

How Low Can You Go? The Tuition-Free Business Model of the University of the People

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Abstract

This paper presents the recent emergence of organizations that offer tuition-free academic education by leveraging various online tools. The feasibility of such offers is analyzed by exploring a variable cost minimization (VCM) approach created by the California-based nonprofit The University of the People (UoPeople). This approach cuts undergraduate tuition to US\$4,000 or less per program, by replacing instructors with peer-to-peer learning processes, and by charging students only for admissions and for examination. An analysis of the VCM approach as implemented by UoPeople shows that it fails on two fronts. Firstly, it is based on an unsubstantiated assertion that peer-to-peer learning can replace, altogether, the need for a skilled and trained online instructor. Secondly, even if it is possible for some students to teach themselves without the involvement of an instructor, an economic analysis shows that the cost of instruction is only one of several line items in the budget of an accredited online academic program. Academic programs that remove critical variable cost services such as teaching and student advising, fail students by neglecting to provide them with the minimal support they are entitled to. The risks, as well as the significant promise of the VCM approach are discussed.

Keywords: online education, tuition-free, business model, open education, variable cost minimization.

Introduction

Online academic education is entering the mainstream, and is equivalent in quality to traditional formats of academic education (Mayadas, Bourne, & Bacsich, 2009). A recent meta-analysis published by the US Department of Education (2009) concluded that, on average, students in online learning conditions performed *better* than those receiving face-to-face instruction. The success of online academic education is a consequence of more than two decades of extensive experimentation fueled by the economics of disruptive innovation (Christensen, Anthony, & Roth, 2004). This experimentation led to the emergence of a myriad of new business models and organizational models in online higher education (Collis, 2002; Hanna, 1998).

One of the main challenges these models try to tackle is the constantly increasing costs of higher education (e.g. Johnstone, 2004). One interesting trend related to the maturation of online academic education is the rise of OpenCourseWare (OCW), and of the Open Educational Resources movement (Abelson, 2008). These initiatives originate in MIT's 2001 decision to provide free online access to the university's entire curriculum. Today, hundreds of universities from around the world provide free access to recorded lectures, lesson plans, textbooks, and other extensive learning resources (Downes, 2007). While the providers of OCW emphasize that these materials cannot replace an academic program, movements such as *Edupunk* and *Libre*

Learning are attempting to leverage these materials and other web 2.0 technologies and create new forms of learning (Laurie, 2008; Tucker, 2007). Similarly, we witness the recent emergence of several organizations that leverage online technologies to offer tuition-free academic education. These include Peer2Peer University (Young, 2009), Tech University of America (Gonzales, 2009), University of the People (Parry, 2009) and Andrew Jackson University (<http://www.aju.edu/>). The concept of tuition-free higher education is not a new one, and students who wish to study tuition free in traditional universities are able to do so today in many countries (Damast, 2007; Weiler, 2000). What is the reality behind this new wave of organizations promising free academic education for all?

The announcement of “The University of the People” (UoPeople) in a New York Times article in early 2009 was followed by an unprecedented level of media attention (e.g. Abdulrahim, 2009; Fast Company, 2009; Rollet, 2009). Following this spike in public interest in tuition-free higher education, this paper explores the promise of free academic education for all by analyzing the business model of the UoPeople. The analysis reveals a model of minimizing variable costs to the cost of examining students. The paper presents this variable cost minimization (VCM) model as implemented by UoPeople, and examines the risks and opportunities associated with it.

Method

The analysis of the UoPeople's CVM model was based on information about the UoPeople project collected from the organization's website (www.uofpeople.org), and the media reports in its News section. The analysis was performed on the September 7, 2009 version of the UoPeople website. The author tried to resolve any discrepancies and inconsistencies within the website, or between the website and media reports. These data were then used to perform two analyses: a literature-based (theoretical) analysis of the pedagogical model, and an empirical analysis of the financial model. The financial model analysis was performed by comparing the UoPeople financial model to the financial model of a publicly traded online university. Since only fragmentary information about these business models is published, the analysis included several additional sources, including a "how-to" book on online academic teaching, and media reports. The analysis led to an estimate of the weight of faculty pay in the cost structure of the UoPeople, as well as to a list of the other variable-cost line items that are not included in the UoPeople's offering.

Results and Discussion

The University of the People

The UoPeople presents itself as the world's first tuition-free, online academic institution dedicated to the global advancement and democratization of higher education. It offers programs in business administration and in computer science, similar in scope to associate and bachelor's degrees. The university is not accredited, but it plans to apply for accreditation. Applicants to the programs are required to sign detailed disclaimers that describe the uncertainty regarding the UoPeople's future, and its lack of accreditation and of recognition.

