Going Against the Flow in Higher Education: Deliberately Including those Previously Excluded

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Innovations Case Narrative:
University of the People

If everyone actually had the opportunity to obtain a university education, the world would be a different place.

I believe this so strongly that, though I could have retired in 2009, I chose instead to found University of the People (UoPeople): the world's tuition-free, non-profit, online, degree-granting academic institution dedicated to opening access to higher education globally. UoPeople is specifically designed to provide access to college studies for qualified high school graduates, despite financial, geographic, societal, or personal constraints.

We are proud to say that our institution has eliminated almost the entire cost of higher education. Three key innovations allow us to function effectively on a limited budget without sacrificing the quality of education: we embrace collaborative learning, we use Open Educational Resources and open source technology, and we get excellent assistance from approximately 3,000 registered volunteers. By opening the gates of higher education to a globalized student body while limiting operating costs, we are building a scalable model that can be duplicated by governments and universities to show that delivering quality education to masses of people need not be expensive. This model is especially relevant for governments in developing countries that want to reach citizens who would otherwise be left uneducated. Instead of building a traditional brick-and-mortar institution, an elite equivalent to Harvard, developing country governments can turn to quality online education based on resources like ours and thus serve thousands of individuals, offering the courses, especially in computer science and business administration, which will help them find good jobs.

UoPeople's financial model is simple. While our institution is tuition-free, we do ask students to make modest financial contributions to their education. In our tuition-free model, we do not charge for the cost of instruction, books, teachers, or

Shai Reshef is the founder and President of University of the People (UoPeople).

annual enrolment. All we ask of our students is that they cover the cost of processing their applications ($50) and examinations ($100 per end-of-course exam). There are no other costs whatsoever. For those who cannot afford even these nominal fees, UoPeople offers scholarships such as the Hewlett-Packard Women Scholarship Fund, the Intel Haitian Women Scholarship Fund, and the Micro-Scholarship Portal, the first of its kind at any university, which facilitates micro-donations from the public.[1] We offer all of these scholarships to remain consistent with our mission and ensure that no qualified student is excluded for financial reasons. Our mission is to offer higher education to all, and to ensure that all qualified students have the opportunity to study towards an academic degree, whatever their financial situation.

> According to UNESCO, given the growth of youth populations worldwide, by 2025, an estimated 98 million youth will be hoping for places in universities that simply do not exist.

Since we launched in 2009, UoPeople has partnered with Yale University to conduct research, New York University to accept our students for further study, and Hewlett-Packard, as part of its Catalyst Initiative, for internships. To date, we have admitted more than 1,500 students from 136 countries around the world; many had no other alternative. The University has gained the support of leading academics; among them are New York University President John Sexton, Academy of Paris Rector Emeritus Mrs. Michèle Gendreau-Massaloux, Indian Institute of Technology (ITT) Bombay Director Devang Khakhar, Oxford Vice-Chancellor Sir Colin Lucas, Rhode Island School of Design President Emeritus Roger Mandle, Barnard College President Emeritus Judith R. Shapiro, and George Washington President Emeritus Stephen Joel Trachtenberg. They all serve on our President's Council. UoPeople has amassed over 1,250,000 followers on Facebook and garnered media coverage throughout the world. Student satisfaction is high. Each term, we ask students if they would recommend UoPeople to a peer—and 95% say yes.

Thus, we have created a viable solution to the pervasive problem of access to education.

The problem of educational access knows no country borders and is found in every region on earth as financial, geographic, placement, social, and personal constraints are widespread and youth populations grow. According to UNESCO, given the growth of youth populations worldwide, by 2025, an estimated 98 million youth will be hoping for places in universities that simply do not exist.[2]

This narrative informs the successful launch and implementation of a solution to a pressing world crisis. Not only has it changed 1,500 lives in four short years, and built the infrastructure needed to serve masses of students with quality degree

programs; critically, it also serves as a model for governments, communities, and universities throughout the world. At this moment in history, having completed its technological development and demonstrated the quality of its courses, it is entering the next phase, and preparing to scale up rapidly.

