, reconnection, and reflection will likely lead to temporary, isolated learning.

(Tree illustration with text: PURPOSE & PASSION, UNLEARN + LEARN)

SHAPE SERENDIPITY

Make space for the unplanned to surprise you.

- **Take a sabbatical**: Take time off on a periodic basis to explore new topics without the distraction of current work or activities.
- **Plan open time**: Create open spaces in your schedule to allow for unplanned events and opportunities to connect with others. This can be particularly useful when traveling.
- **Say yes**: Be open to random opportunities that are outside of the norm.

EXPLORE EDGES

Cultivate a sense of curiosity, possibility, and imagination.

- **Maintain a broad social network**: Break out of the echo chamber by including acquaintances with differing views, rather than limiting one's network to close friends.
- **Explore new topics**: Periodically attend a class or conference on an unfamiliar topic.

BE UNCOMFORTABLE

Expand your comfort range—emotionally, mentally, and physically—and cultivate a growth mind-set and a beginner's perspective.

- **Practice failing**: Take on a project at which you are likely to fail. Become comfortable with ambiguity and recovery, and build your risk tolerance for failure.
- **Shift parameters/repackage risks**: Make implications and risks more manageable. One way to do this is through play.
- **Focus on process and practice, not outcomes:** Develop the ability to debrief effectively after failures to get past initial emotional responses and develop strategies for future challenging situations.
- **Undergo voluntary physical discomfort**: These may include travel, extreme physical challenges, or periodic deprivation.

getting replenished and re-energized by our breaks—mentally, physically, and emotionally.

- **Explore your core values**: Another downside of being constantly busy is that it is difficult to take time for introspection. Over time, we become disconnected from even knowing what we value, which can lead to a crisis of identity and hopelessness or despair when difficulties inevitably arise in our daily lives. Too often, it takes a traumatic experience—the death of a loved one, an unexpected illness, getting fired—to force us to step back and examine our core values and aspirations. As a result, by the time we look inward, our day-to-day life might be far out of line with our core values, and we may hide from that awareness when it feels threatening or unmanageable. Proactive, ongoing practices aimed at exploring one's core values can help make introspection safe and productive.

- **Cultivate community**: In parallel to introspection and internal validation is a need for external validation of one's Reflection and Reframing. Given that, the process of cultivating community, done right, is one that requires us to make ourselves vulnerable, to expose our goals and core values, and our thoughts about them, to the light of day. External validation is most effective with a small close-knit community: one that understands you and your context as much as it does the issue at hand, a community that will push and prod your perspectives and conclusions but one that will also support you in taking action upon them.

- **Explore edges**: In the corporate world, most disruptive innovations come from "edges"—the unlikely candidate, the random adjacency that the market leaders aren't paying attention to. For individuals, too, edges—such as the unlikely connection, the random skill that you've ignored in adulthood—can be fertile ground for growth. This is an underdeveloped area, and new practices are needed to help us find relevant edges without being so prescribed that we miss the interesting adjacencies. At the same time, we also need practices that expose us to more edges and help us understand and make sense of what we find in the edges we choose to explore. Online

social networks offer one way to access more edges, but doing so effectively involves using social media in a counterintuitive way, paying less attention to close friends and family who are similar to us and cultivating looser connections with a broader network of people whose beliefs and behaviors are less similar. This practice can expose us to more nuggets of information, ideas, and perspectives than we would encounter among close friends.

- **Be uncomfortable**: Being out of your comfort zone is one indication that you have an opportunity to learn something new. Being comfortable, in contrast, occurs when you are on automatic pilot, where the brain is using neural shortcuts to deal with what is expected as efficiently as possible. When uncomfortable, your brain and all of your senses are paying attention. They are trying to map the new experience or new information and make sense of it. Learning something new is usually inherently uncomfortable at the onset.

- **Shape serendipity**: One of the more uncomfortable tasks for many of us in today's rigidly scheduled world is to have unscheduled time. Given how busy we are, and how busy we feel we "should" be, having any unscripted free time seems blasphemous. This calendar-filling tendency only does one thing: ensures that there will be no surprises. At best, you address what is on your plate. There is little opportunity for anything new—a thought, an idea, an experience—to enter your world. One practice to counteract this is to actively schedule free time, especially when traveling, but also in your regular schedule. The idea is to leave space, not just as a means of taking a breather, but with the intent to say "yes" to an invitation or request, even if it seems random and the payoff isn't immediately clear. Leave space so that you can accept the unexpected but intriguing request and approach it with an open mind, seeking first to learn, then to build on—rather than critique—the ideas presented.

