THE FUTURE OF LEARNING:

Why CTOs must focus on VR and AI to adapt to market demand.

The speed of change today

Take a second to catch your breath—because the world is evolving at a pace that'll make your pulse race. And if you're reading this, you're part of the tech revolution that's fueling this speed. You know exactly where it's heading, and it's only getting faster.

First, let's understand the reason behind this year's super-fast pace of change...

This revolution began with the invention of the semiconductor and its use in Silicon Valley, which took its name from the silicon that creates semiconductors and continues to drive this revolution today.

I'll start with Intel's co-founder, Gordon Moore, and his early prediction at the dawn of this technological era. Moore's Law feels almost surreal, even to Moore himself. The truth is, he didn't invent a law—he simply wrote an article, number 38 in Electronics Magazine in 1965, with a modest prediction: 'With unit cost falling as the number of components per circuit rises, by 1975 economics may dictate squeezing as many as 65,000 components on a single silicon chip.'

The reason this prediction is at the core of our technological revolution is simple: the smaller the components on a microchip, the more powerful it becomes. After 60 years of doubling, the power has now reached a point where every increase brings exponential growth.

Back then, it seemed unrealistic, but now, after almost 60 years of consistent growth, it has earned the title of a 'law.

With so much information available online, people often think that Moore's Law is no longer relevant. Even Moore himself was skeptical that it could continue for much longer. By 2010, it seemed like the pace of progress was slowing down, yet it continues even today. The number of components has shrunk so much that they are nearing the size of an atom. Logically, this suggests it may stop—and it could—but we're not here to judge that. What we can say is that, up to now, progress has been exponential, and it's still happening, with predictions that it will continue for a few more years. This doesn't even take into account quantum computing, which could extend this trend of increasing computing power for many years to come.

For us, this means two things: computing power has increased exponentially for 60 years, and costs have fallen just as dramatically, enabling this technological revolution to unfold.

Before we dive into the role of the CTO and market adaptation, let's take a moment to look at the progress from 1968 to 2024. It started with transistor sizes of [20 μm](#) in 1968, and by 2022, we've reached 3 nm. Both Samsung and TSMC shipped 3 nm processors in 2022, and they have plans to work on even smaller nodes by 2025 and 2027.

To put it in simple terms, a semiconductor node size in 1968 was 0.02mm, and by 2022, it's just 0.0000003mm—approaching the size of an atom. That's why many believe this progress might eventually hit a limit.

But whether this progress eventually stops or not isn't the key point for our discussion. What matters is that the continuous increase in computing power has accelerated the speed of progress and change, affecting every aspect of our lives, as you can clearly see. The most important impact for us is how this influences our jobs and well-being, creating a huge demand for rapid learning and adaptation.

This is made clear in the Future of Jobs Report by the World Economic Forum, which we will explore in the next section of this paper.

Soft and power skills are the most important skill now and in the future

It seems that, after the Covid, people are feeling more disconnected from their work. Initially, we thought the covid and isolation were the primary reasons, but in truth, they only amplified the ongoing effects of rapid technological progress. We now see more people feeling disengaged from their jobs, uncertain about which skills to develop for the future or where to focus now. Many have spent years mastering a skill or programming language that is no longer relevant. Companies adopt one system, only to find they need to reconfigure their entire workforce for a newer, better, and more efficient system within just a few years—often the same amount of time it took to adapt to the original one.

Take eCommerce as an example: when WordPress (founded 2003) or Magento (founded 2008) first emerged, it seemed like no other platform could compete. Agencies invested heavily in these CMS platforms, channeling all their training and resources into building highly capable teams. Then Shopify (founded 2009) entered the scene, making changes to simplify adoption for sellers. Now, many customers don't even care about a company's experience with Magento.

In the [WEF's 2023 Future of Jobs report](#), the main theme was clear: "Skilling, upskilling, and reskilling are vital for workforce transformation, which is ultimately essential for business transformation in this age of AI." The problem is that neither our society nor our biological makeup is built for constant upskilling and reskilling. Our educational system is not designed for this need. We aren't taught how to learn or how to reconfigure ourselves for new environments—there simply wasn't a need for it until now.

