

GAME CHANGERS

EDUCATION and INFORMATION TECHNOLOGIES

Edited by **DIANA G. OBLINGER**

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Game Changers: Education and Information Technologies

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FROM THE EDITOR

I would like to thank the many people who made this book possible, particularly Gregory Dobbin for managing the project and Karen Mateer for her research.

—Diana G. Oblinger

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University of the People

Shai Reshef

Introduction

Let us think of education as the means of developing our greatest abilities, because in each of us there is a private hope and dream which, fulfilled, can be translated into a benefit for everyone.

— John F. Kennedy

Millions of people around the world lack access to higher education either because it is too expensive or because cultural and geographical barriers prevent them from pursuing their educational goals. The University of the People, abbreviated as UoPeople, believes that education is a fundamental human right and that higher education should be universally available to qualified students, regardless of their personal or financial circumstances. This pioneering institution is the first nonprofit, tuition-free (although not entirely no-fee) on-line university. Since UoPeople's first semester began in September 2009, its programs have been available to students around the world.

The following are the three main points to understand about UoPeople:

- It was created to assist individuals who seek higher education, but currently are unable to attain it due to financial, geographic, or societal restraints.
- It is based in the belief that higher education is an essential catalyst for generating economic development and, just as important, for creating a more peaceful world through access to individual thought and heightened exposure to diversity.
- It seeks to serve as a model for universities and governments to encourage an industry-wide, global drop in education prices as it models



the delivery of higher education at significantly less expense with its creative infrastructure. At its core, this innovative university hopes to create positive change in worldwide higher education through its disruptive effect.

Rationale for the Approach Taken by University of the People

Bringing together students from all walks of life, across cultures and nationalities—that is the ultimate learning experience.

—Shai Reshef, UoPeople founder and president

The need for education in general, and tertiary education specifically, is a growing global concern, especially for countries in the developing world where the education index is very low. (The education index is one component of the United Nations' annual Human Development Index and is measured by combining literacy rates with the gross enrollment ratio for primary, secondary, and tertiary participation.) Africa—most notably, perhaps—has a long history of low participation rates in postsecondary education. In Sub-Saharan Africa, despite rapid growth in tertiary education, recent estimates are that only 6 percent of eligible students have access to higher education.¹

Socioeconomic conditions lead to significant inequality in access to higher education in both developed and developing countries. In regions that have been devastated by natural disasters, political conflicts, or social upheaval, colleges and universities are often severely affected, leaving few or no options for students who want to further their education. Haiti provides a striking example: the 2010 earthquake that ravaged that country destroyed twenty-eight of the thirty-two major universities in Port-au-Prince and the surrounding area, and the other four were severely damaged.²

The primary reason that millions of people are unable to attain higher education is that most people on the globe today can't afford the cost of going to college. This is an issue even in wealthy countries: in the United States, the cost of higher education has been steadily on the rise over the last three decades—growing four times faster than the rate of inflation—causing many students to find that a college degree is simply out of reach.³

In addition to the expense, in many regions of the world there simply aren't enough colleges to accommodate the number of students who would want to attend. Neither the private sector nor governments have the resources to build enough bricks-and-mortar colleges or universities to accommodate the

need. Potential students may desire to study—and may even have the financial resources to attend a college or university—but there simply aren't enough institutions available to admit them.

Cultural factors can also limit access to higher education for some students. Even in the United States and other developed countries, family background, personal circumstances, or socioeconomic status lead to wide disparities in access to postsecondary education. In some cultures, women may be excluded from going on to college. In many areas of the world, notably Sub-Saharan Africa and the southern and western regions of Asia, even if women have access to higher education, they enroll at far lower rates than men.⁴ Geography can also be a factor, especially for students who don't live close enough to a college or university to attend: Students whose families rely on them for financial or other kinds of support may be unable to relocate. Such students face limited possibilities for their future if their educational aspirations remain unfulfilled.

The main goal of UoPeople is to enable individuals to obtain a tuition-free higher education from wherever they are in the world, with the hope that these students will reap both personal and economic rewards. Evidence shows that obtaining an education is not only a path to employment, but can positively impact individual health, lifetime income, and other quality-of-life measures. In addition, access to higher education can produce many positive ripple effects for communities where college graduates work and live, such as improved economic stability and social awareness, as well as reduced crime rates. Education is linked to having a more informed and engaged citizenry and aids in the lowering of child mortality rates and in the promotion of child health.⁵

The Creation and Vision of UoPeople

However futuristic it may seem, what we're living through is an echo of the university's earliest history. Universitas doesn't mean campus, or class, or a particular body of knowledge; it means the guild, the group of people united in scholarship.