Terms open five times a year, last about two months, and include a week long exam period. No further information is provided as to the method of examination. Students are grouped into sub-groups of 15-20 students, and are expected to employ peer-learning in a study forum. A volunteer instructor facilitates learning by monitoring student portfolios and course forums and providing access to resources. Students are expected to devote at least eight hours a week to study, and to abide by the "anti-cheating" [*sic*] policy. Details of the policy are not known. At

present the university requires no payment of any fees. It plans to charge an application fee of US\$15-50, and an exam processing fee of US\$10-100 per course. Fees depend on the standard of living in each student's country of residence. It is stated that "The cost of a University of the People program track will be only a fraction of the cost of a comparable degree from a public university, even for students who live in countries with a high standard of living". The payment by students who will take 40 courses will thus be between slightly above US\$400 and slightly above US\$4,000. The UoPeople solicits contributions of money and of time to support the project. The project is estimated to require a total investment of US\$6 million and 15,000 students in order to become self-sustaining.

The University's Pedagogic Model Analysis

The most prominent variable cost the UoPeople removes is the cost of teaching faculty. Their teaching is replaced by peer-to-peer technologies. Can this model be justified? Academic faculty in online classrooms are compensated to moderate discussions in the online classrooms, to answer questions, to provide feedback on student assignments, and to examine and grade student work throughout the course. Peer-to-peer interaction is a powerful element in online education, but only if the interaction is meaningful (Woo & Reeves, 2007). A critical element in achieving this meaningful interaction is the intervention of expert teachers (Guri-Rosenblit, 2009). Studies that show the extensive potential of online academic education have always been based on instructor-led online education, and these instructors are required to spend a lot of time teaching (Cavanaugh, 2005). Without an expert instructor to moderate and grade the discussion, peer-to-peer interaction can rapidly deteriorate to anecdotal chatter (e.g. see Potter, 2008). The assumption that online education enables the elimination of the instructor from the equation, or the delegation of academic faculty duties to others who are not trained as academic faculty, expresses a deep misconception of what makes online academic programs successful.

The University's Business Model Analysis

Even if it were possible to eliminate the variable costs of teaching, what other services are not provided under the UoPeople's extreme VCM model? Let's examine the key expense items in the operation of an online venture such as UoPeople. The costing of networked learning is complex (Rumble, 2001). A good source of guidance for the costs an operation like UoPeople incurs is financial reports of for-profit universities such as the University of Phoenix. Such universities focus on the provision of academic education and have minimal research facilities. According to the most recent annual financial filing by the University of Phoenix (UoP) (Apollo Group, 2008), their expenses are: instructional costs and services (43.6% of income), selling and promotional costs (25.6% of income) and, general and administrative (6.9% of income). Faculty pay varies significantly between universities, but it is reasonable to offer an adjunct instructor who teaches an undergraduate level course at an accredited online university US\$1,500-2,500 (Anonymous, 2003; Babb & Mirabella, 2007). This brings the total cost of faculty pay for one student's full program at the UoPeople to approximately US\$3,000-5,000, or approximately US\$1,000 per year for a 4-year undergraduate degree (based on the UoPeople's average class size of 20 students, and 40 courses per program). Although the breakdown of the "instructional costs and services" is not provided in the Apollo Group's financial filings, given that one undergraduate credit hour at The UoP costs more than \$US500 (University of Phoenix, 2009), it is reasonable to estimate that US\$1,000 is only a quarter to a third of the 43.6% of annual income per undergraduate student that are the instructional costs and services. If we assume that a nearly zero-tuition program requires only a modest investment in sales and marketing, what other services are significant variable costs? These include admissions guidance, student advising, student administration, library services, IT helpdesk, quality assurance, and some of the general and administrative costs. Table 1 and appendix 1 detail these services and their

importance. Figure 1 details which costs are funded, eliminated, or are unfunded by the UoPeople's extreme VCM model.

Discussion

This paper set out to explore the promise of free academic education for all. The general premise of the VCM approach as implemented by the UoPeople is that by leveraging peer-to-peer learning technologies, it is possible to remove the cost of instruction, and charge students only for examination costs. An analysis of this business model shows that the premise is supported neither pedagogically nor economically. Pedagogically, there is no empirical support for the claim that peer-to-peer learning can replace trained instructors, and there are ample empirical findings that describe the critical role of the instructor in building knowledge and keeping students motivated. Peer-to-peer tools, when implemented effectively, can enhance the learning experience, as well as make the instructor's work more effective. For a small percentage of the population who are highly motivated autodidacts it might even suffice. Nevertheless, there is no evidence that a successful academic program can sustain itself solely by students teaching each other: "And if the blind lead the blind, both shall fall into the ditch." (Matthew 15:14). Economically, we see that an online academic program incurs many costs in addition to teaching and examination. Some of the costs, such as content development, are fixed costs, and their impact lessens when the operation scales up. Other costs are variable costs such as admissions advising, student advising, student administration and help desk. Without these services, an organization might help students study, but it cannot fulfill the many important roles of a university.