Finally, connecting Roots practices to Shoots practices in a meaningful way isn't easy. It requires being able to occasionally step back and objectively look at our actions and insights to identify patterns

SIGNALS FROM THE ROOTS

Many practices are associated with Roots; some have been around in some form for millennia. But while the practices might not be new, there are new organizations, communities, and tools forming around them that suggest increasing interest and a new role for old practices in tomorrow's hyper-connected, technology-saturated world. The following examples highlight some of the new approaches to help enable Roots practices through, and in spite of, technology.

Wisdom 2.0

Every year thousands of people—from the leaders and employees of tech giants such as Google, Facebook, and LinkedIn to Buddhist monks and world-renowned mindfulness practitioners to yogis, artists, and healers to scientists, social activists, and politicians—convene in San Francisco for the Wisdom 2.0 Conference. What they have in common is a desire to learn to live with "greater wisdom, purpose, and meaning while using technology in ways that create a more open and healthy culture."[15] What started as a small, interactive gathering of 325 people in 2009 has grown to one of thousands that features hosted conversations, practice rooms and facilitated practices, and community-led breakouts. Additional satellite conferences, meet-ups, and other gatherings have sprung up around the globe, often following the same paths as the tech industry with which it is linked. Coinciding with an increasing percentage of Americans reporting not being affiliated with a religion, founder Soren Gordhamer believes interest in the conference reflects an unsatisfied need for deeper meaning and connection.[16]

Each conference has a slightly different theme, and participants are guided through such topics as wisdom in society, veteran's rights, education, coaching, mindfulness, politics, business, and neuroscience.[17] For example, at the 2014 conference, Arianna Huffington shared how her own breakdown helped her redefine success.[18]

Envisioned as a collaboration with the tech industry, Wisdom 2.0 has sparked ardent discussion—and communities for exploring new practices—around mindfulness in our high-speed age in Silicon Valley and globally.

Digital Detox

In 2012, when founders Levi Felix and Brooke Dean returned to the United States from a two-and-a-half-year, 15-country journey, society had changed: "Screens were everywhere and everyone was on them."[19] Recognizing that the struggle their peers were having with disconnecting from their personal technology and engaging with their immediate surroundings was affecting personal relationships and well-being, the pair held a 10-person "detox" retreat. The business now includes personal wellness retreats where technology and networking are strictly prohibited and where the focus is on creating space for people to think deeply and creatively, as well as corporate events—Device-Free Drinks and Camp Grounded: Summer Camp for Adults—to help people reconnect with their non-digital lives and gain inspiration, balance, and connection. A self-proclaimed "slow-down" rather than a start-up, the Digital Detox organization is guided by the notion that "technologies should serve as tools to connect us . . . as we celebrate life, truly improving our unique existence, instead of distracting, disturbing, or disrupting us."

While they believe we are at a critical juncture as a society for consciously rethinking our relationships with devices by "developing new positive social norms and etiquette, and by changing the ways in which we build and design our digital technologies,"[20] a growing body of research is delving into the effects of the always-on world:

- The average employee needs 25 minutes to recover from an interruption and gets only 11 minutes between interruptions.[21]

- The average computer user checks 40 websites a day and switches programs 36 times an hour.[22]

- One out of ten Americans reports depression; heavy Internet users are 2.5 times more likely to be depressed.[23]

For Digital Detox, the mission is to inspire, educate, and empower their peers to create more mindful, meaningful, and balanced lives, both online and off. "It's not just about unplugging. It's about rediscovering what happens when we truly plug into life."[24]
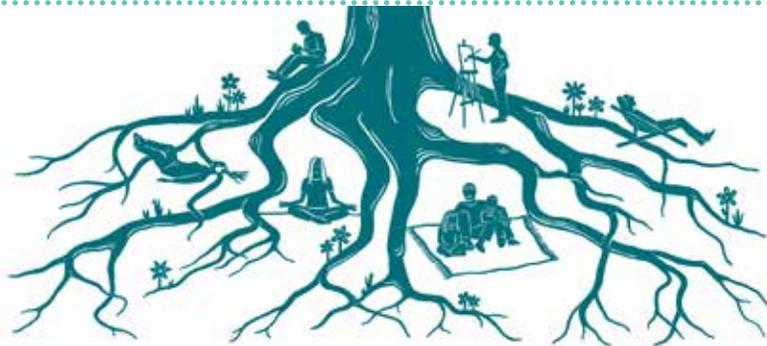
SIGNALS FROM THE ROOTS, CONT.

Headspace

In a recent talk, Andy Puddicombe recounted his early thoughts of meditation as an aspirin for the mind: "You get stressed, you do some meditation." It was while studying meditation as a Tibetan monk that he realized it could be applied as a preventative practice.