—Anya Kamanetz, author of *DIY U*

Similar to most online educational programs, UoPeople uses the power of networked technology to substitute for a traditional on-campus experience. And, just as other online education programs do, UoPeople combines technology with relevant pedagogical e-learning methods to bring college-level coursework to students around the world. UoPeople has developed its own

information architecture for business processes, data management, and academics in order to reduce the cost of delivering its educational program to substantially less than that of a conventional education. The institution's business model is designed to keep operating expenses at a minimum while ensuring that the systems are scalable and sustainable as the university's student population grows.

The university relies on peer-to-peer learning using open source technology, open educational resources (OER) materials, and volunteers. By leveraging access to the Internet with the availability of free materials online—including resources from MIT and many other institutions under the Creative Commons license—UoPeople can provide quality postsecondary education for a fraction of the price of a similar program at a traditional institution. Thus, it is able to promote its mission of democratizing higher education and its vision that universal access to education promotes world peace and global economic development.

UoPeople's mission and vision are guided by the university's four core values:

- **Opportunity**—the belief that affordable education is a basic human right for all suitable applicants;
- **Community**—the creation of a diverse group of students and faculty from around the world engaged in a common learning enterprise;
- **Integrity**—an emphasis on personal and institutional professionalism, with the expectation that all participants are honest, responsible, and maintain a seriousness of purpose; and
- **Quality**—an academic program that is rigorous, suited to the challenges of today, and assessed on an ongoing basis.

The Academic Model Used by UoPeople

UoPeople is a bold venture designed to break the barriers to knowledge preventing many people from enjoying the benefits of the modern world. UoPeople is likely to create a new world of knowledge transactions.

—Dr. Y. S. Rajan, member, UoPeople Advisory Committee

The entire academic program of UoPeople is comprised of online courses. Students at UoPeople reside in nations all over the world. Students seeking admission to UoPeople are required to have a high school diploma and a sufficient command of English language skills. Each accepted applicant is

required to take (and successfully pass) two orientation classes, Skills for On-line Learning and English Composition 1, to ensure that they are prepared to complete their course of study. Courses are held within a virtual classroom. Each course is nine weeks long, with each weekly class component beginning on Thursday and ending on the following Wednesday. Courses are conducted in English only and each course section has an enrollment of up to about twenty students. Library services are available to students and faculty through the UoPeople Library and Resource Center, which offers access to the university's collection of electronic databases, resources, and online assistance from a staff of librarians.

A few key characteristics of the UoPeople educational experience distinguish UoPeople from other online higher educational programs.

First, the courses offered by UoPeople rely solely on text-based materials. Offering only text-based course materials and assignments may seem antiquated in an era when audio and video are routinely used to augment online learning, but UoPeople has deliberately chosen a "lower tech" and simplified approach. Opportunity and community are two of the university's founding principles, and UoPeople wants to be sure that all its students, wherever they are in the world and no matter what kind of computer technology or connectivity they have, will be able to access the materials required for their classes. This is especially important for students in developing countries, where the only access they may have to the online world may be from an Internet café or via a slow connection.

Second, each course is managed and conducted asynchronously, i.e., a student accomplishes his or her work for that particular course at any time and place during the week that is most convenient for that particular student. This arrangement provides students the flexibility to use the materials when and where they are able to within the framework of each week's class.

A third distinctive component of the UoPeople program is that the university (as of 2011) offers coursework in two fields: computer science and business administration. The founder of the university decided to focus on these two fields—at least initially—because computer science and business administration are relevant worldwide and because these fields directly lead to employment opportunities. The underlying principles in each of these fields can be applied in practical ways globally.

For typical UoPeople students, the classroom experience might follow a scenario such as this: Once they have successfully registered, students are given access credentials for their particular course, its virtual classroom, and the course materials. When students enter their virtual classroom, they will encounter students from a variety of other countries, exposing them to an array

of diversity they may not have encountered before and assisting in creating cultural awareness and understanding. In addition to their peers, students will find lecture notes, weekly reading and homework assignments, and discussion questions. A critical part of the peer-to-peer learning model, the discussion questions are central to the academic work of each class. Each student reads the assignment and discussion question and downloads the materials for that week's class. Students read their assignments and assimilate the course material, then begin engaging in a dialogue about that week's assigned discussion question. As students from around the world contribute to this discussion, they bring their own perspectives—cultural or personal—as well as their own ideas about the reading assignment. Their ideas may be enlarged upon or even challenged as the conversation proceeds during the week.

