Using Exponential Technology to Prepare the Workforce of Tomorrow

The combined impact of emerging technologies, automation, and a rapidly-changing global economy has drastically increased the demands on today’s labor market and workforce. Many companies cannot efficiently collect data showing the macro and micro trends causing these changes, so it has been difficult to cultivate a relevant and trained workforce that is prepared for the jobs of tomorrow.

**The Challenge**

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**The Solution**

SkyHive uses artificial intelligence (AI), specifically machine learning, to drive workforce transformation by generating deep and real-time insights into the labor market. By leveraging these insights to upskill workers and create unbiased skill-based job matches, SkyHive is striving to grow a strong and equally represented workforce that’s prepared for the future.

**Company**: SkyHive  
**Founded**: 2017  
**Industry**: Artificial Intelligence

**Results, Outcomes, Achievements:**

- Cited by Forbes as a key startup to watch at the 2019 Startup Grind Global Conference.
- One of 15 companies worldwide selected to participate in the Unreasonable Future program, an invitation-only growth stage accelerator for emerging future of work technologies.
- SkyHive technology is helping the Canadian Armed Forces increase recruitment of women by 1% year-over-year from 2019 until 2025.
- Formed 9 partnerships helping underrepresented groups to access career pathways and employment opportunities.
The Face of Work Is Changing Fast—
How Do We Prepare?

Today’s global economy is evolving more rapidly than ever before and putting unprecedented pressures on employers and job seekers alike to prepare for the jobs of tomorrow—and fast.

How sizable are these oncoming changes to the future of work? According to a McKinsey study examining workforce changes, they are colossal. In fact, the report estimates that by 2030, 375 million workers may need to change their occupation and that by 2025, digital work could contribute $2.7 trillion to global GDP.

How then, do we proactively prepare from the demands of tomorrow’s labor market, while also fostering a more equitable, prosperous, and diverse workforce today?

This has been the driving question for Sean Hinton, Founder and CEO of SkyHive, an SU Portfolio Company with the mission to combat unemployment and underemployment through the use of exponential technologies.

For Sean Hinton, however, founding SkyHive has not only proved to be life-changing for the thousands of platform users today. His own journey transitioning into the social impact space has unfolded a personal transformation, as well.

Taking The Red Pill: Choosing A Career With Purpose and Impact

Before launching SkyHive, Sean was the President of WhiteWater West Industries, the world’s largest developer of water parks, well known for designing parks such as Disney, Six Flags, Carnival Cruise Lines, and beyond. Prior to this role, he had spent nearly a decade as a consultant to the Canadian government and to technical training organizations, which is where he first began working in the field of labor mobility.

Even before transitioning into the world of social impact, Sean recalls his initial curiosity with workforce development. “Before creating SkyHive, I was the CEO of a large 250 million dollar company. We had 500 employees and 23 global offices. Back then I understood the individual job functions that I had hired people to perform, but I was still struggling to truly understand what my workforce was actually capable of:”

In early 2016, and without any intention of making drastic career changes, Sean attended a Young Presidents Organization (YPO) conference in Dubai. Shortly thereafter, Sean’s entire professional vision was turned upside down.

“It was 10am and a group of Syrian women got on stage to speak on a panel. These women had all escaped Syria and were living in a refugee camp in Lebanon. They spoke to our group of 2,500 CEOs about the atrocities of the treatment that women endured during the Syrian civil war, and in listening to this, that was where my purpose formed. It was instantaneous. I knew immediately that I needed to take my energy, experience, and enthusiasm and create something that improves the livelihoods of individuals and communities. That was the day that I became a social entrepreneur, with the mission of tackling global poverty and social inequality through the use of exponential technologies.”
Merging An Impactful Purpose With The Power of Exponential Technology

Sean left the conference infused with this new sense of purpose for redirecting his career. Now, his unanswered question was how to take his previous experience and redirect it in an impactful way.