During his studies, Puddicombe developed a greater appreciation and understanding of the present moment—not being lost in thought, not being distracted, not being overwhelmed by emotions. "Especially," as he describes, "when there is something we can do about it. Where there is a positive, practical, achievable, scientifically proven technique, which allows our mind to be healthier, to be more mindful, and less distracted."[25]

Hoping to bring mindfulness to the masses, Puddicombe co-founded Headspace, a mobile meditation platform. The idea behind the platform is that many people don't practice meditation because they don't know how and it seems intimidating or too time-consuming. However, drawing on research that suggests just 10 minutes of regular meditation can bring significant benefits, the Headspace platform serves up 10-minute meditation practices to subscribers on their mobile device. The practices vary from simple breathing meditation sessions to guided practices that help individuals build a toolkit from which to develop their own practice and positively increase mindfulness.

Headspace now reaches over 8.5 million users across 200 countries, and features hundreds of hours of guided meditation, tailored to specific topics such as stress, anxiety, focus, creativity, and relationships. The service is known for democratizing meditation and causing a cultural shift in how we think and talk about it.[26]

SIGNALS FROM THE SHOOTS

Individuals need techniques for reliably and systematically gathering information and using it to inform their goals, identify fertile new sources of learning, and accelerate their progress and impact. In general, these practices are less well-defined. We can find elements that support our exploration of Shoots in a variety of current offerings and organizations. The following examples highlight some of the approaches to help enable Shoots practices.

Flow Genome Project

As Steven Kotler explains in *The Rise of Superman*, both he and collaborator Jamie Wheal came to understand the power of flow to improve an individual's circumstances, as a result of experiencing life-threatening conditions. First defined by psychologist Mihaly Csikszentmihalyi, flow is a state of concentration that balances the challenge of a task with the skill of the individual to achieve "a peak state where we both feel our best and perform our best. It is a transformation available to anyone, anywhere, provided that certain conditions are met." While in flow, the brain takes in more information per second and processes it more deeply, which has been shown to improve learning, creativity, and optimal performance.[27]

For Kotler and Wheal, flow allowed them to get past what seemed to be debilitating conditions, so they became interested in using the newer techniques of brain imaging, biochemistry, and quantified self consumer tracking tools to quantify and better understand what flow is and in identifying techniques for reliably entering it. They found that "flow hacking"—deliberately entering flow states—is more common among adventure sports athletes and other extreme performers than the average population. The idea behind the Flow Genome Project is to bring concepts of flow hacking from the extreme to the mainstream. For Kotler, the finding that, from a neurochemical perspective, the brain can't tell the difference between physical consequences and emotional ones suggests that taking social risks— such as sharing ideas at meetings or defending an unpopular position—can trigger a flow state similar to those of adventure athletes. The key for flow is focus, and risk or perceived risk drives focus.[28]

The goal of the project is to reverse engineer flow and open source it to the world. Researchers have identified 17 "triggers" across four categories (psychological, environmental, social, and creative) that are thought to facilitate entering a flow state. These triggers point to possible individual practices and have implications for our modern work environments (for example, balancing the need for intensely focused attention with the need for rich interactions among diverse participants). Kotler points to tactics the late Steve Jobs used that "massively upped the amount of novelty, unpredictability, and complexity in the environment," as a means of increasing flow, innovation, and creativity.[29]

In addition to sharing the story of the potential of flow (through books and documentary films), the Flow Genome Project has built a training program and the Flow Hacker Nation, a community of 500+ individuals who are experimenting with practices to enter and support flow. They plan to make these learnings more widely accessible with an X Prize competition to build an iFlow app.

Galvanize

In 2012, Jim Deters, Lawrence Mandes, and Chris Onan founded Galvanize on the belief that education and growth should be available to anyone. They envisioned a community that would provide life-changing opportunities to anyone with aptitude and ability, regardless of background, through technology education and a dynamic network of students, entrepreneurs, investors, corporate professionals, and mentors, for ongoing growth and development. So far, Galvanize offers 12- and 24- week coding boot camps in web development and data science, taught by PhDs from some of the biggest tech companies. Anyone looking to "level up"—especially those in underrepresented groups in the tech industry—could be a professional programmer upon graduation. The company also offers co-working space for tech start-ups and an array of events and activities for networking and career development.[30]

Cont.

SIGNALS FROM THE SHOOTS, CONT.

By bringing industry and education together, students learn the practical skills and concepts that make an impact on the job and gain the less tangible skills and exposure needed for landing a 21st-century job, despite entering with varying degrees of proficiency. This was Tim Chan's experience. After 10 years designing drugs in the pharmaceuticals industry, Chan felt that pharma research was on the decline. He recognized parallels between making molecules and the data science boot camp in Seattle—having had no coding experience in the past 15 years. Aided by Galvanize events and support, Chan landed a job in product analytics where he uses data to answer questions about how the product is doing, where the problems are, and which demographics are enjoying the product. With venture funding of $85 million, the company currently operates six campuses and was recently awarded $1.3 million in funding by the State of New York for a planned NYC campus to support workforce development aligned with 21st-century careers.[32]

Organizations such as Galvanize support Shoots practices by providing both relevant knowledge, opportunities for action and application, and active communities where individuals can get feedback and rapidly learn how to have greater impact.

