

AT RISK OF GREATNESS

REIMAGINING YOUTH OUTCOMES
THROUGH THE INTERSECTION
OF ART AND TECHNOLOGY

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*Reimagining Youth Outcomes Through the Intersection of Art and
Technology*

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ALTERNATIVE PATHS TO COLLEGE

Please jot down a few questions
Even better if you post them on www.atriskofgreatness.org



Now I'm going to ask you a question: What if
you combine the following statements?

“One of the most important things questioning does is to
enable people to think and act in the face of uncertainty.”

with

“You can't control everything that happens to you, but you
can control the amount of effort you put into things.”

We all have heard that time is the great equalizer of life because we each have twenty-four hours in a day—no more, no less, regardless of socio-economic status, race, religion, sexual orientation, geographic location, or education level. And I agree. The difference lies in what each of us chooses to do with our own time. Like other assets, time can be invested, wasted, or stolen. Unlike some other resources, time is non-renewable; that is, once it's gone, then it's gone forever. We cannot turn back time.

Any time that we spend on education is definitely an investment that yields a return. The return varies greatly depending on a multitude of factors, not unlike investments in real estate, for example. Most of us believe that unless we possess an extraordinary skill in sports, arts, or entrepreneurship, investing time, energy, and money in furthering our education, and that of our children, will yield the best returns, particularly when taken all the way to a college degree or beyond college into graduate education. I now think differently, and I'm completely against the idea that a college education separates "winners" from "losers."

In this twenty-first century, the advancements in technology, automation, and artificial intelligence are making it abundantly clear that any repetitive task is bound to disappear, and fast. Some experts estimate that up to 85 percent of the jobs that will exist in 2030 have yet to be invented.⁵⁶ And to thrive, individuals will have to successfully perform non-routine tasks that require social intelligence, complex critical

56 Daniel Tencer, "85% of Jobs That Will Exist in 2030 Haven't Been Invented Yet: Dell," *Huffington Post*, July 14th, 2017.

thinking, and creative problem solving, all key success factors when competing with machines.

The flip side of the same advances of technology have significantly lowered the barriers to access knowledge, knowledge that in the past was only accessible through a college education. And the shift in the education field and its disconnection with the employment structures result in a knowledge economy where another equalizer has surfaced: Intellectual curiosity! The importance of asking the right questions has risen and will only continue to increase.

Ian Leslie, author of *Curious: The Desire to Know and Why Your Future Depends on It*, said in his “Why We Must Continue to Learn and be Curious” lecture: “We’re programmed to be curious. We’re born with a very powerful instinct that there is stuff we don’t know. And we’re also born with that instinct that other people are stores of knowledge. Little children are like investigative reporters pumping their sources for knowledge. Researcher Michel Yunard recorded the conversations that families have at home and discovered that between the ages of three and five, children asked forty thousand questions on average. The questions that they asked were specifically explanatory: How and why. The evolutionary reason for this is that we’re cultural animals. The way we survive is by becoming part of a cultural vehicle. We realize that we need to learn if we’re going to survive. We need to learn a lot, so we ask a lot of questions.”⁵⁷

57 RSA (*Royal Society for the Encouragement of Arts, Manufactures and Commerce*), “Ian Leslie on Why We Must Continue to Learn and be Curious,” June 18, 2014, video, 19:7.

Curiosity and questions go hand in hand. It is important, however, that the questions we ask are the right ones.