In the months that followed, Sean attended a Singularity University Executive Education Program in Vancouver, Canada, where SU’s founding Executive Director Salim Ismail gave his famous talk on exponential technology to a group of CEOs. Suddenly, things began to click.

“This was the tipping point for me,” says Sean. “From Salim, I learned about emerging technologies, which up until that point hadn’t crossed my radar. This was when I really began to formulate what I wanted to do. When I left that event I knew it was critical to learn more about these technologies, and I knew they could help me with the problem I was trying to solve. After the event, I read Salim’s book Exponential Organizations and began absorbing all of Singularity University’s information and thinking. I began understanding the computing power available to us today, which hadn’t been available before at a cost that actually enabled innovation.”

Having his mind opened to the power of exponential technologies, Sean began to form the initial ideas for SkyHive and how he could leverage AI to help people gain insight into their unique skills and match them with emerging opportunities in the labor market.

“Engaging with SU enabled me to do a few critical things,” Sean continues. “Salim introduced me to the red pill, as I like to call it, and I took it. The red pill here is the view of what an exponential world looks like. This viewpoint shifted me and caused me to begin looking at the world differently, both as an individual and as a leader. I immediately thought about how the current company I was running could be disrupted and I started asking new important questions. I had always done SWOT analyses and typical MBA exercises, but I hadn’t been looking at the 10x factor. It wasn’t until I found Singularity University that I started looking at the hot knife going through butter, which is really what exponential technology is today.”

It was 2016 at the time, and cloud-based AI was making its way onto the main stage. For Sean, it was perfect timing and he saw the opportunity to use cloud-based AI to generate a new breed of labor market insights that could help others recognize all that they were capable of and how to realize their career aspirations.

With this in mind, Sean knew it was time for him to take his entrepreneurial leap of faith. He dove into building SkyHive full force, taking off his “golden handcuffs” and committing to building a new company grounded in his purpose of creating a more empowered and equitable workforce.

“Creating a startup that uses emerging technology is a scary thing because you’re going into an abyss of the unknown,” notes Sean. “Not only are you building a technology, but you’re building a leading-edge technology that’s completely untested. It’s uncomfortable and against the grain. That said, today I can say that getting up and living with my purpose is amazingly gratifying. I had a great career in my past life and I didn’t run away from that, I ran to this (SkyHive), and today it’s extremely fulfilling to be working in the impact space.”

Next up in his journey with Singularity University, Sean enrolled in SU’s debut 9-week Exponential Foundations online course in 2017—an offering built for entrepreneurs and founders like himself to take their big visions and reverse-engineer them in order to create viable companies ready to launch today.

“During the Exponential Foundations Program, SU was able to help me take my big idea—that 20-year and 50-year vision—and then work it backwards so that I could build a company that made sense today, yet which could continue scaling towards an even bigger vision in the future. I think a lot of programs miss this. There are many programs that give you the red pill and then leave you to propel forward alone.”

Armed with a viable business plan, Sean launched SkyHive in 2017 following the Exponential Foundations courses. Prior to the conclusion of the Exponential Foundations Program, Adam Hofmann of SU contacted Sean, inviting him to the 2017 SU Global Summit to explore ways that Sean could continue his journey with SU. It was there that Sean met Mikhail Holst, and SkyHive was on a path to join the SU Ventures Portfolio.
SkyHive: Using Exponential Technology for Labor Market Development and Workforce Transformation

Job titles have remained the same for decades, yet the technical skills, soft skills, requirements, methodologies and technologies required to perform these jobs are constantly changing. The faster a company or community can learn about these changes, the faster it can respond with training and reskilling. At its core, SkyHive digitizes Sean’s discovery, quantum labor analysis. This is the application of artificial intelligence to analyze a workforce or labor market at its most granular level. Think of this analysis as a stock ticker of activity in a job or set of jobs. AI allows us to see these changes occur in real-time and realize exponential efficiency in workforce planning and reskilling.