Embassy Network

In 2012, former NASA engineer Jessy Kate Schingler helped turn an eight-bedroom San Francisco mansion into a shared residence and experiment in co-living called the Embassy that eventually became the flagship of the Embassy Network. The Embassy houses a number of core "resident contributors" but also has short-term guest accommodation, co-working space open to non-residents, and ample common space such as a kitchen where group meals are prepared, parlors for the weekly salon, and craft and performance spaces. The emphasis is on attracting short- and long-term residents who want to collaborate, contribute, and participate.

The Embassy and multiple other "intentional communities" gained traction amid tight housing stock and a thriving technology boom that led young professionals to seek more economical solutions to housing and feeding themselves, but they are driven as much by a desire for community as a desire for economies of scale. The Embassy Network now includes eight homes across four countries, each reflecting the founders' learnings about the management and design principles needed to create a vibrant environment that facilitates learning and growth opportunities (for example, the mix of long-term and short-term residents, the ratio of common and private space, house governance, and financial management) while supporting basic needs for stability and connection.[33]

Advocates of co-living and intentional communities see these arrangements, which provide comfort and friendship along with inspiration and innovation, becoming increasingly important as our society morphs into the *networked individualism* defined by sociologist Barry Wellman: loose, technology-driven networks where direct competition for resources, jobs, and so on—decreases.[34]

While co-living might not be for everyone, many intentional communities host events—including cultural, intellectual, social, and technology-related ones—that are open to the public and offer some of the community experience. As Schingler explained in a newspaper interview, "We're not trying to build isolationist, internally focused communes out in the middle of nowhere; we're rebuilding cities. It's how our generation likes to work, and it's how I think we like to live."[35]
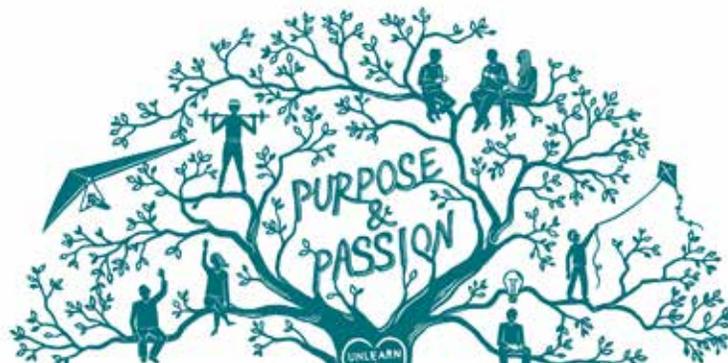
Why is this hard?

ADOPTING new practices is hard. New practices ultimately involve forming new habits and, often, breaking old ones. So all of the research on behavior change applies. It requires time and effort, which, in the midst of our connected busyness, can be in short supply.

As anyone who has tried to take up meditation or who has attended a Meetup on an entirely unfamiliar topic knows, quieting the mind and being open to learning from new experiences isn't always comfortable. Other obstacles include being unaware of what practices are available or of how to use them; not believing in the benefits enough to commit to developing a practice; perceived lack of social acceptance for practices that seem "woo-woo" or not professional; and the lack of a supportive community to deepen one's pursuit of the practice. Instruction and a guide can help. Immersive experiences such as retreats or even in-person events can help give practices a chance to stick.

Recognizing the growing interest among corporate and business professionals in individual practices and performance, organizations such as 1440 Multiversity (for the number of minutes in a day) are experimenting with immersive campuses that combine professional development topics with more traditional wellness retreat practices such as guided meditation. At the same time, traditional corporate training programs are increasingly being supplemented with a greater array of well-being support.

> It requires time and effort, which, in the midst of our connected busyness, can be in short supply.

Perhaps these moves reflect a growing recognition of the interrelationship between talent development and individual well-being in both the employee experience and overall workforce planning.

Meaningfully connecting Roots and Shoots *is* hard, but it also is not. It truly is a case of *small moves, smartly made, setting big things in motion*. There are numerous "micro-practices" that can be deployed immediately, and more are being developed all the time, thanks to the hacker mentality developing around speeding up and slowing down. For example, one simple tip from the co-founder of Digital Detox is to buy a basic "dumb" alarm clock in lieu of using a smartphone as an alarm to wake up in the morning. This small move helps create a barrier to getting sucked into the world of work and distraction first thing in the morning (and last thing at night). Another simple practice is to pick a time during the morning commute to do a brief breathing meditation every day; our commutes already are part of our routines and have the added benefit of being a time when we have already pried ourselves away from home and family and are not yet visible to co-workers. Five to ten minutes of deep breathing can help clear the mind and awaken the body for workers who don't believe they have time for meditation.