THE ORIGIN OF UOPEOPLE

My personal journey from for-profit to retirement to non-profit developed during the 20 years I worked in for-profit education. I was responsible for educational programs for hundreds of thousands of students from kindergarten to university level. Among other efforts, in 2000 I started the first online university outside the United States, in the Netherlands, to deliver online degrees for the University of Liverpool, in Great Britain. In a unique collaboration of private and public education, this venture acquired the rights to deliver—from the Netherlands—online courses for University of Liverpool degrees. This for-profit concept was a great success, and showed me how powerful online learning could be. Students from all over the world were staying at home, continuing with their jobs, and meanwhile getting a wonderful European education.

But deep inside I felt unsettled: I knew that most people couldn't afford the high tuition fees at Liverpool. Online learning was wishful thinking for many—it was simply too expensive. Having worked my way to success through education, I knew first-hand the exciting opportunity of education pitted against the sting of financial struggle.

Understanding when to make a successful exit was crucial; I sold that online university and my other businesses and went into semi-retirement. But retirement wasn't for me; I wanted to continue helping develop online education. I was finally in a position to truly give back and create a mechanism capable of making an impact. To me, the only way to change the world is through education: when you educate one person, you change a life, but when you educate many you change the world.

With this mantra in mind, I decided to try and open the gates to higher education for everyone in the world. This sounds like a lofty goal, but I realized that much of what we needed was already out there for free. Open source technology is available for everyone to use for free. Open education resources are content that people have created and put on the Internet for everyone else to use. Add in the new Internet culture of social networking—where people share, teach, and learn from each other—and the whole system is available free of charge. All I had to do was combine these sources into a viable technology model for online education. And so, UoPeople was born.

When I announced the University I didn't know what would happen. I only knew that it was a potentially high-impact idea and hopefully people would help out. In my wildest dreams I didn't know it would gain the outstanding momentum and support it did.

In January of 2009 at the Digital-Life-Design (DLD) Conference in Munich, I proclaimed the idea of the University. The same day, an article in the *New York Times* described the idea. In response to the announcement and article, hundreds of individuals sent emails expressing their desire to help. Volunteers were approaching the University, rather than the University actively seeking them out. If an individual couldn't volunteer personally, he or she introduced friends who wanted to get involved. This was the situation when I met Dr. Dan Ariely at the DLD. He valued the concept, and its ability to help those who are otherwise excluded, and recommended that I approach Dr. Russell Winer to become UoPeople's Dean of Business Administration. In turn, Dr. Winer recommended Dr. Alexander Tuzhilin to become UoPeople's Dean of Computer Science. Dr. Tuzhilin then recommended Paul Affuso to become UoPeople's CFO. Essentially, UoPeople's volunteers were begetting volunteers, creating a snowball effect of extraordinary momentum.

> When you educate one person, you change a life. When you educate many, you change the world.

Following this pattern, I met John Sexton, president of New York University, at a conference where he offered his help. He then actively recruited members of our Presidents' Council, which he now chairs, and that was only the beginning of his support .

But it is the support of our volunteers that is truly the foundation of the University. I have been continuously astonished by the amount of goodwill from individuals willing to donate their time and networks to help provide education to others in need. The entire core of the University, since our launching, is driven by the enthusiasm of our volunteers, most of whom continue with us for long periods of time.

Our volunteers remain committed because they know the importance of education and the emergency the world is facing. Indeed, the value of education may seem obvious, along with the severe problem of access, but they bear elaboration, as they are crucial to what UoPeople accomplishes daily. The details of the global educational crisis are as fascinating as they are sobering.

THE CHALLENGE OF EDUCATIONAL ACCESS

Education impacts not only the lives of individuals—their income, health and quality of life—but also the societies in which they live.[3] Crime rates, social awareness, economic stability, and sustainable development are often tied to the ability to access education.[4] Education also leads to other social benefits, such as a more socially engaged and informed citizenry, lower child mortality, and better child health.[5]

Yet the United States and other countries continue to face daunting challenges in providing access to higher education. In the United States, in particular, the cost of higher education creates a significant barrier to equality of access.[6] In this country, a student's family background, and racial and ethnic group or legal status, also appear to significantly determine access to college.[7] These disparities in access result in fewer low-income people, African Americans, Hispanics, and American Indians holding degrees. There is also a massive gap between the overall number of degrees that will be produced and the number of jobs requiring postsecondary education. It is estimated that this shortfall will reach 23 million by 2025.[8]