Today, SkyHive has two faces to its platform: one serving job seekers, and the other serving large organizations through its advanced enterprise technology.

The platform leverages a competency-based job matching methodology that applies deep learning and machine learning to improve efficiencies in the acquisition, advancement, and retention of human capital. By doing this, SkyHive has revamped how employers can find and retain talent, as well as how job seekers are matched with relevant opportunities.

By connecting job seekers with opportunities based on skill-matching, the volume of jobs that a potential candidate can qualify for increases exponentially. This, in turn, also benefits employers by offering them a larger, and more qualified, group of applicants.

Unbiased Skill-Based Job Matching

The skill-based matching approach that SkyHive employs is not only beneficial to job-seekers and employers, but it is key to empowering disadvantaged groups with employment opportunities by removing pre-screening human biases from the hiring equation.

Rather than relying on human decision-making to determine the soft and technical skills of a job-seeker, SkyHive’s skill-matching platform uses machine learning to determine candidate qualifications, which leads to unbiased candidate matching.

Sean says, “With a lot of recent conversation around biases in predictive AI, it’s important to note that SkyHive’s predictive AI for skill-based matching is creating the opposite outcome by leading to unbiased matching in jobs. This has been validated through several research studies that have shown that purely skill-based human capital allocation is completely free of bias because it only assesses the skills that the candidate has. SkyHive’s platform is not examining candidates’ job titles, where candidates are from, or the names of the schools they attended.”

In fact, SkyHive’s technology is so effective at eliminating biases that, within the platform, 56 percent of all top candidate matches are with women—a huge number for the industry. As a B Corporation, SkyHive measures success by considering profitability and impact creation equally. Forming the company this way was key for Sean, and the focus on impact is only expanding as the company grows.

“One of the most difficult exercises while building SkyHive was to create a company that could be both wildly successful from a profit and loss perspective, and could drive big impact in tandem,” notes Sean. “Our most profitable projects are those that we offer through SkyHive’s advanced enterprise technology for large multinational and governmental organizations, but we’re also equally focused on our work with at-risk groups in the labor market.”

Specifically, SkyHive uses its platform to help underrepresented and at-risk populations of the workforce find employment, such as women, youth, people with physical disabilities, veterans, immigrants, refugees, and indigenous communities.
For Sean, working with at-risk populations in the workforce is critical. Though unemployment rates in the U.S. are at a record low, Sean points out that the labor statistic that is frequently neglected is the relatively high unemployment rate within specific at-risk and underrepresented populations.

“If we were to take a snapshot and look at wage rates today, we would see a widening gap between the rich and the poor. 2019 brought record low unemployment; however, that’s only part of the story. Diving deeper into that data, you would see something very different within at-risk groups. For example, newcomers to the country faced a 17% unemployment rate, while youth saw a 13% unemployment rate.

Taking it a step further, in the Western world, 45% of youth jobs are at salaries below the poverty line. Looking at the data in this way, you can see that the existing workforce system is not working.”

To support these populations of the workforce, SkyHive has numerous partnerships with community organizations. One such partner is the LEAP Foundation in Florida, which focuses on transitioning women back into the workforce after incarceration. SkyHive also has a partnership with the Boys and Girls Clubs for a project to help young people understand the needed skills of the future and how to acquire them. “We are always looking at how to apply our technology to support increasing the livelihood of these groups,” Sean says.

SkyHive’s impactful work spans into the employer solutions side of the platform as well. One of the company’s most meaningful projects is a long-term initiative with the Canadian Armed Forces to increase the recruitment of women.

“We also successfully completed a joint research project with the University of Victoria, where we partnered together on a national research council grant,” notes Sean. The study was run by the University of Victoria, and it applied our deep learning technology to look at the key drivers of employment for women and then analyzed how to use these findings to increase women’s employment.”