One barrier to adopting new practices, access—either because there are no locally available instructors or because the cost is prohibitive—is being

addressed in interesting ways through the power of technology. The digital environment, in some ways the villain in our busy lives, can also be our ally. Fitness trackers put a trainer and personal motivator on our wrists, Headspace puts a meditation leader in our ear, BetterUp brings an executive coach to our desks and phones. In fact, our phones can provide much of the support and guidance we need, whenever and wherever, for a nominal fee. And we are only at the beginning of that technology-enabled revolution. The emergence of transformative technologies as a sector (see the sidebar "Life in the emerging 'transtech' world"[36]) is suggestive of how technology might help us better understand ourselves and address our unique needs. Nichol Bradford, co-founder of the TransTech Alliance and a leading advocate of this emerging sector, believes that the transtech market will continue to grow as a result of societal preoccupation with health care costs—although the health care sector (and scientific research) is currently hidden within a multitude of other markets, such as the $446 billion fitness and mind-body market, the $432 billion preventative health market, and the $150 billion weight loss market.[37]

The prospect of navigating your own ship through a technology-enabled future may seem exciting and scary in equal proportion. In the graphics on pages 26–29, we provide some examples of small moves that can allow you to get started on developing new habits around Roots and Shoots. These are not all digitally enabled practices; a good portion of them are traditional, involving activities such as putting pen to paper and exploring the physical world. The list is also not meant to be exhaustive; rather, it aims to trigger some ideas for getting off the ground. Most of these are personal practices that we, the authors, have tried (with varying levels of success) to kick-start our own Roots and Shoots development.

One important element in getting these practices to stick, in our experience, is a shift in mind-set. A friend of one of the authors, a human resource executive at a social network company, once stated that many of us tend to frame life by anchoring around work. What if we flipped that around? Instead of "taking time off work," could we "take time into life," whether for taking a vacation, exploring a new idea, learning a new skill, or caring for a sick child or parent? This shift in anchoring can make a world of a difference in recognizing the value of developing new practices—moving us from a short-term, work-focused mind-set to a long-term, life-focused one.