People are feeling lost and unmotivated. But do you know who will be the first to find solutions to this problem? CTOs and other C-level executives who need to get things done. They aren't

concerned with how fast technology is progressing—they are making it happen. They don't worry about the cost of reskilling or upskilling employees—they'll do whatever it takes. And that's why we've created this paper: because now, technology also has a solution for us.

Before diving into that, let's better understand the current job market situation. we'll focus on the Future of Jobs report from the WEF, but nearly every report we've read on this topic reaches the same conclusion.

One of the key takeaways from the report is that, while technical proficiency remains crucial, "soft skills"—or what we prefer to call "power skills"—are now a defining factor in the career paths of tech professionals. Power skills such as communication, adaptability, teamwork, and problem-solving enable IT professionals to tackle the increasingly complex, cross-functional challenges that arise as they take on leadership roles. These skills are universal and apply to virtually all types of projects and roles, making them both practical and highly transferable.

The table from the Future of Jobs report highlights that the core skills for 2023 are predominantly power skills.

The highest priority for skills training between 2023 and 2027 is analytical thinking, which is expected to account for 10% of training initiatives, on average. The second priority in workforce development is promoting creative thinking, which will make up 8% of upskilling efforts. With that in mind, let's set this aside for now and also focus on the skills related to new technologies.

AI and new skills in place

According to the *WEF Job Report*, **66% of IT decision-makers reported facing skills gaps on their teams in 2023**—largely due to the rapid pace of change in tech. And this pace is unlikely to slow down. Providing opportunities for reskilling and upskilling, alongside fostering a culture of continuous learning, is key to addressing today's gaps and preparing for future challenges. That's why 45% of IT decision-makers plan to close these gaps by training their existing teams.

It's not like the old days when universities fully prepared someone for the skills they'd need. Now, the needs are unique, and technology is being invented as we work. There's no established training or experience available beforehand. While this doesn't apply to all skills, it certainly impacts many of them. Just two years ago, the world saw ChatGPT for the first time, and it became clear that most of us needed to learn how to use it to improve our performance at work. Based on our personal experience, CTOs and CEOs aren't waiting for universities to train people for ChatGPT or the technologies that will follow.

For C-level executives, it's now obvious that reskilling and upskilling their teams must be a top priority to stay ahead in this fast-changing world driven by increasing computing power.

Learning Is No Longer Separate from Daily Work

The WEF Job Report highlights that employers estimate **44% of workers' skills will be disrupted in the next five years.** Six in 10 workers will require training by 2027, yet only half of workers currently have access to adequate training opportunities.

In almost every scenario, the people you're working with today will need to be constantly trained or acquire new skills and adjust their existing ones. This complicates things because we've been used to having a Human Resources department create an annual plan for essential skills, with minimal interaction during onboarding, and that was it.

But that approach no longer works. HR departments can't fully grasp the rapid changes happening in every sector. If we rely on the traditional bureaucratic landscape of HR to handle this fast-paced need for training, we'll slow the process down and lose competitiveness, especially to new companies that don't even have HR departments. Now, it's the responsibility of C-level executives to understand the daily need for training. However, this task is so complex that it cannot be managed without tools equipped with far greater computing power than the human brain.

The figure below shows the skills projected to rise in the future, based on the WEF Future of Jobs Report.

Learning is the need but not the starting point.

According to the WEF Job Report, "**When asked about factors that would compel them to change employers, the largest group (43%) cited a lack of growth and development opportunities**. Similarly, the number one reason for changing job roles within the same organization is also a lack of growth and development (25%)." This highlights that it's not just HR's responsibility to think about employee development—every manager with a team must have the right skills and tools to address this.

As C-level executives, we understand that reskilling and upskilling are essential, but that's not necessarily what our people care about. If we don't dig deeper into what truly motivates them, our need for workforce development becomes nothing more than a source of frustration.

It's simple: most people don't reskill or upskill themselves just to meet market needs, especially in a fast-paced environment. They are driven by unique motivational factors, and if we fail to understand those factors, the result will be the same chaotic situation we see happening around the world today.

This is where both the problem and the solution lie. Any fixed strategy in a company won't work for everyone, nor will it work for long. We can increase compensation, force changes, or offer different alternatives, but the truth is, most of these approaches will fail for the majority. This is because each of us is a unique human being—no one is the same, and no one ever has been or will be. With this uniqueness at our core, our approach to workforce development can't be one-size-fits-all; it must be tailored to each individual.