Leslie goes on to say, “Diverse curiosity is the hunger for the new and the novel; it’s what makes you click on the flashing link. It’s important because it takes us off in new directions. By itself, it can become rather superficial and futile. Epistemic curiosity is what happens when diverse curiosity grows up. When we combine diverse curiosity with effort, self-discipline, and focus, it becomes deeper and more enduring. It’s the life-long quest for knowledge, for learning. The desire not just to find answers, but to explore new questions.”⁵⁸

In the interest of exploring new questions, the Opportunity Pathways Background Paper from Strada Education Network, a starting framework to reimagine pathways between education and employment, indicates, “Policymakers, philanthropists, and practitioners keep trying to transform American performance on metrics we all agree matter: closing the achievement gap, raising college readiness, expanding college access, and boosting completion. And those measures do matter. But increasingly, those deeply involved in the work of education reform are beginning to ask if we are solving for particular pain points in a disjointed system, rather than focusing efforts on the ultimate goal: creating pathways for economic mobility and life stability for individual Americans.”⁵⁹

58 *RSA (Royal Society for the Encouragement of Arts, Manufactures and Commerce)*, “Ian Leslie on Why We Must Continue to Learn and be Curious,” June 18, 2014, video, 19:7.

59 “Opportunity Pathways Background Paper,” Strada Education Network, accessed October 15, 2020.

I briefly served with Amy Dunham on the board of a leading adult mentoring organization based in Indianapolis called Trusted Mentors. I spoke with Mrs. Dunham in February 2020, at which time she was the SVP of Marketing and Communications at Strada Education Network. At one point in our conversation she stated: “We’ve interviewed 350,000 Americans about their experience with postsecondary education, and one of the things we’ve asked is what would they have changed about what they studied and what they did. On the advising aspect of their experience—which is key to their sense of the value of their education—one of the things that comes across is: The advice they want most is from employers on what should they be doing to make themselves more attractive for the workforce. But it’s the advice to which they have the least access. If the system were more consumer-centric, the paths between education and employment would be many. I think of it in terms of a map of the backcountry of a mountain: You can get from here to there in a lot of different ways. There need to be more options for people to get the education and skills training they need to build meaningful careers, because today’s system simply leaves far too many Americans behind.”

The system is changing, and in the past decade, there has been a big push for STEM education at all levels as a way to meet the current and future demands of our knowledge economy. In many instances, it is combined with social and emotional learning (SEL). I like Mrs. Dunham’s idea of a map of the backcountry road of a mountain and have attempted to sketch it in the following pages.

The intent isn't to create a market analysis of all programs in North America or beyond. It is to provide input for *you* to generate the questions. Each listed program presents a valid path with advantages and prepares young adults to be productive for a job, and in some cases, a career. As usual, there are always tradeoffs. I have grouped them under four broad categories:

- Technical training or apprenticeship programs while in high school, such as the Gilbreath-Reed Career and Technical Center in Garland, Texas. In Mexico, the Job Training Institutes from multiple states (ICAT for the Spanish acronym) coordinated as decentralized entities by an organization under the Ministry of Education.
- Short duration technology training such as General Assembly, Kenzie Academy, Flatiron School, Holberton School, and Hack Reactor in the US. Techbridge in Mexico.
- Corporations training young adults, such as Cloudfactory or Samasource, which cut across national boundaries.
- Programs squarely aimed at reengaging young adults, such as NXT Level and Restore Education in San Antonio. In Mexico, the “Jóvenes Construyendo el Futuro” nationwide program and platform.

The next chapter explores in detail the intersection of arts and technology as an empowering alternative. To close this section, here's the story of D, as I agreed to call him, since he wanted to preserve his anonymity.

D shared with me that he turned very rebellious and even reckless as a preteen. As a teenager, he didn't do much better

because he continued challenging authority, cursing teachers, started smoking weed, and his performance at school decreased to the point that he had to drop out during his sophomore year, a “typical” case of a disengaged young adult. He was a heavy user of social media applications like Instagram, Snapchat, and Facebook, which he uses for entertainment. He tells me that he also uses LinkedIn. “LinkedIn?” I ask, thinking I hadn’t heard him quite right. He explained to me that his use of the more “professional” application was due to his work experience. He works as a cashier. Making a lot of money is exciting for him, and he figures connecting to others and networking are necessary for him to achieve his goal.