Many studies have established the correlation between improved employment outcomes and higher salaries and postsecondary education.[9] Therefore this gap not only represents the 23 million people who cannot attain higher education degrees. It also speaks, in stark terms, of the millions of people who will be unable to improve their socio-economic status and the generations of Americans who will be unable to pave a pathway out of poverty. As the United Nations has noted, "Education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty and obtain the means to participate fully in their communities."[10]

Indeed, it seems clear that education is a primary means for individuals to lift themselves out of poverty and improve their socio-economic status. Yet today's employers not only demand that their employees possess the requisite knowledge and skills, but that they hold degrees from an institution that provides quality education, a term that is rapidly becoming synonymous with online learning. In fact, online learning, particularly in higher education, is increasingly becoming the new way to learn. Already in the United States, more than 7 colleges in 10 are equipped with full academic programs online. In fall of 2011, more than 6.7 million U.S. students—a full third of those in postsecondary education—took an online course, and at 32%, the proportion of all students taking at least one online course in 2011 was the highest in the last 10 years.[11] Thomas Friedman, in the *New York Times,* recently referred to this growth as a "budding revolution in global online higher education."[12]

Hence, what has changed recently is the notion that quality education can only come from a physical institution. Technology and online education are changing the way we deliver education, and the way we learn. They are providing the capacity to offer quality education to those who would otherwise be left behind.

I often wonder why the Internet was invented, if not to distribute quality education to every single person on earth. Education is simply the single best use of the Internet. We can bring all the knowledge available to students wherever they are, and deliver it in a meaningful way. This is exactly what UoPeople is doing, as evidenced by the milestones the institution has reached to date, shown in Table 1.

University of the People's Milestones ▬▬▬▬▬▬▬

January 2009: UoPeople is launched.

April 2009: Enrolment opens.

May 2009: United Nations welcomes Shai Reshef and University of the People.

May 2009: Fast Company names Shai Reshef to its list of the 100 Most Creative People in Business.

September 2009: Classes begin.

December 2009: Shai Reshef is inducted into the International Ashoka Fellowship.

August 2010: Clinton Global Initiative grants membership to Shai Reshef on behalf of UoPeople.

November 2010: The UoPeople Haiti Project begins; UoPeople commits to educating 250 Haitians for free.

March 2011: UoPeople extends its global reach by admitting students from more than 115 countries.

June 2011: New York University announces collaboration with UoPeople; it will accept high-achieving UoPeople students.

June 2011: HP and UoPeople partner to offer internships for UoPeople students through the Catalyst Initiative.

November 2011: UoPeople partners with a technology center in Ramallah, West Bank.

January 2012: The Ewing and Marion Kauffman Foundation grants $200,000 to UoPeople.

May 2012: The presidents of NYU, Oxford, George Washington University, and other institutions unite behind UoPeople as members of the President's Council.

June 2012: The Bill and Melinda Gates Foundation grants $500,000 to UoPeople.

July 2012: UoPeople introduces its Women Scholarship Fund: Hewlett-Packard pledges $200,000 to educate and mentor 100 women.

August 2012: Hewlett-Packard donates computers to UoPeople's offices and a student computer center used by UoPeople students in Haiti.

September 2012: Google for Non-Profits grants $500,000 to UoPeople.

April 2013: Western Union creates a scholarship fund for UoPeople students.

April 2013: Hewlett-Packard donates $200,000 towards UoPeople's accreditation efforts.

April 2013: UoPeople launches innovative Micro-Scholarship Portal, enabling individuals to donate to specific students in need.

THE LIMITS OF MASSIVE OPEN ONLINE COURSES

In the past ten years, we have seen a proliferation of Open Educational Resources (OER): freely accessible and openly licensed documents used for educational and research purposes. This growth has helped many institutions and individuals learn and gain applicable knowledge—and it has enabled UoPeople to base its entire operations on OER. The recent growth in courses offered online, including massive online open courses (MOOCs) offered by leading universities, testifies to the interest in learning online globally.

However, the enormous interest in MOOCs is coming from existing students. According to Daphne Koller, founder of the MOOC Coursera, 80% of Coursera students already hold degrees, and half hold postgraduate certifications. This implies that people are not using the open access to MOOCs to begin getting a university education; instead, people who already have degrees are adding to their existing knowledge.[13] Furthermore, on average, under 7% of students complete MOOCs.[14] So, if only 7% of registered students, people already experienced with higher education, are finishing MOOCs, how can we expect that those who are just starting out as undergraduates can complete MOOCs without any support? Who will serve these individuals who need the chance at a supportive college education, given that MOOCs apparently cannot do so? Are we creating a situation where the haves are getting more and the have-nots are being left further behind by the illusion that they can get an education for free without support?

