

# Putting lifelong learning on the CEO agenda

In an open letter to business leaders, a Harvard Business School professor and a learning engineer at the Chan Zuckerberg Initiative present an emphatic case to make learning a corporate priority.

*by Amy Edmondson and Bror Saxberg*

**If you are anything** like most corporate leaders we know, you say (and mean) the right things when it comes to learning, such as “Our people are our most valuable asset, and their development is a top priority.” But if you are honest with yourself, you also know that your actions often emphasize financial over human capital, and you may leave it to individuals to find the learning opportunities they need. That worked, sort of, when people spent most of their time “doing” rather than “thinking,” “creating,” or “deciding.”

But times are changing. Artificial intelligence (AI) and robotics are facilitating the automation of a growing number of “doing” tasks. Today’s AI-enabled, information-rich tools are increasingly able to handle jobs that in the past have been exclusively done by people—think tax returns, language translations, accounting, even some kinds of surgery. These shifts will produce massive disruptions to employment and hold enormous implications for you as a business leader.

Both of us are educators, with decades of experience working with businesses. We write this letter not to criticize but to make the case for why a new emphasis on lifelong learning is going to become increasingly central to *your* job: maximizing the value and impact of your organization.

We are not seers. Still, one thing is clear. In the future, more and more of your people will need to use complex cognitive skills for more and more of their time. Some are already comfortable with this; some are not. As stewards of your company's value, you need to understand how to get your people ready—not because it's a nice thing to do but because the competitive advantage of early adopters of advanced algorithms and robotics will rapidly diminish. Simply put, companies will differentiate themselves not just by having the tools but by how their people interact with those tools and make the complex decisions that they must make in the course of doing their work. The greater the use of information-rich tools, the more important the decisions are that are still made by people. That, in turn, increases the importance of continuous learning. Workers, managers, and executives need to keep up with the machines and be able to interpret their results.

### **CHALLENGES AHEAD**

You may be wondering if you can adapt to changing technology simply by finding new people who can do the new stuff. The answer is no. There is a kind of Moore's law at work, in which the capacities of these information tools are doubling every couple of years or less. You can't "fire and hire" your way to success if you have to turn over people every 9 to 18 months to bring in new skills.

There are other problems to keep in mind as well. One is that we live in a world where companies must adapt their strategies rapidly in response to competition, structural changes brought on by digitization, and counterintuitive insights revealed by advanced analytics. That means that the old split between strategy development and execution, if it ever made sense, is outmoded: organizations have to adapt continually, and therefore they have to learn *while* executing.

In that kind of world, the future of learning is not in the classroom. It's in the field—finding ways to do better while doing the work. This won't happen by chance. You need to model learning behaviors and invest in the development of learning processes and tools. You need to take an appropriately humble stand about the challenges ahead—for you as a leader and for your organization. There is simply no room for arrogance in a highly dynamic and uncertain world. You also need to create a psychologically safe environment in which people feel comfortable taking the risks that come with experimentation and practice; giving and receiving candid feedback; asking questions; and acknowledging failures. Learning must be built into every aspect of the organization.

Another inconvenient truth is that the education and training sector, historically, has not done well in terms of implementing evidence-based, iterative improvements in the learning processes and outcomes it emphasizes. Learning science does exist. It's just not always, or even often, applied in the workplace. There is very little “learning engineering.”

As a senior leader, then, you have to rethink how to continuously improve the skills of your employees beyond conventional training and education. You need to insist on experimenting with new learning methods and look for approaches that are based on good evidence. And you need to identify and support learning leaders who are deeply connected to learning science and who can make the case for implementing the right measures.

### **‘SOFT’ PRIORITIES**

When we talk about learning, the emphasis is often on “hard” skills, such as coding, analytics, and data science. While these skills will be critical, they are only part of the story. The dynamics we described at the outset, in which information-rich tools become ubiquitous and people are a differentiator, paradoxically, increase the importance of such “soft” attributes as collaboration, empathy, and meaning making.

### **Collaboration**

In most organizations, teamwork will be more important and valuable than ever. In both scientific discovery and commercial innovation, for example, the size of innovating teams has grown larger and the skills brought together are more diverse than ever. This is because, as knowledge expands, expertise both deepens and narrows—necessitating collaboration across fields to produce great results.

In a way that would have seemed far-fetched 20 years ago, building a car requires integrating cross-disciplinary expertise in artificial intelligence, computer science, advanced lighting, and materials, in addition to the classic automotive-engineering disciplines of design and manufacturing. Or consider the rescue of the Chilean miners in 2010. The miners themselves formed an extraordinary team to support their mutual survival. But they also needed the cross-disciplinary expertise of the team of above-ground rescuers who integrated expertise from geologists, engineers, physicians, and naval special forces.