While we provide some guidance on how to get started on developing new habits and practices, we would be the first to acknowledge that some of the barriers that stall that growth are real. Kids' schedules have to be managed, political battles at work exist, people get sick, and bills need to get paid. All of these require time, energy, and mindshare. Here again, the longer-term, life-focused mind-set can come into play, helping us build momentum and providing motivation for overcoming short-term setbacks. A commitment to get started with one simple practice that requires little time, energy, or mindshare is a good place to begin. We believe that even one small practice can trigger a positive cycle of change, which, over time, will lead to increasing benefits and greater impact.
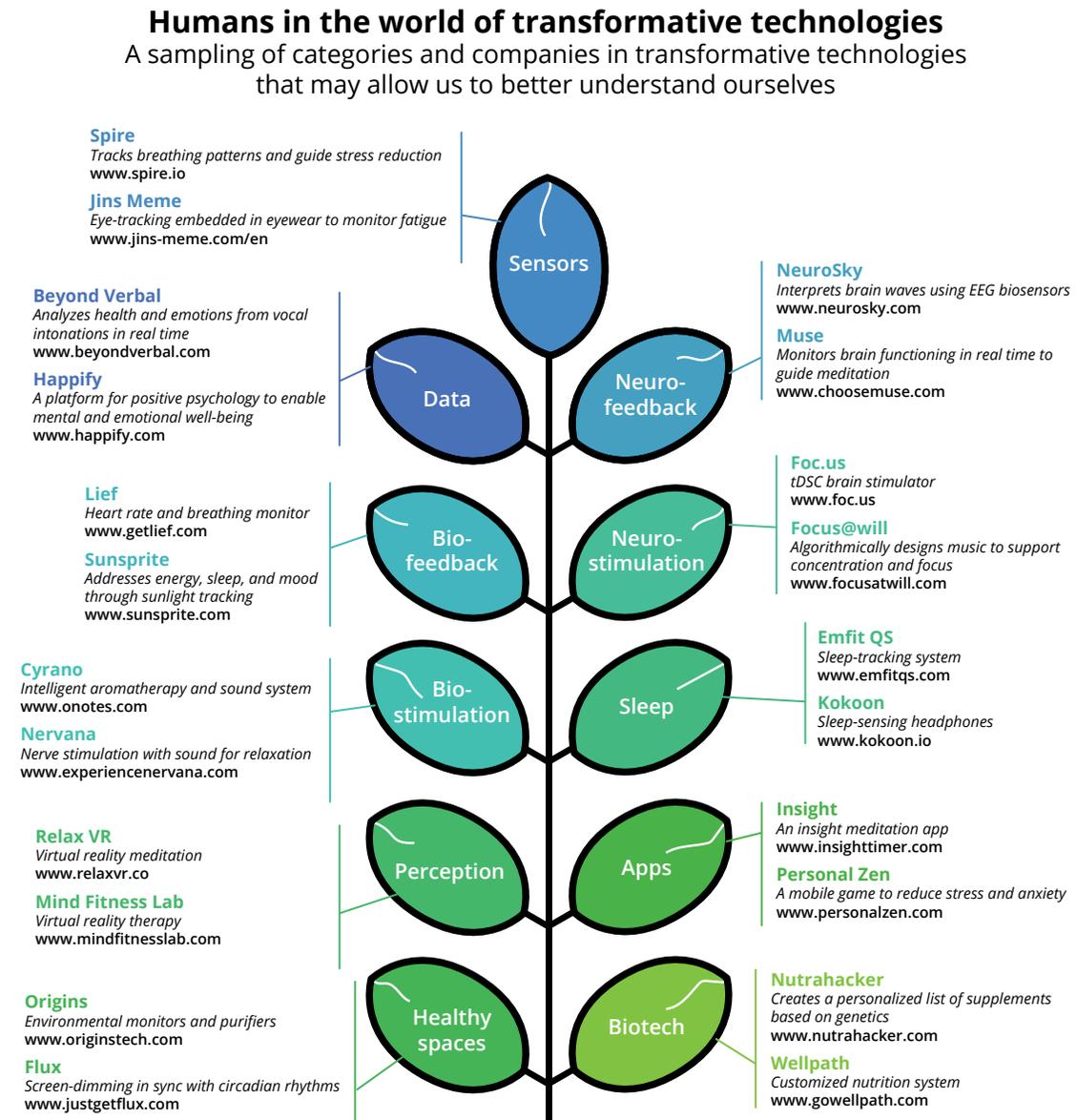
LIFE IN THE EMERGING "TRANSTECH" WORLD

Transformative technologies (collectively referred to as "transtech") are an emerging collection of scientific, research-based technologies designed to make mental and emotional well-being more scalable, accessible, and affordable. While still nascent, we expect this field to grow due to the convergence of easier supply—transtech piggybacks on exponential technologies such a computing power, artificial intelligence, and connectivity—and growing demand—which reflects the increasing stresses of our time.

The sampling of categories and companies that are part of transtech shown in figure 1 (excerpted from the annual *TransTech 200* list)[38] gives a sense of the depth and breadth of this evolving movement.

Figure 1. Examples of transtech categories and companies

Humans in the world of transformative technologies
A sampling of categories and companies in transformative technologies
that may allow us to better understand ourselves

Spire
Tracks breathing patterns and guide stress reduction
www.spire.io

Jins Meme
Eye-tracking embedded in eyewear to monitor fatigue
www.jins-meme.com/en

Beyond Verbal
Analyzes health and emotions from vocal intonations in real time
www.beyondverbal.com

Happify
A platform for positive psychology to enable mental and emotional well-being
www.happify.com

Lief
Heart rate and breathing monitor
www.getlief.com

Sunsprite
Addresses energy, sleep, and mood through sunlight tracking
www.sunsprite.com

Cyrano
Intelligent aromatherapy and sound system
www.onotes.com

Nervana
Nerve stimulation with sound for relaxation
www.experiencenervana.com

Relax VR
Virtual reality meditation
www.relaxvr.co

Mind Fitness Lab
Virtual reality therapy
www.mindfitnesslab.com

Origins
Environmental monitors and purifiers
www.originstech.com

Flux
Screen-dimming in sync with circadian rhythms
www.justgetflux.com

NeuroSky
Interprets brain waves using EEG biosensors
www.neurosky.com

Muse
Monitors brain functioning in real time to guide meditation
www.choosemuse.com

Foc.us
tDSC brain stimulator
www.foc.us

Focus@will
Algorithmically designs music to support concentration and focus
www.focusatwill.com

Emfit QS
Sleep-tracking system
www.emfitqs.com

Kokoon
Sleep-sensing headphones
www.kokoon.io

Insight
An insight meditation app
www.insighttimer.com

Personal Zen
A mobile game to reduce stress and anxiety
www.personalzen.com

Nutrahacker
Creates a personalized list of supplements based on genetics
www.nutrahacker.com

Wellpath
Customized nutrition system
www.gowellpath.com

Categories: Sensors, Data, Neuro-feedback, Bio-feedback, Neuro-stimulation, Bio-stimulation, Sleep, Perception, Apps, Healthy spaces, Biotech

Source: "TransTech 200," http://transtech200.com/, accessed January 16, 2017.