Unfortunately for the underprivileged around the world, MOOCs are simply not structured to accommodate the unique demands of those who need to catch up. They need a combination of student services and instructor oversight to help them succeed—and it must be affordable. Our model was designed to accommodate students who deserve a chance, not just to have access to affordable knowledge, but to obtain the necessary support, through academic advising, that will allow them to complete their degrees. Students who enrol at UoPeople complete a cohesive, coherent program and study in small groups of about 20 to 30 students, with dedicated instructors providing guidance, assistance, and personalized attention. UoPeople offers a full curriculum; much like any liberal arts college, it offers courses in Arts and Sciences to supplement the programs in business administration and computer science that each student chooses. Support is offered students in the areas of student services, student affairs, and academic advising. In short, we provide a structured degree program with the learning outcomes of each course tailored to the overall aims of each degree program, and with a full suite of support services for students—what they need to succeed from start to finish.

UoPeople uniquely demonstrates how OER and online learning can not only further an individual's knowledge, but also lead to a degree. Thus, it illustrates the potential to equalize access to knowledge, providing students the opportunity to earn a university degree, regardless of nationality, gender, socio-economic or other status.

To apply to UoPeople, applicants must be 18 or older, demonstrate they have a high school diploma, and be proficient in English, as all coursework is in English. These are the only set requirements. We tell students, if you can demonstrate that you have a recognized high school diploma and sufficient knowledge of English, then come on board. Our gates are open to everyone. We believe that everyone has the right to higher education and deserves an opportunity to earn an academic degree and chart a new course for their future and their family.

CORPORATE PARTNERSHIPS

Since its launch, UoPeople has built partnerships that are paving the way to a faster, and more direct, route to success, through such partnerships as those with Yale's ISP for research and New York University's agreement to accept high-performing students.[15] These partnerships have given us credibility within the academic world. New York University has proved to be an especially strong supporter as it shares a mission of reaching individuals of varied backgrounds from around the world. As NYU's president John Sexton says, "We admire that UoPeople is seeking to bring higher education to so many of the world's disadvantaged, and we anticipate a productive collaboration between them and NYU in identifying exceptionally bright and ambitious young people worldwide who could join our Abu Dhabi campus."[16] Furthermore, many of UoPeople's distinguished academic leadership volunteers hail from NYU.

In conjunction with its university partnerships, UoPeople has developed networking partnerships with social organizations that share its goals, including the United Nations Academic Impact Global Initiative, Ashoka, the Clinton Global Initiative, and Partners for a New Beginning (PNB). It also partners with foundations such as the William and Flora Hewlett Foundation[17] to further the cause of developing OER. And it works with corporations motivated by social responsibility to create scholarship funds such as those of Hewlett-Packard, Intel, and Western Union; all directly help to democratize higher education. The box provides some details on the Hewlett-Packard partnership.

Hewlett-Packard's Social Responsibility Programs for UoPeople

HP has a long tradition of supporting innovation in education, and has invested considerable financial, employee, and computer resources to further UoPeople's educational initiative.

Scholarships. Hewlett-Packard and UoPeople joined forces in 2012 at the DLD women's conference. Worldwide, only 20% of UoPeople's students are female. In sub-Saharan Africa, only 10% are—and it is home to many of our students. UoPeople is eager to improve this ratio and equalize the gender representation of its student body. At the DLD conference, I announced our challenge: attracting more women students. Gabi Zedlmayer, HP's Vice President of Sustainability and Social Innovation, quickly followed this announcement with the news that Hewlett-Packard would be donating $200,000 for a HP Women Scholarship Fund

to support 100 women students working towards associate degrees. As she explains, "HP has a longstanding commitment to global citizenship, education, and gender equality. We are supporting UoPeople in their most critical mission to change the lives of many women through education and technology. This decision supports our goal to transform teaching and learning through innovation and technology and to help the women around the world to advance professionally."[18]

Mentorship. Hewlett-Packard did not stop there, but increased its involvement, creating the HP Mentorship Program. Students who obtain an HP scholarship and perform well academically are eligible to become HP scholars, by participating in the HP Mentorship Program, which pairs an HP employee with a UoPeople student for one-on-one mentoring throughout the duration of their studies. As students are located across the globe, meetings are conducted via Skype, Google+, and other video-conferencing methods; those without broadband use SMS chat. This program gives students a unique and firsthand experience: in addition to gaining access to education, they get to know a successful professional. This helps prepare them for the corporate world and may even help them find a job.