Before we explore the solution, let's understand why this is even more relevant to CTOs.

CTOs interaction with their workforce

C-level executives are constantly interacting with their teams, helping them grow and stay motivated. However, the CTO's role is on a different level. CTOs work with some of the most unique individuals in the workforce, and they stand at the forefront of this computing power revolution. High-tech professionals often possess a distinctive combination of introversion,

creativity, and deep intellectual curiosity. They are usually more comfortable in the world of code or science than in social settings, and they might be labeled as 'geeks' due to their intense focus on their work. Their personalities are distinct, driven by a love for problem-solving, and their unconventional thinking and passion for tech might come off as quirky or eccentric. Despite these differences, these traits are exactly what fuel their innovation, enabling them to create groundbreaking solutions that shape the future. This makes them some of the most critical people for a company's success—often more so than the marketing and sales or PR people who get public attention.

There's another key point to note about high-tech professionals that CTOs face more than other C-level executives. These individuals are usually tasked with solving complex problems daily, requiring creativity rather than traditional motivators like fear or financial incentives. In human society, C-level leaders (or their predecessors) have often relied on power, fear, dominance, and money to influence people. But this approach is becoming increasingly ineffective in the tech world, where such motivational factors can't solve the problems at hand. Tech professionals need to genuinely love what they do and the challenges they're tackling for their creativity to work its magic. This is why the dominant, authoritarian CTO is becoming less common.

The modern CTO's role goes beyond merely managing their team—they must engage, motivate, and, most importantly, understand their people to align them with the product vision. This is no easy task, even for a skilled psychologist, let alone a tech expert who's become a CTO. In larger companies, this responsibility is often delegated to HR, but HR departments frequently struggle to handle such challenges. In fact, it's almost impossible for any human alone to fully manage these complexities. So, how can a CTO—especially when HR isn't equipped to help—solve this massive challenge?

What is Needed for a C-Suite to Succeed

In today's fast-paced business world, C-suite success requires more than just financial or operational expertise. Executives need a balance of hard and soft skills to lead effectively. Social skills like self-awareness, active listening, and relationship management have become crucial for fostering innovation, trust, and collaboration. As technology automates routine tasks, leaders must focus on human-centered leadership, guiding teams through complex, judgment-based work. To support this, companies must prioritize the development of soft skills, helping future leaders communicate, inspire, and adapt in real-time.

Emotional Intelligence in Leadership

Emotional intelligence (EQ) is becoming one of the most critical leadership skills in the C-suite. High-EQ leaders are better equipped to manage their own emotions, empathize with others, and navigate the complexities of human behavior in high-stakes situations. For C-level executives, emotional intelligence fosters stronger relationships with employees, stakeholders, and customers, creating an environment of trust and collaboration.

A leader with high emotional intelligence can better manage conflicts, understand team dynamics, and inspire their workforce, ultimately leading to higher productivity and a more engaged workforce. By practicing empathy, self-regulation, and active listening, leaders can connect with their teams on a deeper level, making them more adaptable and responsive to

change. Additionally, emotional intelligence helps in decision-making, allowing executives to assess situations with a balanced perspective, considering both logic and human emotion.

Here are some key statistics on emotional intelligence (EQ) in leadership:

1. **90% of top performers have high emotional intelligence**: Studies show that the majority of high-performing leaders possess high levels of EQ, enabling them to manage their own emotions and those of others effectively .
2. **EQ accounts for 58% of job performance**: Emotional intelligence is a key predictor of success, contributing significantly to leadership performance and influencing essential competencies such as communication and decision-making .
3. **Leaders with high EQ contribute to a 20% improvement in team performance**: Research shows that leaders with strong emotional intelligence foster a more collaborative and positive work environment, leading to better team outcomes .
4. **Companies with EQ-trained employees report a 34% improvement in productivity**: Training leaders and employees in emotional intelligence has been shown to boost overall organizational efficiency and productivity .
5. **Only 36% of people can accurately identify their own emotions**: This highlights a gap in emotional awareness, which can affect leadership effectiveness, reinforcing the need for emotional intelligence development.