Teamwork doesn't necessarily mean collaborating within teams in the classic sense of bounded groups of people working together on specific tasks.

Instead, it's often about *teaming*—communicating and collaborating with people across boundaries, such as expertise or distance, spontaneously and continuously. Your people need to have, or develop, the skills for effective teamwork.

### **Empathy**

Global marketplaces can threaten the ability to spontaneously empathize, especially when we cannot see other people's faces—for example, in geographically dispersed workforces or through remote service encounters. Genuine human connections can be made, and broken, quickly. Customers and employees alike feel deep loyalty to organizations that treat them with respect.

To some extent, empathy can be taught—through perspective-taking exercises and through quick but profound exchanges between people. For that to happen, leaders at all levels of your organization have to be engaged and model the right behavior. This can start with something as simple as asking your managers to put themselves in the shoes of others in a given situation. Offer experiences where you can succeed only by practicing empathy. Some companies encourage this by requiring managers to work on the front lines—at the retail counter or on the factory floor—before putting on the white collar.

You also should monitor feedback blogs. Praise your staff, in public, when they get things right. Observe your customers and how they interact with your company. Use design-thinking tools such as empathy maps as a starting point for conceiving new products and features and for identifying customer pain points. In an era of customization, empathy matters more because it requires putting yourself in the minds of many different kinds of customers, not just the familiar ones for whom a product or service was designed.

### **Meaning making**

Meaning making in the AI era starts with an appreciation of what machines can and cannot do. It may be possible, for example, for a machine to make certain kinds of diagnoses more accurately than a person can. But it will be up to nurses, doctors, and therapists to help patients understand the implications and manage the consequences. It's the difference between knowledge and meaning.

The search for meaning informs many kinds of decisions: it could be a work challenge overcome, a way to advance a career, a resolution to a personal issue, or matters related to health and wellness. As information-rich tools

help provide better solutions to complex situations, organizations will need to understand what matters for each person. Meaningfully connecting decisions, even those made by algorithms, to individual circumstances is likely to be the work of skilled people for a long time to come—if we prepare our organizations to think like this.

You, and your people, can all be meaning seekers and meaning makers. Tapping into this fundamental human quality is your best strategy for winning hearts and minds, within and without. And it's also good for business. People who come to work believing that what they do matters—that in some small way it contributes to making the world a better place—are more committed to their organizations, more passionate about serving customers, and more resilient in the face of challenges. Good leaders have always played this role; when they don't, people are more apt to act in ways that maximize self-interest and minimize effort. We would assert, though, that articulating the purpose of your organization (and evolving that message as technology and customer needs change) is about to become an even more crucial part of your job.

## **HARD RESULTS**

Although the importance of “soft” skills may be growing, you should think about investments in learning and development in the same way you think about any investment: What is the value? How do I know I'm getting it? How can I make it more efficient? The only way to answer questions like these is to identify how employees' decisions add value to the organization or subtract value from it. The costs and benefits of the decisions made by many high-volume, high-value, high-variability groups of employees, such as sales staff or project managers, are often unknown. It's up to you to determine what measures matter, such as close rates or error costs; then you need to communicate these priorities. For example, tracking error rates for nurses—and the decisions that lead to them—and then taking action can translate into shorter hospital visits, fewer lawsuits, and better health outcomes. Once you have decided what metrics to track, four steps should follow:

- First, find the best performers, and prepare to be amazed by how much more value they add with their decisions compared with the median performer. This sets a benchmark for the value that could be generated with the right training. (It can be large!)
- Second, analyze what these top performers decide and do. That's not easy, because much of it is unconscious. Still, it is important to learn as much as possible. On that basis, ensure that best practices are the focus of training

and development programs. One study of helicopter pilots, for example, found that the best ones had a specific, albeit unconscious, way of using their eyes during a landing. The study also found that novices could be easily taught to consciously approximate those same gaze directions—and thus reduce the rate of crashes in simulations.

- Third, with these targets in mind, insist on well-designed training, based on insights from learning science, and support high-quality evidence gathering about results. Getting a return is, after all, the point of any investment. You will want to compare the work of those who have had new training to that of others who have not and to look for material differences in value.
- Finally, commit to continuing this cycle of tracking expertise, improving training, and gathering evidence over time to make sure that you continue to capture value. Training is no longer a matter of “one and done,” if it ever was. Rapidly changing workplaces mean continuous improvement has to be the norm.

This may sound like a lot of work, but it’s going to become a competitive necessity. The rapid development of information-rich tools, together with the brisk pace of change in every facet of society, mean that the decisions and organizational roles left to people matter more than ever. You must therefore focus more, and spend more of your time, on upgrading your employees’ skills and mastering the collaboration, empathy, and meaning making that will help your organization thrive. 

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