Computers. Hewlett-Packard also donated computers to UoPeople and its ally in Haiti, the Haitian Connection Network (HCN), to grow its Student Computer Center. Few of UoPeople's students in Haiti have personal computers. Some travel, sometimes for miles, to reach the center.

Accreditation efforts. Finally, Hewlett-Packard joined with the Bill and Melinda Gates Foundation, the Ewing and Marion Kauffman Foundation, the William and Flora Hewlett Foundation, the Carnegie Corporation of New York, and others, to support UoPeople's accreditation efforts with a $200,000 donation to be allocated specifically for that purpose.

In addition, Hewlett-Packard works with UoPeople on the shared goal of helping students gain knowledge they can apply in the labor market. While UoPeople is clearly not a job placement organization, it works very hard to prepare students to find jobs and perform well professionally. Hewlett-Packard's internships and mentorships are great tools for this purpose. BAV Consulting supports another internship for UoPeople's business students. Most of our students want to improve their odds of finding a better job, to improve their standard of living and have a chance at a better future. These are the reasons why we teach business administration and computer science: the degree programs in most demand worldwide and most likely to lead to employment. The internship and mentorship opportunities with Hewlett-Packard and BAV further improve students' skill sets.

GLOBAL UNDERSTANDING THROUGH A UNIQUE CLASS FORMAT

UoPeople is unique in another important way. It is driven not only to increase opportunities for workforce involvement, but also to increase global understanding. In fact, the UoPeople classroom experience itself can be described as one large global dialogue with much intriguing conversation and feedback. Because the

Don't Forsake Haiti

By Joe Jean

I would like to say the Haitian earthquake three years ago this month ruined everything. But, sadly, there wasn't much to ruin.

When the earthquake hit my country, life was already very hard for me, just like it was—and is—for many Haitians. I dreamed about going to college, but knew that my family was too poor to afford it. I wanted more, but had no idea how to achieve it.

And then the earthquake came and pushed me even farther away from my dream. Twenty-eight of our 32 universities were wiped out, and the remaining four were hit hard.

But I didn't give up. Now, on the anniversary of the earthquake that hit at the heart of my homeland, I want to tell the world not to give up on Haiti either.

Memories of the earthquake are still so vivid to me. I lost one cousin who was studying nursing in Port-au-Prince. The earthquake has made living in Haiti harder than before since it has negatively impacted all aspects of our lives. But I know that without higher education, all hope is lost.

My quest for a higher education began in 2006, when I passed the TOEFL English language test, which would allow me to apply to a U.S college. But in 2007, things started falling apart at home.

My father was hit by elephantiasis and couldn't work. My mother could not afford to pay for any quality local university for me because she still had to support my two little brothers and my little sister's education. It was always my intention to help support their education once I finished college, but suddenly that wasn't even a possibility.

I didn't give up though, and managed to get a scholarship to study computer science at a private college in Port-au-Prince, about four hours away from my hometown of Cap-Haitien. But the classes were not very challenging, and I started to question whether they were even worth attending. Unfortunately, the earthquake made that decision for me when the campus was destroyed.

I returned to Cap-Haitien, feeling even farther away from my dream of a college education than before I left. This was just another setback, I told myself, and I shifted my focus to looking for a virtual educational opportunity, one that would not be ruined by lack of funds or natural disasters. And then, I found University of the People, a tuition-free online university. It was one of those moments in life when everything suddenly changes.

I began UoPeople as soon as possible. I had no Internet access at home, so I would go to a local cafe where I paid about 76 cents an hour in order to study. I would bring a used laptop given to me by an old high school classmate who moved to Canada. To save money I would try to download as much material as

Joe Jean / Haiti

possible at the cafe and then do the work offline at home. This worked pretty well, except when the electricity went out, which happened frequently.