Because this course structure is designed to encourage a peer-to-peer learning process, the role of the instructor is different from what it would be in a traditional classroom setting. Instead of serving as the all-knowing source of information for the students, the role of the faculty member at UoPeople is to monitor the class dialogue, answer any questions students have along the way, "coach" students through the course, and encourage their engagement with the material and assignments. As students gain familiarity with the process and with the materials, they tend to coalesce as a group, and the discourse then builds and develops naturally. At the end of each week, students take a quiz to demonstrate that they have successfully mastered the information covered in the week's assignment. When the ten-week period concludes, students take an examination to demonstrate that they understand all content of that particular course. At the end of the course, they receive a grade and are allowed to advance to the next course in their program.

The Financial Model Used by UoPeople

I am able now to do the studies I have always wished for and also cater to my family's needs. UoPeople stands out as far superior at a fraction of the cost.

—Alexander M., a UoPeople student from Papua, New Guinea

Although the university is tuition-free, there are modest fees including a one-time processing fee for an application. Starting in 2012, processing fees for examinations will also be implemented. These fees are necessary for the nonprofit UoPeople to remain sustainable and provide its education. The application fee is based on a sliding scale of \$10 to \$50, depending on the

applicant's place of residence (students from countries with lower-income economies are charged less than students from more affluent places). For example, the application processing fee for a student in Afghanistan is \$10, whereas the application processing fee for a student in the United Kingdom is \$50. The examination processing fee will be based on the same sliding scale determined by the student's place of residence and set at \$10 to \$100. Based on these processing fee charges, a student's direct expenses to complete a full BS program at UoPeople would cost anywhere from less than \$400 to less than \$4,000. With these processing fees, UoPeople's financial model predicts that it will be sustainable at 10,000 to 15,000 students.

An Effective Model: Evidence and Aspirations

It's amazing that everything is available just on my fingertips: classmates from all over the world, qualified instructors, free textbooks, online library, technical support, student services, and a discussion forum. It's awesome.

—Marice S., a UoPeople student from Indonesia

In its second year (as of November 2011), the University of the People is still very much a developing institution. And although it is young, the administration, staff, and faculty of the university know that their efforts will significantly improve the employment prospects and socioeconomic status of their students and graduates. Ultimately, strengthening students' job prospects and economic status through education will benefit their families and communities as well. Business administration and computer science students will gain skills that can readily contribute to the economic development of their countries. UoPeople students also benefit from the diversity of the student body as new associations and global friendships flourish in virtual classrooms. Sharing space together in a virtual classroom and partaking in the diversity of ideas and opinions helps to heighten students' awareness of other cultures and can offer a very enriching learning opportunity. Outside the virtual classroom, fellow students might have considered themselves enemies, but with the affiliation and possible affinity of the online experience, students may come to understand that the "enemy" or the "other" is really not all that different from themselves. By encouraging diversity, the UoPeople model promotes peace, tolerance, and understanding among the peoples of the world.

The faculty members of UoPeople, most of whom serve the university as volunteers, come from all over the world, including top-flight academic

institutions in North America (e.g., Yale, New York University, Columbia, Emory, Hofstra, and Rutgers), as well as from relatively newer institutions located elsewhere around the globe and online universities. These volunteer faculty members may be active or retired professors, master's-level students, or working professionals from the fields of business or computer science. UoPeople pays those academic volunteers who serve as instructors a modest honorarium in order to ensure commitment. It also relies on a small cadre of paid staff to supplement the academic volunteers and to keep programs running smoothly and consistently.

UoPeople benefits from its affiliation with the traditional academic community in other ways as well. Since 2009, UoPeople has been a research partner of Yale Law School's Information Society Project, a center devoted to studying the relationship between the Internet and new technologies, especially as it affects law and society. In 2011, New York University announced that it would consider eligible UoPeople students for acceptance to its campus in Abu Dhabi. In another show of support, Hewlett-Packard (HP) invited UoPeople students to become online interns with HP's Catalyst Initiative, a program aimed at supporting projects to improve STEM education (science, technology, engineering, and math).