GETTING STARTED

This is hard, but it is also not. Small moves, smartly made, can set big things in motion. There are many examples of micro-practices to try now, and more are emerging all the time.

EXPLORE CORE VALUES

Proactively explore what lies beneath the surface.

- **Explore fundamental topics** through a resource such as The School of Life, and recognize your core values.
- **Use a mobile resource** such as BetterUp to explore core values and conflicts.
- **Take online personality tests** such as the MBTI to better understand your personality traits.

- **Start a gratitude journal.** Focus on developing a positive mind-set.
- **Develop your personal narrative.** What values do you want to manifest in this world, and how?
- **Set some goals**, both long term and short term.
- **Get a life coach** to serve as an external reflection of your strengths and aspirations.

ROOTS

entail slowing down and making space to discover and connect with the fundamental values that drive us. Roots can counter increasing stress and make us more open to exploration. A set of practices for connecting to our roots can provide a foundation for speeding up.

REPLENISH AND RE-ENERGIZE

Take time to slow down.

- **Use an app** such as Headspace or Insight to try a meditation practice.
- **Use a device** such as Spire to manage stress through breathing.
- **Use an online tool** such as Focus@will to sustain focus using music.
- **Use an activity tracker to drive better sleep habits.**

- **Start a digital detox habit.** Spend one day a week or a period of time every day (such as mealtimes) without any digital devices.
- **Do an energy/time audit** using a time tracker such as RescueTime. Become aware of where you spend your energy and what energizes you.
- **Do walking meetings when possible.** Find moments to get an energy boost throughout the day.

CULTIVATE COMMUNITY

Externally validate reflection and reframing.

- **Use social media tools** such as LinkedIn, Facebook, or Twitter to develop and cultivate communities on particular topics.
- **Participate in online forums** on topics of interest.

- **Get an accountability buddy.** Engage someone who knows you and who will hold you to your goals.
- **Build your personal council.** Establish your own "board of directors" to advice on work and life matters.

This is hard, but it is also not. Small moves, smartly made, can set big things in motion. There are many examples of micro-practices to try now, and more are emerging all the time.

EXPLORE EDGES

Cultivate a sense of curiosity, possibility, and imagination.

- **Expand your social media circles** (on Facebook, Twitter, LinkedIn, etc.) to include those not like you, and try to understand how they see the world.
- **Dive deep into a new topic on an online forum** such as Reddit.
- Use a platform such as Meetup to **find communities to engage on a new topic**.

- **Take a course** in a topic that is new to you: online, at a local college, through an entity such as General Assembly or Dev Boot Camp.
- **Volunteer** to support an edge or activity that interests you.
- **Go underground in your own city**—explore a neighborhood, participate in a festival, etc.

BE UNCOMFORTABLE

Expand your comfort range—emotionally, mentally, and physically—and cultivate a growth mindset and a beginner's perspective.

- **Have an active voice in an online forum.** Put yourself out there and participate in the discourse.
- **Learn a new language** using an app such as Duolingo.

- **Take an improv class.** Learn to fail and rethink risk-taking.
- **Eat out alone** and look to meet people rather than hide behind a phone or a book.
- **Fast.** Increase your tolerance for feelings of discomfort.

SHOOTS

feed creativity and empathy, can stoke commitment and a sense of purpose, and involve exploring, expanding, and accelerating learning. Speeding up in the absence of rest, reconnection, and reflection will likely lead to temporary, isolated learning.

SHAPE SERENDIPITY

Make space for the unplanned to surprise you.

- **Blog** about a topic or perspective—personal or professional—that you care about. Put yourself out there to be discovered.

- **Block a portion of your calendar** each week to make space for the unplanned.

- **Add an extra day to any planned travel.** Fill that day by extending what was most interesting during the rest of the trip.

- **Stay at a hostel/hotel hybrid**, such as the Embassy Network, Zoku, or Jam, while traveling rather than at a chain hotel, and interact with the community.

IMPLICATIONS FOR INSTITUTIONS

While the practices described in this report are directed at individuals, institutions also have a role to play, primarily by making space for and encouraging employees to adopt practices that support well-being and growth. Doing so may lead to not only a more engaged and satisfied workforce, but one that will likely improve its own performance and the performance of the company as employees continuously learn new skills and create new, relevant connections and knowledge. As we shift from a world where value was created by scalable efficiency to one where value is created by scalable learning, organizations will need a workforce capable of constant learning and evolution. And the corollary will also likely hold: The most valuable talent will prefer organizations that support the individual in that constant learning and evolution.