When UoPeople opened a computer center with a local NGO, it made my life much easier. After a few months I was showing up early to help other students figure things out. I volunteered at the center full time, with no pay for months. Eventually, I was offered a very small stipend but I could not live on it, so I found more work and balanced my jobs, my studies, and my family responsibilities.

While I was studying, UoPeople announced its partnership with New York University to enable the best students to apply to NYU Abu Dhabi. I applied immediately, honestly not even able to imagine a world away from Haiti, but anxious to try for this amazing opportunity. I was invited to the Candidate Weekend in Abu Dhabi. However, to fly to Abu Dhabi, I had to travel through the United States and needed a transit visa. I couldn't get the U.S. embassy to expedite my interview. After all attempts failed, I was heartbroken.

Then a miracle happened. I was granted the transit visa, and made it on time to the Candidates Weekend. As one of 15,000 vying for 150 spots at Abu Dhabi, I knew the odds were completely stacked against me. But I beat the odds. This September, I started my studies, on a full scholarship, at NYU Abu Dhabi.

I am telling you my story because I need you to know that I am not the only one like me. We Haitians have endured and continue to endure enormous daily travails. Many things go wrong in our country, and this is what the world tends to see again and again.

But many things go right too, and it is because of Haitians like me who won't give up until they beat the odds.

online classes are small, with about 20 to 30 students studying with others from as many as 30 other countries, UoPeople increases everyone's access to diversity, allowing students to develop international friendships and global perspectives. A bachelor's degree requires 40 courses, ensuring that students have 40 experiences of meeting 20 to 30 new students from that many countries—and sometimes coun-

tries that are considered to be political enemies. Picture what happens when students from Israel and Palestine study together, or students from India and Pakistan, or students from Greece and Turkey. They get to know each other, and learn to understand and respect each other. Instead of being enemies outside the class they become friends. UoPeople believes that is our contribution to world peace.

UoPeople's classes use peer-to-peer learning with instructor oversight. After students are accepted they are either referred to UoPeople's Accelerated English Program if their English proficiency is not strong enough, or they start taking courses towards their degree. Each course lasts nine weeks; academic weeks start on Thursday and end on Wednesday. In the online classroom, they first find the profiles of their classmates. This format feels similar to Facebook: each student can decide how to set up their profile and how much information to share. The first step, then, is for students to get to know their classmates in the Course Forum. They then find the study guide for the week, the reading assignments, the homework assignments, and the discussion questions.

The discussion questions are critical as they allow students to interact intimately with each other. This is where the peer-to-peer learning and exchange take place. The instructor begins the week by posing a question to the class. After they read everything, the students discuss the material, engaging in global conversations on the subject at hand. For example, a student in China reads the week's lesson material, considers the discussion question, and posts a response. Then a student from Indonesia does the same, commenting on what the Chinese student said. Four hours later, a student from Saudi Arabia, having done the reading, comments on what one of the first two said. At this point, the Chinese student will likely go back into the online classroom to see how others have responded to his comment. The discussions evolve like this all week long: each student, every week, contributes to the class discussion and comments on other students' points. Every discussion forum, of course, is moderated by the instructor, who corrects and responds to questions as necessary. This forum also allows the instructor to identify any gaps in students' understanding of the materials and required learning for the week.

Additionally, the students peer-review each other following the instructor's rubric. For example, after each student posts a response, it is peer graded by three other students. Again, of course, the instructor monitors the process and can override the grade if necessary. Students take the responsibility of peer assessing seriously, and are very careful about how they review their classmates as they do not want to be reviewed unfairly. This peer-to-peer learning, combined with individual, and instructor-assisted learning, creates a unique and exhilarating experience.

By the end of the week, students take a quiz to ensure that they have mastered the materials and send in their homework by email; it is then graded by their peers, under the supervision of the instructor. They keep going this way, between assignments and discussion boards and quizzes, to the end of the course. Then they take a final exam, which is often proctored, and receive a grade.