UoPeople has attracted support from a number of countries and nonprofit agencies, including the United Nations, the World Economic Forum, Ashoka, and the Clinton Global Initiative. It has garnered widespread press coverage from the *New York Times*, CNN, ABC News, *The Guardian*, and as many as one thousand other national and international news outlets. In 2010, *The Huffington Post* named Shai Reshef one of its "Ultimate Game Changers in Education," and in July 2011, the university's innovative model was profiled in *The Chronicle of Higher Education*. Furthermore, UoPeople's model has been presented at many conferences. The university's Facebook page—which, as of November 2011, has a fan base of over half a million Facebook users—promotes its programs and philosophy and encourages its students with inspirational messages about achievement and education.

As of November 2011, UoPeople has accepted over 1,200 students from 121 countries. In a continuing effort to evaluate and assess all aspects of its academic model, the university actively solicits feedback from its students. At the end of each term, students are asked to complete an extensive survey about the quality of the course, materials, instruction, and technology. In a survey conducted in May 2011, 97 percent of students reported that they were satisfied with their studies at the university, and 88 percent said they believed their educational goals would be achieved at UoPeople. But the question that

matters most is, "Would you recommend the UoPeople to your peers?" In the May 2011 survey, 95 percent answered that question in the affirmative.

An Example from the Field: The Haiti Project

After high school, I could not go to university because it was too expensive. Every day, I would stand in the street talking with my friends about what we would do if we had money. We hoped that 2010 would be better, but then the earthquake destroyed everything, houses, businesses and many lives. Since that day, I have been sleeping in the street, under a tent, and nobody cares about my education anymore. University of the People is better than food and a tent. And education is even better than a visa or a green card.

—Elysee, a UoPeople student from Haiti

UoPeople's groundbreaking work in Haiti following the devastation of the 2010 earthquake—which destroyed twenty-eight out of the country's thirty-two universities—serves as a fitting example of the university's commitment to its mission. In Haiti, UoPeople implemented a dedicated project using technology to help address the country's need for educational services. The project will give 250 Haitian students the opportunity to pursue their education online. As part of the project, UoPeople has formed partnerships with local NGOs to provide hardware and connectivity (including computers, electricity, generators, high-speed Internet access, and security) at student computer centers in various locations. As of November 2011, over eighty students have been admitted to the university as part of the Haiti Project and have undertaken their coursework in the Port-au-Prince and Mirebalais computer centers. Because many students have been left extremely poor following the earthquake, UoPeople, in conjunction with a local partner at one of the centers, has created a feeding program where students study for four hours a day and are provided a free meal. Fund-raising to raise money to support additional students and/or implement additional feeding programs is ongoing. In establishing a local option for students to pursue their education, this initiative also attempts to stem the "brain drain" migration, which has seen some of the brightest and most talented Haitians leave their homeland in search of better educational or occupational opportunities. By making higher education available for the people of Haiti, UoPeople is providing much-needed skills in these communities and encouraging efforts to rebuild areas in this devastated country.

UoPeople's Future Expectations: Challenges and Opportunities

Think what a world we are becoming—a world where money is not required in order for individual and collective intelligence to be expressed and compounded. Removing money from the equation, we will see in a very short time what universal affordable education will achieve in changing, brightening and modifying the world we live in.
—Shai Reshef

Although it shows promise as an alternative to the standard higher educational model, and although its first several terms have been successful, UoPeople faces many challenges as it strives to fulfill its mission of bringing quality and affordable education to deserving students.

The clearest challenge UoPeople faces concerns sustainability: to prove that it can in fact break even with 10,000 to 15,000 students as it believes, and then to continue to remain financially viable as it expands further. A distinct second challenge is the scalability of relying on academic volunteers. At present, UoPeople pulls from a pool of over 2,000 volunteers; this is sufficient to meet its November 2011 needs with 1,200 accepted students. At 10,000 or even 100,000 students, this dependence on volunteers may need to be reevaluated. The third challenge for UoPeople is whether it can effectively raise grant money to progress further with its mission of democratizing higher education.

After sustainability, the next major hurdles are simply delivering online education and building up student recruitment. In addition to the basic challenge of delivering online education, there is the matter of reaching students in parts of the world where there is simply a lack of technology infrastructure. UoPeople's offerings do not require audio or video capability, which makes the course materials more accessible to students living in areas without ubiquitous Internet access or broadband network capacity. And, even when sufficient infrastructure exists, not everyone in the world has convenient access to the Internet. UoPeople is addressing this problem by establishing local student-computing centers. As previously mentioned, the university has already launched pilot computing centers in Haiti as part of a dedicated project there, and it has plans for similar centers in other locations, including Bangladesh, the Dominican Republic, Liberia, Palestine, and Zimbabwe—all areas where technology infrastructure is lacking. Regarding student recruitment, UoPeople also will be working with local NGOs to better reach those students who otherwise wouldn't know that a tuition-free option exists for them.