Leveraging Technology for Strategic Advantage

Technology has become the foundation for business success, and for C-suite executives, leveraging it strategically is crucial. The modern executive must not only understand emerging technologies like AI, machine learning, and automation but also know how to apply them to achieve key business goals. This involves creating a forward-thinking technology strategy that aligns with the company's vision, ensuring that tech investments drive operational efficiency, innovation, and customer experience.

By proactively adopting and integrating technologies, C-level leaders can create significant competitive advantages, such as increased agility, optimized processes, and deeper customer insights. It's not just about adopting the latest technology but about using it to solve specific business problems and stay ahead of market disruptions. To maximize these opportunities, executives should foster cross-functional collaboration between tech and business teams, creating a culture of innovation where technology is seen as a business enabler.

The technology that now provide the solution

Fortunately, computing power has advanced to the point where technology can help manage this situation. Even though the problem seems complex, at its core, it's just about numbers and calculations.

Understanding a human being isn't inherently difficult—it just requires vast amounts of data and memory. Typically, we categorize information so our brains can make sense of things. In recruitment or training, we categorize experience, education, skills, and other factors we find on a CV or in an interview. But the truth is, within these broad categories lie countless deeper divisions and factors that influence a person's behavior. This level of complexity is beyond what the human

brain can fully comprehend—but not beyond the capabilities of a massive data center paired with AI utilizing deep learning.

We now have a technology available in the form of Large Language Models (LLMs) or Large Objects Models (LOMs) like Ray Kurzweil puts it, which can break down human categorization into millions of subcategories—or more—to understand human behavior. In the near future, LLMs and LOMs won't just predict the next word in a sentence, but also human behavior. And with this tool in hand, a CTO will find it much easier to predict and understand their team's behavior, allowing them to make the right decisions. Likewise, the team will better understand the CTO's behavior, leading to clearer communication and effort alignment.

Currently, using AI isn't very practical on our small phone screens because people aren't engaging with it enough to provide the necessary data for it to truly understand them. But even this is set to change. Augmented Reality (AR) and Virtual Reality (VR) glasses now allow us to immerse ourselves in any software or game more deeply than ever before, eliminating the need for a screen within our reality. For the first time, we can step inside the screen and make that content our primary focus. This technology will revolutionize how we interact with computers and usher in a new phase of immersion with technology.

The only missing piece now is the right product—one that not only collects user data but fully engages users in the process, revolutionizing how we interact with AI and data centers. This can't be done by products that merely benefit from user data; it must involve a completely new approach that allows users to fully immerse themselves in the program. This is exactly what we are working on now.

By immersing ourselves in a program, we allow it to deeply understand our way of thinking and our behavior. This power is immense, and yes, it can be a little scary, as it feels like a whole new level of technology. But in our view, the outcome will be positive. After the initial phase of fear, scams, and misuse—common with any new technology—we believe humanity will emerge stronger, and we will experience enlightenment through this product.

For the first time, we have the technology to truly understand ourselves, and that's why we've put everything else aside to focus on this challenge. Our goal is to ensure this technology is used to help both ourselves and every user achieve enlightenment, follow our dreams, and tap into our true motivations.

How this connects with the CTO

My goal is to innovate meritocracy for the digital age. Right now, there's a lot of politics in the world, dividing us and undermining our true potential. Politics, at its core, isn't truth—it's a point of view imposed or sold to others, allowing large groups of people to coexist in peace and harmony. In the past, this was necessary given our world and the state of technology. But now, with the pace of change, those in power cannot adapt quickly enough through politics, leaving us in a world where more and more people feel like we're living in a one big lie. We've reached a point where it's hard to tell what the truth is anymore.

This is because society has progressed, and we need to change in order to adapt. The progress we've made means that we don't need politics in the same way anymore. With computers and

clear data, we have the tools to understand the world and ourselves more accurately, allowing us to live by the truth much more easily.

Imagine a CTO who knows their team and is known by them, working together with unprecedented computing power. What this team could achieve would seem like sci-fi today, just as many current technologies once did—but it's clear that these innovations will shape our future.

Yet, there is still one challenge to solve. A team needs to build this tool, and for that, three roles are crucial: the CEO, COO, CPO and CTO. We've already started working on this problem and we have the team, but we're in search of a CTO to complete the team and take our product to the next phase.

Can you see our vision? If you're ready to help shape this new world and build a true digital meritocracy, we would love to have a chat with you.

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