CHAPTER TWO

A "Cloudy" Forecast: The Future of Higher Education

In 2002, the Massachusetts Institute of Technology (MIT) began offering all of its undergraduate courses available online for free. In 2008, Straighterline—an online university—provided students the opportunity to obtain a college degree at a cost of ninety-nine dollars a month. In 2009, Trina Thompson sued her alma mater, Monroe College, for $72,000 because she was unable to find suitable employment after receiving a four-year college degree. In 2011, a nationally touted study claimed that 45 percent of college students couldn't demonstrate any increase in knowledge after their first two years of college. Later in the year, the University of the South became the first college in the nation to voluntarily decrease its tuition. It dropped the price by $4,600—or almost 10 percent. Tuition was still $41,400 a year.

The above examples are anecdotal, but point toward larger structural change in higher education. How knowledge is being disseminated and shared is shifting, the demands and needs of students are changing, learning habits are in flux, and by necessity (albeit slowly) new educational business models are emerging.

Below is a fictional encounter between Megan, a mature-for-her-age high school senior, and her father, a factory line supervisor. Their conversation offers a peek into the cultural, behavioral, and technological changes that have affected higher education in 2020.

Future Scenario

"Are you nervous, honey?"

"Not really," replied Megan.

"Well, then open it," said the father, referring to the notification she just received on her mobile device. It contained a secure link to the results of his daughter's Secondary Education and Vocational Propensity Evaluation, or "SEVtest"—as most students called it.

"I don't know why they couldn't have just provided me the results as soon as I finished the exam. I know the test scenarios are continually adapted based on my responses, and I'm certain the program had my results immediately after I finished. Maybe it's a psychological thing…an institutional leftover from the days when your SAT or ACT scores arrived by paper mail."

"Just open it," prompted the father, "this is your ticket to a better future."

Megan rolled her eyes. "No, it isn't, Dad. At best, the test scores will help me understand where I should focus my energy. And besides, many of the careers suggested by the test won't be relevant in a few years."

"Please," replied the father in a tone suggesting his paternal patience was being tried, "open the link." Megan nonchalantly did so and absorbed its content. She showed no emotion.

"Well?" asked the father pensively.

Megan showed him the results and he embraced his daughter in a big hug. "Top Placement Status. You did it! I'm so proud of you." Excitedly, he added, "It even lists 'veterinarian' as one of your top career aptitudes—remember how you always talked about working with animals as a girl? So what are you thinking? Harvard? Stanford? Northwestern? Maybe Colorado State or Minnesota for vet school? You can pretty much write your own ticket!"

Megan said nothing. Following a long pause, she then said, "You're

right, Dad, I can write my own ticket."

"That's the spirit!"

"No, Dad, I mean I'm really going to write my own ticket. I'll be getting the rest of my education from 'Cloud University.'"

"Cloud University?" replied the father in a confused tone. "I thought taking classes that way was just for students who didn't have any other options. You could go anywhere with your scores!"

"Haven't you been paying attention to the news, Dad? Regular degrees from regular schools don't work anymore. In fact, some universities are even offering low-performing students incentives to quit following certain educational tracks—such as elementary education and law—and instead pursue new fields of study. Traditional universities are lame . . . I want training to succeed in this rapidly changing world of ours. Most of what you 'learn,' I could find out in seconds in the cloud. I need training in knowing how to use the vast resources that surround me, not useless facts to memorize. I'm going to put together my own degree from the millions of excellent and free courses now available—and I intend to help others do the same."

"Megan, that's not a serious option. How could you waste all of your hard work just to study online? I mean, why would you even think . . ."

Before he could go any further, his daughter cut him off. "Look, Dad, I've already received almost a year's worth of college credits by taking advanced placement (AP) courses online."

"I know and I'm proud of you, but you went to school to do it."

"Only partially true—my French and advanced calculus courses were online because my high school didn't have qualified instructors, but I could have just as easily taken my English and chemistry courses online." Continuing, Megan said, "It might also interest you to know that the reason I performed so well on the SEVtest is because I used an online test prep program

that trained me how to think in a way that would help me give the types of answers the test was looking for. It won't be because I studied endlessly about facts. The classroom-only learning mentality should have disappeared when the personal computer was invented. I'm telling you, it's a waste of money to spend tens of thousands of dollars a year for a traditional education. Plus, who made the rule that four years is somehow the optimum—or magical—length of time to acquire knowledge?"

"But who'll hire you without a formal degree?"

"Accreditation isn't the answer, Dad. It's the problem. Every year millions of college students graduate and are unable to find good-paying jobs because they aren't prepared. What today's best employers care about now is not 'where' you went to school but, rather, how well you perform on their own competence and aptitude tests. Today's colleges aren't preparing students for either one."

"That's not the school's fault."

"Yes, it is, Dad. Most of them are still in the business of providing average students an average education. The degree is barely worth the piece of paper it's printed on. Most people are just buying an old, stale brand that has outlived its usefulness and no longer provides much in the way of nutritional value. Most universities do little to equip you with the skills that really matter—like intellectual curiosity, adapting to new knowledge, innovative thinking, and creative problem-solving.

"That may be, but with your scores you can go to a prestigious university. Think of the connections and contacts you'll make."

"True, but at what cost? Plus, it won't be those schools that make me a success. I'm responsible for my own success, and I can educate myself for next to nothing."

"But how will you get a job? I wouldn't hire someone without a de-

gree."

"Many entrepreneurial employers are no longer impressed with a mere diploma, Dad. They want you to demonstrate knowledge—not show them a piece of paper that cost you or your parents a hundred grand."

"But . . ."

"Look, Dad, how many times have you changed jobs this past decade? Five? Six?"