The future of work: Which skills will be most valuable in the future?

We came to the above conclusion based on what we know of how the external forces shaping the business and consumer environments are changing and how organizations need to change in response. Companies and individuals will face new challenges and opportunities as exponential technological advances yield powerful new tools for creating products, connecting with markets, and doing work in new ways. Many routine tasks (both blue-collar and white-collar) will be taken over by robots, automation, and artificial intelligence. What will remain? Whether they augment machines or are augmented by machines to work in new ways, we believe humans still have important work to do.

What humans will do best is deal with "exceptions"—requests and situations that don't fit routine processes. Many exceptions require curiosity, empathy, and creativity, as well as imagination, resourcefulness, divergent thinking, and persistence, to resolve. Exceptions often look like an obstacle or difficulty initially, slowing down the process and gumming up the system. The process of resolving or mitigating an exception, however, can also uncover new opportunities, such as a way to better serve a customer segment or to improve a product. The practices around Roots and Shoots are focused on developing and exercising the individual's muscles for curiosity, empathy, and creativity. Thus, employers that enable these practices can benefit in the short run by being better equipped to address the growing volume of "exceptions," and in the long run by being able to generate revenue streams and businesses built around insights gained from handling exceptions.

Winning the war for talent: How can you attract the best talent to work for/with you?

Corporations spend, and will continue to spend, enormous resources trying to attract and retain the "best talent" from an increasingly scarce pool. These largely financial strategies still focus more on attracting candidates and retaining talent to fit precisely defined job descriptions for current needs than on developing the less-clearly-defined skills the firm will need in the future. This leaves open an opportunity to focus on developing talent. Technical skill development will continue to be important, but increasingly, "human" talents—the kind that are cultivated through Roots and Shoots practices—will likely be as important, if not more.

An always-learning environment can attract the "best" talent—people who want to continue to learn, explore, and invent the future. Talented people seek personal and professional growth and will favor organizations that provide opportunities for that growth. Retention also becomes less of an issue in an organization focused on learning: If people are developing more rapidly than they could elsewhere, why would they leave? Firms that invest in creating such learning cultures and environments—those that actively support and encourage the practices that unlock individual potential—will have an edge in attracting and developing the talent they need to meet their needs.

From practices to purpose

THE practices described in this report can help us perform better in a world of constant change. They may serve to create more interesting long-term opportunities while preserving engaging short-term activities.

However, what will truly amplify the long-term value of practices is direction. Purpose. A North Star. For a few, this purpose may be apparent from the outset, and their actions are aligned with that purpose. But for most, purpose may only be discovered through the process of deploying these practices, through the simultaneous exploration of edges and core values. Working through these cycles of speeding up and slowing down allows one to develop insights—about a shifting world and about oneself—that over time consolidate into one's purpose.

When we, at the Center for the Edge, have written about passion and purpose in the past, one consistent response from readers has been that they find the perspectives compelling, but lament that they haven't found their own passion. The framework presented here is our attempt to provide avenues to discover one's purpose and passion by actively engaging in one's own Roots and Shoots.

Don't wait for your purpose to reveal itself to get started, or have that as the goal. Start with the practices and aim to make them habits. The journey may well reveal your purpose.

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The Deloitte Center for the Edge conducts original research and develops substantive points of view for new corporate growth. The center, anchored in Silicon Valley with teams in Europe and Australia, helps senior executives make sense of and profit from emerging opportunities on the edge of business and technology. Center leaders believe that what is created on the edge of the competitive landscape—in terms of technology, geography, demographics, markets—inevitably strikes at the very heart of a business. The Center for the Edge's mission is to identify and explore emerging opportunities related to big shifts that are not yet on the senior management agenda, but ought to be. While Center leaders are focused on long-term trends and opportunities, they are equally focused on implications for near-term action, the day-to-day environment of executives.

Below the surface of current events, buried amid the latest headlines and competitive moves, executives are beginning to see the outlines of a new business landscape. Performance pressures are mounting. The old ways of doing things are generating diminishing returns. Companies are having a harder time making money—and increasingly, their very survival is challenged. Executives must learn ways not only to do their jobs differently, but also to do them better. That, in part, requires understanding the broader changes to the operating environment:

• What is really driving intensifying competitive pressures?

• What long-term opportunities are available?

• What needs to be done today to change course?

Decoding the deep structure of this economic shift will allow executives to thrive in the face of intensifying competition and growing economic pressure. The good news is that the actions needed to address short-term economic conditions are also the best long-term measures to take advantage of the opportunities these challenges create. For more information about the Center's unique perspective on these challenges, visit www.deloitte.com/centerforedge.

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