His work as a cashier, which he started with almost no training, frequently exposed him to rude customers. He would wear his emotions on his sleeve and the clients could tell by the look on his face and tone of voice. It wasn’t easy for him to control his anger, and sometimes he had to take a break and go to the restroom to breathe and calm down as advised by his coworkers, who would encourage him to not suppress his emotions while balancing it to keep a smile toward clients. He credits that difficult and conscious effort of practicing anger management with him learning to control his anger and maturing over time.

I ask D whether he has any role models, and I can hear his excitement on the other end of the telephone line when very quickly and without hesitation, he replies: “My dad. We don’t live together because he has to frequently relocate for work within the US and Mexico, where we have family. My brother and I used to travel in the summer or on holidays to

visit him. We particularly enjoy visiting museums with him, which goes well with my interest in history. Actually, at the end of last year, we attended a ballet for the first time, *The Nutcracker*. I really liked it!”

D’s story shows how young adults need more quality physical interaction with friends and family. Building trust is critical for effective two-way communication, and as illustrated by D’s story, quality trumps quantity when it comes to spending more time “together.”

D credits his participation in the NXT Level Youth Opportunity Center in San Antonio’s reengagement program with him being close to obtaining his GED and continuing on to pursue a college education. He was also pleasantly surprised by the team managing it: “They are the only people I’ve met that genuinely care about the community. I wasn’t expecting that when I arrived, and I’ve been very pleasantly surprised.” In closing, he asks me to share this with at-risk young adults: “No matter what you’ve been through, you can accomplish your goals! Always believe in yourself.”

The Dallas Federal Reserve Bank published an “Opportunity Youth in Texas” report in October 2019,⁶⁰ where gathering qualitative data, three focus groups were conducted with opportunity youth enrolled in a reengagement program. All focus groups were asked what advice they would give to their disconnected peers looking to reconnect, and these are their responses:

60 Ana Crockett et al, “Opportunity Youth in Texas,” *Federal Reserve Bank of Dallas*, October 2019.

“Speak your mind.”
“Don’t let anything hold you back.”
“Learn from my mistakes.”
“Be heard and not listened to.”
“No more self-doubt.”
“Admit your mistakes.”
“You only live once; make good decisions.”
“Don’t get greedy—stick it out [by completing high school rather than working].”
“Give it [the program] a chance and be open minded.”
“Don’t give up.”
“Work hard.”
“Keep going.”
“Read a lot.”
“You can’t control everything that happens to you, but you can control the amount of effort you put into things.”
“Don’t leave a stone unturned.”

I like D’s story because once he reengaged, he decided to pursue a college education. I want to be clear that I’m not advising anyone to not pursue a college degree. For millions of young adults, college provides the education that they need for the twenty-first century, even if it doesn’t guarantee success in life.

In Mexico, “Less than a quarter of the young population (twenty-five to thirty-four-year-olds) have obtained higher education qualifications, and within this limited share of graduates, evidence shows that their skills are not used effectively.”⁶¹ In the US every year, over 1.2 million students drop

61 “Higher Education in Mexico: Labour Market Relevance and Outcomes,” OECD, accessed October 15, 2020.

out of high school⁶² and 56 percent of college students who start a four-year college curriculum do not graduate in four years and end up dropping out by year six.”⁶³

If you're in this last category or just feel disengaged, my hope is that this book inspires you to reengage.

The Blue-Collar Stigma and Vocational and Educational Training

Bryan Caplan, an economist and author, states, “As a society, we continue to push ever larger numbers of students into ever-higher levels of education. The main effect is not better jobs or greater skill levels, but a credentialist arms race.”⁶⁴

In both the US and Mexico, as a result of multiple social, economic, and political factors, the culture has been one of aiming for a college education and, only when not possible, finding an alternative path. There is a blue-collar stigma where folks with a college degree are conferred a higher status than the ones who don't have a degree. And as proof, blue-collar workers who successfully transcend their “cast” into a white-collar job are recognized and praised.

The system worked relatively well during the mid-twentieth century but then started to show some signs of foundational

62 “11 Facts about High School Dropout Rates.” DoSomething, accessed September 10, 2020.