The father nodded his head in agreement.

"And all of those jobs you lost because you were either replaced by automation or because the career you were in ceased to exist due to advancements in technology, right?"

"Yes, but that's because I didn't go to college and didn't have a degree. If I did, I wouldn't have been in those lower-skilled jobs to begin with! That's exactly the fate I want you to avoid."

"No," replied Megan softly, no longer looking him in the eye, "It's because you weren't able to adapt fast enough and couldn't demonstrate an aptitude for acquiring a new set of skills quickly. The future is only going to accelerate society's need to adapt. New technologies and new industries are emerging almost overnight now and, in their wake, they're leaving jobs—not to mention entire industries—in their dust.

"This is my future, Dad. I'm going to have to survive in a jungle where I'll have to swing from branch to branch every few years—or maybe even months—in order to get my next banana. More likely, I'll have to create my own branch and grow my own bananas. What school is preparing students for this future? What good is a degree for a skill, a job, or an industry that no longer exists?"

The father was silent.

"I'll tell you, no good!" After a pause, Megan then backed off the state-

ment. "Look, Dad, I'll admit that some jobs still require a degree from a traditional university. I'll also admit that some schools and some degrees are better than others. Hell, I'll even admit that many students—including some of my friends and classmates—might benefit from a traditional education. But I won't. I'm self-motivated. I want experiential knowledge, because I understand I'll constantly need to invent my own jobs in the future if I want to stay gainfully employed.

"What I learned working with a mentor at the coding academy I attended last summer was more valuable than anything I learned my whole senior year. Plus, I don't care to sit in a huge room with lackluster students, listening to a professor—or more likely a teacher's assistant—who has never worked a job outside of academia in her or his life, talk about skills that were only useful in a job environment that existed a decade ago."

"But what about the social aspects of college?" asked the father. "One of the most important things you learn in college is how to interact with different people."

"Really, Dad?" said Megan in a sarcastic tone. "You want me to go into serious debt so I can learn how to interact with people? In case you haven't noticed, there is this little thing called the Internet that has been around since I was born, and I use it to stay in touch with friends and connect with new ones—as well as potential employers."

"I don't know, Megan. Your plan is so risky."

"What's really risky is spending $100,000 with no guarantee of a good job at the end of college." Megan then paused before adding in a more conciliatory tone, "How about we compromise?"

"I'm listening," said the father.

"Here's what I'd like to propose. I want to pursue an entrepreneurial venture at the same time I'm studying. If I haven't learned enough to allow me

to earn a living and move out of the house by the time I'm twenty, I'll enroll in a traditional school."

"What exactly do you have in mind?"

"I'm glad you asked. It might please you to know that some friends and I are already developing a new mobile application that delivers customized educational lessons to other motivated self-learners. We then plan to market the technology to employers who need to upgrade the skills of their employees."

"And who are these friends of yours?"

"People I've gotten to know through various networks," replied Megan. "I met Paul when we helped tutor each other. He helped me with my French, and I helped him with his English. We started talking and we both believe there is a huge market for educational tools to help people like ourselves—motivated self-learners—so we reached out to a few other like-minded people.

"To make a long story short, we've partnered with Ajay, a programmer in Bangalore, who has developed an algorithm that rapidly searches video databases to create customized learning experiences that utilize the clips that have been rated the highest by past users. If necessary, the program will translate the videos into the student's native language. Tobius, another programmer, in Norway, has developed an educational assessment tool that further tailors the information so it can be delivered in the format most appropriate for the individual. For example, depending on whether the person learns visually, auditorially, or kinesthetically—or some combination of the three—the program delivers the lesson plan that will be best understood and absorbed by the student. My friend Paul is working on a related program that uses voice and facial recognition technology to determine if the person is successfully processing and absorbing the information.

"My role in the venture is to use my knowledge of gaming dynamics to make sure the student can't advance to the next learning module until he or she has either demonstrated a thorough understanding of the concept being presented or earned enough 'experience credits' by participating in programs, courses, lectures, or activities that provide the functional equivalent of traditional classes. My tool will also be designed to access peer-based learning tools as well as ensure that the student is fully engaged by making the learning enjoyable and, if possible, slightly addictive—like a good video game.

"We then have another teammate—Maria, a data-mining guru, from São Paulo—who is using publicly available data to identify other self-learners to whom we'll market our technology. She's also working on a related program to help identify employers who might use our services."

The father was astounded at the breadth and scope of the plan. Finally, he mustered up a follow-up question. "And how do you intend to pay for this venture?"

"Without missing a beat, Megan said, "We're crowd-sourcing it. We've already lined up $150,000 in microloans from an assortment of people around the world."

The father just shook his head and laughed, "And when will a learning module be available to help middle-aged men cope with all this change?"

Megan just smiled. "You'll be fine, Dad. Just remember the future of education isn't learning *about* something, it's about learning how to fluidly adapt to change. And it's definitely not about going to a physical place to get 'educated'; it's about accessing and customizing the ocean of knowledge that already surrounds us in 'the cloud.'"

BONUS QUESTIONS

Do you think your children must attend college to be successful?

How familiar are with free educational resources such as Khan Academy and Udacity, which are already available online?

Think of five careers that existed when you were in high school that no longer exist.

Think of five careers available now that didn't exist when you were in school.

Think of five careers that don't exist now, but may by the time today's sixth graders are looking for employment.

What are the implications of employers hiring not based on degrees, but on skills demonstrated on career-specific tests?

Will most students in 2020 physically attend a traditional four-year university or will they become educated another way?

Imagine an elementary school in the year 2020. What is different than today?

Will the proven ability to perform well in customized test scenarios eclipse university credentialing?