These are virtual classrooms. UoPeople decided to adopt asynchronous study to accommodate students in every time zone. Further, it limits the mandatory use of audio and video. Many students in developing countries study using dial-up. Materials that require broadband would exclude them—and thus contradict UoPeople's mission. In addition, some UoPeople students study using portable USB drives: they go to an Internet café to download the class material, then travel home to work with it and return to the café to upload the material they worked on. UoPeople has even initiated a virtual desktop to accommodate computer science students who need to work on programming languages, for example, but cannot download a program onto an Internet cafe computer or other computer they don't own. UoPeople specifically uses what is actually available globally, and not necessarily what is the most advanced or cutting-edge technology. Interestingly, even students in developed countries using broadband have reported that this structure of asynchronous study, combined with simple technology and available solutions, is quite helpful, as it allows them to study comfortably by reading anywhere: on the bus or train, during breaks from work, etc.

Instructors play an active role in the classroom; they are there not only to support students but also to act as mentors when necessary. Students can contact their instructors via email, or through the course message board, or they can post a question in the class forum. As previously mentioned, each week the instructor posts a discussion question and reminds students of the expectations for the week through the learning study guide. Our instructors are very responsive, as they should be, to all student inquiries and go a step further by reaching out to individual students if they identify a gap in learning. For consistency, each week's lesson has the same format and at the end of the term—after final exams—the instructor computes the student's final grades.

Thus, we have accomplished what we set out to do. We have shown that a university can lower the cost of a high-quality education by combining Open Educational Resources, open source technology, peer-to-peer learning, and the assistance of volunteers. Not only have we dramatically decreased the cost of education, but we are also providing quality education: an education that graduates can actually use and show to employers. And we have done all this by being technology driven, yet sensitive to the limitations of technological infrastructure worldwide.

Accessible basic technology plays a crucial role in UoPeople's mission; it is one of the methods that enables us to provide tuition-free, quality academic education to students in remote areas.

The exceptionally low cost per student is based on our unique operational model, which consists of five key elements.

No campus. All teaching is online, eliminating real estate costs.

Volunteers. We use volunteers to develop courses, and lead both classes and the whole institution. Thus we can offer excellent academic quality while saving a significant amount of money compared to similar institutions.

Marketing via social media. With over 1.25 million supporters on Facebook, we rely mainly on our supporter community to spread the word.

Technology. We are developing a unique technology platform that provides automated support for students during their entire time with us, from admission to graduation. This allows the University to operate efficiently, with a very lean administrative staff.

Global workforce. As a global organization, we can operate from countries with relatively low labor costs.

UoPeople combines accessible and basic technology with asynchronous study and limited use of audio or video to ensure that students anywhere in the world can study with us, regardless of the technology available to them. In doing so, we are not only opening access to higher education for some, but actually equalizing educational opportunity for everyone. Now, an individual in Haiti with no home electricity or toilet facilities, who walks for half an hour to get to a student computer center, and an individual from a rural area in the United States, learning on a laptop at home or on public transportation, can both access materials equally and participate in the same discussion. Ensuring that anyone in the world can participate is what ensures a truly lively and moving discussion. Combining technology, by automating the administrative processes from admission to graduation using text-based modified OER materials, flattens access in a way that reaches nearly everyone. This does come at a price: UoPeople cannot include the fanciest of technologies or all that the Internet offers, as this would limit access. Another limitation is that all material is in English—but automation technology is actually breaking down this barrier, as translation services are infused and adopted within educational resources.

A friend once said, "When you give, you get back a significant amount more than what you gave." Indeed, what UoPeople is giving is the respect that all human beings deserve in order to learn, improve their skills, and contribute to their communities. In return, UoPeople gets the knowledge that life by life, community by community, the world is improving. The lives we are impacting are those of deserving individuals who are motivated, but merely deprived of the opportunity. One such student, Joe Jean, shares the story of his progress from the rubble of post-earthquake Haiti, to UoPeople, and now to one of the world's most selective universities: NYU Abu Dhabi.

At the core of our daily educational delivery is the knowledge that what we are doing is not only helping individuals of the world change their lives. We are also serving as a model for governments and universities. They can examine, and then adopt, all or part of our model to bring down the cost of education throughout the world. Imagine what can happen when UoPeople scales further. Imagine when governments and universities around the world follow suit and hundreds of colleges on the UoPeople model are educating not just 5,000, or 50,000, or 500,000 students, but millions of them.

The only way to show others that we can achieve a changed and widely educated world is by doing it. So we are.