63 “U.S. College Dropout Rate and Dropout Statistics,” CollegeAtlas, Updated June 29, 2018, accessed September 10, 2020.

64 Bryan Caplan, “The World Might Be Better Off Without College for Everyone,” *The Atlantic*, January/February 2018.

stress toward the latter part. The advances of automation and AI that are now evident in the twenty-first century have revealed further results of stress because we're now faced with the possibility of not enough jobs, as we know them today, being available in the not too distant future. Yuval Noah Harari, in his book *21 Lessons for the 21st Century*, shares "... despite the appearance of many new human jobs, we might nevertheless witness the rise of a new useless class. We might actually get the worst of both worlds, suffering simultaneously from high unemployment and a shortage of skilled labor. Many people might share the fate not of nineteenth-century wagon drivers, who switched to driving taxis, but of nineteenth-century horses, who were increasingly pushed out of the job market altogether."⁶⁵ This gave rise to the debate surrounding the pros and cons of a universal income concept.

I interviewed Esther Benjamin, who has been working in global development, international education, and youth development for over twenty-five years, and is currently the CEO and Executive Director of World Education Services (WES). WES is a social enterprise focused on global higher education, credentials, and qualifications. I asked whether she sees changes in the model going forward in terms of alternative paths, and her response was unequivocal: "Absolutely. There certainly are alternative paths to college for work and livelihood. While WES is primarily focused on higher education, our social impact and philanthropic programs consider individuals at all educational, skill, and experience levels, to

65 Yuval Noah Harari, *21 Lessons for the 21st Century* (New York: Penguin Random House, 2018), page 30.

support people to find meaningful employment opportunities.” Commenting further, she added, “Increasingly, life skills are considered substantially by employers, to include organizational skills, problem solving, critical and creative thinking, communication, team, and interpersonal skills.” When asked about her success mindset, she noted, “Striving for success is an individualistic endeavor. I focus instead on a contribution mindset, in order to strive to make a difference in society.” In terms of her leadership advice, she noted an essential component: “It is so important to be intellectually curious and to ask more questions in order to excel in the workplace, regardless of where one sits in the organization.”

A country where the blue-collar stigma doesn't exist is Germany. “In contrast to the US, Germany has a highly effective work-based vocational training system that has won praise around the world. While university graduates in Germany also earn much higher salaries than workers who have attained less education, vocational education, and training (VET), in Germany it is a very common pathway to gain skills and embark on successful careers: 47.2 percent—nearly half—of the German population held a formal vocational qualification in 2016. Fully 1.3 million students in Germany enrolled in VET programs in 2017, compared with only 190,000 individuals who registered for apprenticeship programs in the U.S. in the same year. Less than 5 percent of young Americans currently train as apprentices, and most of them are in the construction sector.”⁶⁶

66 Ajit Niranjana, “What is Germany’s Dual Education System — and Why Do Other Countries Want It?” *Deutsche Welle*, April 6, 2018.

Ralf Hermann, head of the German Office for International Cooperation in Vocational Education and Training (GOVET), has stated that “a system that has grown in Germany under very specific conditions cannot just be exported to another country under very different conditions.”⁶⁷

In November 2019, I held a couple of meetings at the Mexican-German Chamber of Commerce and Industry’s (CAMEXA) office at Santa Fe in Mexico City. I learned that Mexico is the country outside of Germany where the German-based vocational education and training system or dual education system (Modelo de Formación Dual in Spanish) has yielded the best results. There has been a successful implementation of not only the German dual education model, but a Mexican dual educational model that adapts the essence of the German model to the reality and needs of the Mexican labor force and labor demands from industry. From my meetings, I gathered that the German model has been limited in scope and duration to generate the Mexican model.

“In recent years, a number of new work-based training systems have been developed in various states [in the United States], some of them brought to fruition by German companies.