Another challenge for distance learning or online programs is the issue of

credentialing and accreditation. While many students study just for knowledge and self-improvement, accreditation is highly important for the future job prospects of graduates. At the present time, UoPeople offers associate's (AS) and bachelor's (BS) degrees in the areas of computer science and business administration, but is careful to inform students that the university is not accredited. The university is working on becoming accredited by the U.S. Department of Education, but the university cannot promise when, or if, its programs will be accredited.

One of the biggest challenges facing online education is establishing the model as equivalent to—possibly even superior to—more traditional forms of education. A 2010 [meta-analysis](#) done by the U.S. Department of Education found that students who had all or part of their educational courses delivered online performed better, on average, than those taking the same courses in a physical classroom environment. Other studies support this claim as well. As a result, online education is gaining acceptance, but the continuing challenge, perhaps, is in getting society—educators, students, accrediting bodies, etc.—to understand that online education is not something “less than” a traditional education; nor is it just a low-cost alternative to the “real thing.” Rather, the focus should be on the possibilities for new and effective models of teaching and learning, including models of peer-to-peer learning, where students learn collectively and where there is less reliance on the all-knowing teacher imparting a one-way flow of information to the class. These new online delivery formats and more creative and interactive models—where the line is blurred between student and teacher—can have a positive effect on the learning experience.

Replicability by Other Institutions and Programs

Universities need to be designed with both the global and the local sphere in mind, in order to widen participation and dialogue.

—Shai Reshef

Individual parts of the education delivery model employed by UoPeople (i.e., peer-to-peer learning using open educational resources and open source technology) are already being used to varying degrees in multiple settings as part of the ongoing evolution of education. However, UoPeople hopes to scale in such a way as to reach underserved markets in a cost-efficient and effective way and, in so doing, serve as an all-encompassing example for others to follow worldwide. One of UoPeople's main goals is for its model to be used and replicated in other educational settings, such as by NGOs or by governments

anywhere in the world that provide higher education. UoPeople is eager to share its model as a way of reaching greater numbers of students who have the desire and motivation to be educated but whose personal, geographical, or financial circumstances make it difficult or impossible for them to do so. By sharing its model, UoPeople's ultimate mission of democratizing higher education access globally will have a better chance of realization.

Conclusion

[For] a man who comes from a poor country, UoPeople represents a dream that allows me to reach my goal of completing a bachelor's program. I consider UoPeople my global family in this global world.
—Valery, a UoPeople student from Haiti

The University of the People's mission is the promotion of higher education as a way of promoting peace around the world. In a higher education landscape that's in the midst of change and uncertainty, the University of the People offers great promise for students who have limited access to postsecondary education. UoPeople is demonstrating that quality higher education opportunities can be made available to people all over the world—and at a lower cost—thus helping individuals expand their potential, achieve their dreams, and work toward economic stability for themselves and their community. Furthermore, it provides universities and governments alike a model to look toward, and hopefully adopt, for democratizing access to higher education globally. As Professor Jack Balkin of Yale University, one of UoPeople's advisors, pointedly observes, "Harnessing new technologies to deliver low-cost education to people around the world is a daring venture. It is the kind of experiment that everyone should want to succeed."

Notes

1. UNESCO Institute for Statistics, *Global Education Digest 2010: Comparing Education Statistics Across the World*, Table 8.
2. Interuniversity Institute for Research and Development, *The Challenge for Haitian Higher Education: A Post-Earthquake Assessment of Higher Education Institutions in the Port-Au-Prince Metropolitan Area* (March 2010).
3. The Education Trust, *Priced Out: How the Wrong Financial-Aid Policies Hurt Low-Income Students* (2011).
4. UIS Fact Sheet, *Trends in Tertiary Education: Sub-Saharan Africa* (2010).

5. L. Lochner, "Non-Production Benefits of Education: Crime, Health, and Good Citizenship" (NBER Working Paper No. 16722, issued January 2011).

Shai Reshef is Founder and President, University of the People (UoPeople)—the world's first tuition-free, nonprofit, online academic institution dedicated to the democratization of higher education. Reshef has 20 years' experience in international education and has been recognized on behalf of UoPeople for opening access to education. He holds an M.A. from University of Michigan.

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