Table 1. Important variable costs in online academic programs

Service	Brief description	Importance
Admissions advisors	Advise candidates interested in applying for the program	Prevent unprepared students from joining and failing, and assist competent candidates to apply
Student advising	Support students from first moment in program, and throughout	Improves student retention (See five-stage model, Salmon, 2003)
Student administration	Assigning students to classes, tracking student grades and progress, and other administrative tasks	Maintains the smooth operation of an online program
Academic library services	Online subscriptions to periodicals, and provision of online learning resources. Training and assisting student in using academic library.	Essential component of every academic program
IT infrastructure and services	Hardware, bandwidth and personnel to provide learning management system, learning platform, helpdesk, and traditional IT services.	It is impossible to run an online program without an effective IT infrastructure, and helpdesk to serve staff and students
Quality assurance	Establishment of academic quality and academic integrity standards, and evaluation of adherence to standards.	Without quality assurance, standards deteriorate, especially in an innovative program.
General and administrative	Costs of record keeping, student financial transactions, administration, and academic management	A required cost without which no organization can maintain activity and no money can be charged from students or paid to suppliers and employees.

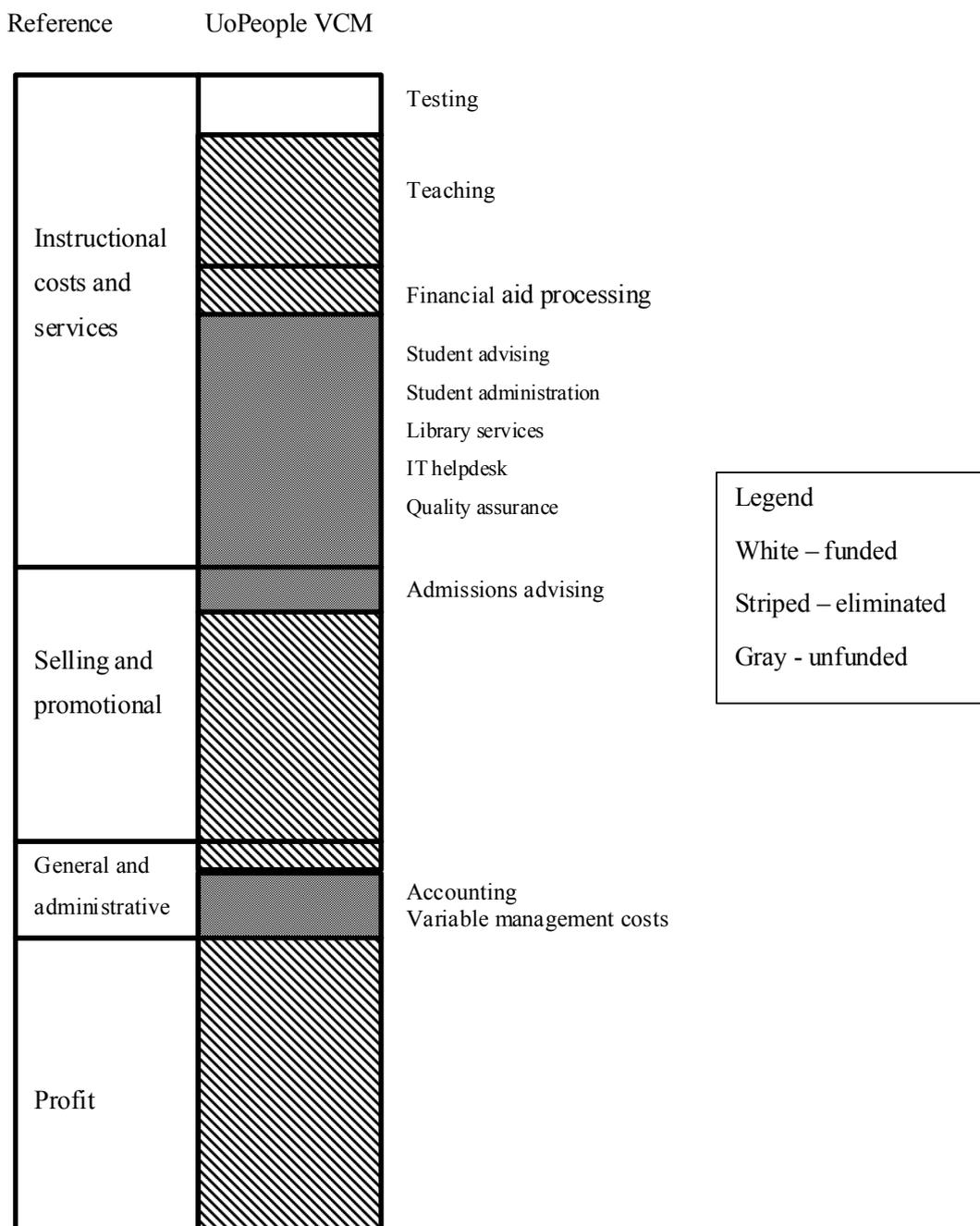


Figure 1. A Comparison of costs: reference online university, and UoPeople's extreme VCM model