One such example is the dual training systems that the German companies BMW, Siemens, and Volkswagen, imported to North Carolina, South Carolina, and Tennessee to compensate for the lack of skilled workers in those states. The Volkswagen program was initiated in 2000, while

⁶⁷ Ann-Cathrin Spees, “Could Germany’s Vocational Education and Training System Be a Model for the U.S.?” *World Education News + Reviews*, June 12, 2018.

the programs of Siemens and BMW were established in the late 2000s and early 2010s, respectively. Trainees in these programs receive supervised training at industrial plants, learning skills in areas like mechatronics, mechanical and electrical engineering, or computer software. Trainees study in tandem for associate degrees at local community colleges that have partnered with the companies.

The German companies' financial investments are sizable: They usually pay salaries and tuition, or at least provide tuition assistance. Graduates typically continue their studies in bachelor's programs while being employed at the companies. In Charlotte, South Carolina alone, Siemens reportedly spends a total of \$165,000 per trainee. (A detailed overview of these programs is provided by the International Labour Organization.) The programs are supported by the state governments with measures like tax credits for apprenticeship sponsors; they have been so successful in fostering skills development and economic stimulation that other states like Virginia, Maryland, Pennsylvania, Massachusetts, Wisconsin, and Ohio are exploring options to adopt similar apprenticeship programs."⁶⁸

Emmanuel Winkler is a global citizen and Senior Expert in dual vocational training and sustainability. At a conference organized by the Educational Institute of Aguascalientes, a state in central Mexico, he represented CAMEXA and

68 Ann-Cathrin Spees, "Could Germany's Vocational Education and Training System Be a Model for the U.S.?" *World Education News + Reviews*, June 12, 2018.

GIZ.⁶⁹ In it, he highlighted the role that corporations have in the education of the talent pool, which cannot be simply outsourced to education institutions. Corporations derive a positive return on investment when comparing dual TVET to other onboarding and training mechanisms because it is based on a truly interactive involvement in an integral dual educational model with all actors (companies, chambers of commerce, unions, certifying bodies, state and educational institutions, families, and apprentices). He also highlighted the future of work relying on human capital confirmed by continuous learners and critical thinkers.

Mr. Winkler described how the dual educational model is the backbone of the German, Austrian, and Swiss economy where young adults between the ages of fourteen and eighteen years old, when their rebellious attitude often peaks, find themselves busy and motivated by it, in stark contrast with the traditional educational systems. In one of the multiple conversations I held with him, he stressed that “to ensure continuous learning, we need new forms of education at all levels and comprehensive systems that allow a staggered education.”

We’re experiencing a shift toward skills-based learning, training, and hiring practices. An article published by the Society for Human Resource Management in 2018 asks hiring managers to think twice about requiring a college degree.⁷⁰ Mr.

69 Instituto de Educación de Aguascalientes, “Webinar ¿ Quo Vadis - Educatio? - Educación Dual y Formación Profesional Continua - versus Formación clásica Universitaria,” July 31, 2020, video, 1:02:00.

70 “How to Adopt Skills-based Hiring Practices,” Society for Human Resource Management, accessed October 15, 2020.

Winkler raises a very good question: “In light of the changes that we’re facing in this new century, how can we develop a model that combines the flexibility of the US model with the European one which has shown the many advantages of certifications designed and validated by corporations, unions, and the education institutions?”

Advanced technologies open up many alternatives for those with a success mindset and epistemic curiosity. The limitation is no longer geographical, and new pathways are being developed for communities similar to ours all over the globe. When there is no black or white, right or wrong, as is often the case in life, there are always tradeoffs. I encourage you to find your path based on your passion and strengths.

Please jot down a few more questions. I encourage you to start several of them with “What if?” and “What else?”

Questions for Discussion

What companies can you think of that could offer an approach similar to the companies we talked about above—something similar to an apprenticeship?

What else can be offered to students as they graduate high school to make them feel they are going on a career path but does not involve the standard options?

What if your company, or the company you work for, created such an option for young adults? What would that look like?