Using SkyHive’s research and technology, the Canadian Armed Forces is moving to increase the recruitment of women by 1% year-over-year, from 2019 until 2025, and is now commercializing the solution.
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When it comes to SkyHive’s grand vision for the future, Sean is focused on supporting the estimated 9.2 billion people who are forecasted to become connected to the internet by 2025—a huge increase compared to today’s 4 billion internet users.

Currently, the majority of the world’s population is constrained by job opportunities that are available in their local surroundings, such as positions in retail, local services, and tourism industries. But in the future, many of these individuals will be able to be employed digitally. SkyHive’s long-term aim is to help these groups become digitally employed and empowered.

“Many people today are constrained by not having a growing physical labor market where they live,” Sean notes. “But increasingly, there is an exponentially growing digital labor market that is becoming available and is only going to expand. Today, we have a digital labor market that is valued at 160 billion dollars in economic activity annually, but by 2025 with the increase in connectivity, it is forecasted to generate 2.6 trillion dollars in economic activity annually. Because of this, we at SkyHive believe there is the opportunity to provide populations of people lacking job opportunities with connection to digital learning and digital literacy, and in doing so, provide access to opportunities in digital labor markets. It is unprecedented and incredible.”

In the next five years, SkyHive is committed to working with these underserved populations to create new pathways to employment through enhanced digital literacy, helping users understand their relevant skills in the labor market, and matching them with opportunities that can sustainably increase their own prosperity and quality of life.

SkyHive’s Vision For Future Impact

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Sean Hinton
Founder & CEO of SkyHive
Reverse-Engineering
A Moonshot Vision

- Sean Hinton Founder & CEO of SkyHive

“Singularity University has a very unique strength in how it supports entrepreneurs with very early-stage ideation, and then helps bring that ideation to a working prototype. This is different than the majority of incubators, accelerators, and venture capital firms, which mainly focus on companies that already have working prototypes or have already been receiving traction. For me, this early-stage focus helped me considerably with the formation of SkyHive.

There are a lot of programs out there that give you the red pill, like I talked about earlier, and introduce you to the idea of creating grand visions and impact. The problem is that many of these programs then leave you to propel forward alone. It's like they say, 'Okay, now go off alone and mine asteroids for fuel for deep space travel.' They don't actually say, 'Well, by the way, it's going to take you 15 years to get there, and you need to have a viable business model today.'

In many of these other programs, I found a disconnect between exponential thinking and the pragmatic reality of building a company. For me, the Exponential Foundations Online Courses series did a great job of solving this disconnect by offering me different models and frameworks that helped me create a business plan that made sense today. Beyond this, the relationship I built with SU during this time was also what got my foot planted in Silicon Valley. Since then, I’ve been able to build out my network in Silicon Valley, and it was this initial introduction into the Valley through SU that made a large impact.

Now, after three years of being involved with SU, it's both interesting and rewarding to see how my engagement with the company is shifting. I started my experience with SU by being in the audience—taking the red pill—and now I’ve been asked to become SU Faculty and to speak at the 2019 Global Summit about the future of work, which means that I’m having the opportunity to give back to the community by offering the same red pill that changed my life to others. It’s really exciting. It feels like my journey at SU has been able to come full circle, and it’s also my way of being able to give back to the SU community that got me started in the first place.”
About Singularity University

Singularity University (SU) is a global learning and innovation community using exponential technologies to tackle the world’s biggest challenges and build a better future for all. SU’s collaborative platform empowers individuals and organizations across the globe to learn, connect, and innovate breakthrough solutions using accelerating technologies like artificial intelligence, robotics, and digital biology. A certified benefit corporation headquartered in Silicon Valley, SU was founded at NASA Research Park in 2008 by renowned innovators Ray Kurzweil and Dr. Peter H. Diamandis with program funding from leading organizations including Google, Deloitte, and UNICEF. To learn more, visit SU.org, read the SU Blog, join us on Facebook, follow us on Twitter @SingularityU, and download the SU App.