VCM and Open Education

The outcome of this double failure deserves special attention by advocates of open education. A nearly zero-tuition program that targets low socio-economic groups in developing and developed countries, will catch the attention of some of the most vulnerable student populations. Such students might be attracted by the promise of free academic education, and join the program. But these students are also very likely to require the services that the extreme VCM approach eliminates: student support and advising, helpdesk, and detailed feedback from an experienced instructor who follows the student's progress. Providing such needy populations with a program in which critical variable cost services have been stripped down to almost zero

is possibly worse than not providing them with anything, since it sets these students to failure. It is misleading to present Western higher education as nothing more than a system to assist students to pass examinations. Building an IT infrastructure with some volunteerism thrown in, and relying on a single final exam to measure the success of the whole educational process is not a substitute to real higher education.

Despite the critical conclusion of this paper, the critique is of the extreme manner in which the VCM model was implemented in the case of the UoPeople, and not of VCM. The analysis performed here reveals that the quality of education that can be provided by the UoPeople's current model is insufficient. Nevertheless, the analysis also points to the significant fraction of the costs that provide no direct educational value to the student: marketing and sales, and financial aid processing, both of which consume a very significant portion of tuition income. Efforts should be directed at exploring how affordable online academic education can be delivered without removing the most critical element, the input of professionally trained instructors and advisers.

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Appendix 1: Important Variable Costs in Online Academic Programs

Admissions advisers who advise potential candidates in a zero-tuition program need to spend significantly less time than traditional advisers on assisting students with finding funding for the program. On the other hand, since tuition also serves as a tool for student self-selection, by forcing students to carefully consider the investment of money they are required to make, admissions advisers at zero-tuition institutions need to spend a significant amount of time with each potential candidate in order to assess their readiness for the program, academically, as well as in regards to their IT skills, access to IT, and, for students from non English speaking countries, their language skills. This guidance will prevent students who are not ready for online academic education of the nature offered by the institution from entering the program and experiencing failure. It will also identify and encourage candidates who have good potential to succeed.

Student advising is an important element in every academic program, but its importance in online programs is critical. Providing the student with a single point of contact to turn to in time of need is a critical success factor, especially in the earlier stages of the program (See 5-stage model, Salmon, 2003), as well as when choosing courses or making any of the dozens of small decisions every student makes in the course of their studies. It is reasonable to estimate that for every several hundred students, a full time student advisor needs to be employed.

Student administration is a mundane though critical variable cost service that is at the heart of the smooth operation of any academic program, including online programs. Assigning students to the correct classrooms, and tracking student grades and progress are just a few of the many roles of student administration.

Academic library services are an important component in an academic education, and although some library resources are freely available online, they are not a sufficient replacement for an academic library. Library costs comprise a fixed cost, and a variable cost. The variable cost includes the cost of online subscriptions, which is dependent on organizational size, and the cost of library personnel who provide students with training and personal assistance.

In regards to **IT infrastructure**, a zero-tuition VCM oriented organization will probably do best to leverage the abundance of open source software to provide the students with learning management software that does not carry per-capita licensing fees. Nevertheless, the cost of software licenses is only a fraction of the total cost of operation of an IT system. To that is added the cost of personnel to support the system, and, most importantly, to provide helpdesk services to students around the world who might encounter difficulties logging into the system, or operating some of the features.

Quality assurance is a critical element in any academic program, and innovative groundbreaking programs like the zero-tuition programs discussed here require an even higher investment in quality assurance. Without the establishment of clear QA procedures, and an investment in the collection and analysis of data from students, there will be no way to verify the quality of student learning, and the integrity of the examination system. A peer-to-peer oriented program with no strict mechanisms to teach and to ensure academic integrity has little chance of succeeding. Effective quality assurance requires the collection of quantitative and qualitative data from students and staff, and most of it is a variable cost.

General and administrative costs are also an important component of any organization, and although it is usually considered a fixed cost, an organization that plans to move from a few hundred students to 15,000 students from around the world, will incur significant variable costs required to administer the academic activities and the financial transactions of the students.