1. For a list of all scholarships available to UoPeople students, see http://www.uopeople.org/groups/support_us2/support_students The Micro-Scholarship portal is at http://www.uopeople.org/groups/students

2. ISCED levels 5 & 6 UNESCO Institute of Statistics figures & British Council and IDP Australia projections cited in T*he World Conference on Higher Education*, 2009: p.6, available at http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/RANKINGS/Stamenka-JohnDaniel.pdf

3. European Commission, "Efficiency and Effectiveness of Public Expenditure on Tertiary Education in the EU," *European Economy Occasional Paper* no. 70, Brussels: European Commission, October 2010.
http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/op70_en.htm

4. Lance Lochner, "Non-production Benefits of Education: Crime, Health, and Good Citizenship," NBER Working Paper 01/2011, Cambridge, MA: National Bureau of Economic Research, 2011.

5. Mikael Lindahl and Alan B. Krueger, 2001. "Education for Growth: Why and for Whom?" *Journal of Economic Literature* 39, no. 4 (2001): 1101-1136; European Commission, "Efficiency and Effectiveness."

6. The rising costs of higher education are noted, for example, in College Board Advocacy and Policy Center, Trends in College Pricing 2012 and Trends in Student Aid 2012; these show that the average 4-year degree in the United States costs approximately $8,000 to $40,000; see advocacy.collegeboard.org. The website of the College Affordability and Transparency Center, of the U.S. Department of Education, at http://collegecost.ed.gov/catc/Default.aspx, shows that the average tuition at a four-year public university rose 15% between 2008 and 2010.

7. Michael McPherson and Morton Schapiro, *College Access: Opportunity or Privilege?* New York: College Board, 2006; Derek Thompson, "How America's Top Colleges Reflect (and Massively Distort) the Country's Racial Evolution," *The Atlantic*, January 23, 2013; Lumina Foundation, *A Stronger Nation through Higher Education*. Indianapolis: Lumina Foundation, 2012, available at http://www.luminafoundation.org/newsroom/newsletter/archives/2012-05.html

8. Lumina Foundation, *A Stronger Nation.*

9. As the World Bank notes, "the education sector can become an effective fiscal instrument for alleviating poverty and redistributing income." World Bank, "The Education System in Malawi" World Bank Working Paper 182; Washington, DC: World Bank 2010: 102. See, for example, *The Pew Charitable Trust, How Much Protection Does a College Degree Provide: The Impact of the Recession on Recent College Graduates*, Washington, DC: Pew Trust, 2013, available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2013/Pew_college_grads_recession_report.pdf; Anthony Carnevale, Tamara Jayasundera, and Ban Cheah, *The College Advantage: Weathering the Economic Storm*, Washington, DC: Georgetown University Center on Education and the Workforce, August 2012; and Katie Zaback, Andy Carlson, and Matt Crellin, *The Economic Benefits of Postsecondary Degrees: A State and National level Analysis*, Boulder, CO: State Higher Education Executive Officers Association, 2012, available at http://www.sheeo.org/resources/publications/economic-benefit-postsecondary-degrees

10. Committee on Economic, Social and Cultural Rights, General Comment 13: The Right to Education, E/C.12/1999/10 (8 December, 1999), paragraph 1. For education's impact on society, see European Commission, "Efficiency and Effectiveness"; Lochner, "Non-production Benefits of Education," and Krueger and Lindahl, "Education for Growth."

11. I. Elaine Allen and Jeff Seaman, *Changing Course: Ten Years of Tracking Online Education in the United States*. Babson Park, MA: Babson Survey Research Group and Quahog Research Group, 2013.

12. Thomas Friedman, "Revolution Hits the Universities," *The New York Times*, January 26, 2013.

13. Jo Morrison, "MOOCS: Daphne Koller of Coursera Shares Insights," Digital Present (blog), January 2, 2013.

14. Chris Parr, "MOOC completion rates 'below 7%,'" *Times Higher Education*, May 9, 2013, available at http://www.timeshighereducation.co.uk/news/mooc-completion-rates-below-7/2003710.article

15. Specifically, "within the partnership, the Yale ISP will engage in research, advocacy, and network building to advance the marketplace of ideas supporting UoPeople's effort to create accessible, high-quality digital education." http://www.law.yale.edu/intellectuallife/10191.htm
16 See http://www.nyu.edu/about/news-publications/news/2011/06/09/nyu-partners-with-uopeople.html
17. For more information on partnerships, see http://www.uopeople.org/groups/partners
18. See http://www.uopeople.org/180845.