

iLearn: A SOCIAL ENTERPRISE MODEL FOR
REVOLUTIONIZING HIGHER EDUCATION AND
TRANSFORMING THE DEVELOPING WORLD



A White Paper by

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For nearly a century, a college degree has been seen as the key to moving up the economic ladder in the United States. Study after study demonstrated that degree holders earned higher salaries and saw more rapid income growth over the course of their working lives. American universities clearly understood this value proposition by the late 70s and began raising their tuition accordingly. For nearly three decades tuition increases substantially faster than the rate of inflation in the US making it increasingly difficult for working and middle class families to afford a university education for their children without incurring massive debt. With the collapse of credit markets last fall, many families are finding it difficult or even impossible to cover the cost of college tuition.

In developing countries, cost is but one barrier to the higher education system. While many governments subsidize university fees, the formal and informal costs associated with university attendance put it out of reach of many qualified young people. Access is another key constraint and has several dimensions. First, most developing countries lack a sufficient number of university seats to meet present or projected demand. Researchers estimate that demand for higher education in Asia and Africa will grow from 48 million enrollments in 1990 to 159 million enrollments in 2025.¹ Thus, even the most aggressive efforts to expand public and private higher education through bricks-and-mortar institutions are unlikely to meet future demand. Even when university seats are available, they are often situated in major cities where high costs of living and distance put university out of reach of many rural and lower-income students.

The inability of developing countries to meet the demand for quality higher education has a direct impact on economic growth. Researchers at Harvard University estimate that a one-year increase in higher education stock raise per capita incomes by 3% after five years.² To put this figure in perspective, it is estimated that the impact of the HIV/AIDS pandemic results in a loss of 1.5% of GDP per annum.³ Thus, from a development perspective appears that improving access to higher education is one of the best investments that donor agencies, foundations and governments can make.

What if it were possible to nearly double the number of university seats in a developing country overnight and with relatively little investment from the public sector? What effect would that have on economic growth rates in Africa and Asia? Equally as important, what impact would it have on the millions of qualified students around the world who are unable to undertake a university education not because of a lack of ability, but because of a lack of access and opportunity?

This White Paper briefly outlines how the combination of new, low-cost technologies and innovative business models can dramatically increase access to higher education in developing countries and, in turn, have a transformative effect on their economic and social development. The paper proposes a new concept with the working title of iLearn⁴ that is meant to leverage technology, business models and sustainable development strategies to revolutionize higher education access and quality in the developing world.

Online Learning: A Leapfrogging Opportunity for Developing Countries

Internet-enabled learning (online learning) has been in existence since the earliest days of the Internet. In the last half-decade e-learning has come into its own and is now broadly accepted, by both educators and students alike, as a useful and convenient means for accessing education opportunities. The success of institutions, such as the Open University in the UK and the University of Phoenix in US demonstrates that there is a high level of demand for online learning in developed countries and increasing acceptance in the job market for the credentials these institutions confer. This acceptance is increased further by integration and par-

¹ "E-Learning in Asia: Supply and Demand," Alan Olsen, International Higher Education, Winter 2003.

² "Higher Education and Economic Development

³ The Macro-economic impact of HIV/Aids under alternative intervention scenarios (with specific reference to ART) on the South African economy'

⁴ iLearn is simply a working title. If this concept advances further another name will need to be identified as this name is already copyrighted.

ticipation of major employers in the design of curricula to ensure that graduates have the skills and knowledge needed in today's workplace.⁵

In developing countries, while Open University and others have made some inroads, true online learning has yet to catch on as a mainstream solution in the higher education space primarily because of technology and infrastructure constraints, which limit the ability of either existing or new higher educational institutions to leverage online learning opportunities.

Concerns about quality are another constraint. Many educators and policy makers, in both developed and developing countries, are skeptical about the quality of educational outcomes from online learning programs, citing the lack of face-to-face interaction and classroom give-and-take. It is only natural to ask whether online learning is a 'second best' solution that will not give graduates the knowledge and skills they need to achieve in their future careers. Worse still, some online institutions appear to be 'degree mills' where students receive a credential, but little substantive learning takes place.

These quality concerns, while understandable in the face of new technologies, appear largely unfounded. A recent US Department of Education meta-study of 51 studies on online learning outcomes found that "Students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face learning."⁶ The Sloan Consortium, which promotes online learning quality, published a survey of on-line and traditional classroom courses and found that online students demonstrated a significantly higher level of engagement in the learning process than their classroom counterparts.⁷ Thus, the empirical evidence suggests that online learning offers an equal or better educational outcome for students when compared with traditional classroom based learning techniques.

Online learning may also offer education policymakers in developing countries another benefit as well: more consistent quality. While some state universities may deliver consistent quality education, newer private universities often suffer from significant quality problems, weakening the overall level of the pool of graduates.⁸ The proliferation of these private universities makes quality control for Ministries of Education extremely problematic. An online learning environment can address the variability issue because coursework can be delivered on a single platform, greatly simplifying the process of ensuring quality instruction.

Lastly, because online learning does not rely on the construction of bricks-and-mortar institutions and the costs associated with expanding to meet greater student demand are extremely incremental, it is possible for developing countries to greatly expand their pool of undergraduate students rapidly without investing enormous sums. The combination of consistent instructional quality and comparatively low upfront investment means that online learning has the potential to be a leapfrogging opportunity where developing countries can simply skip over the enormous investment in large numbers of traditional universities and still reap the development benefits that increased access to higher education provides.

Overcoming the Infrastructure Gap: Low Cost Technology and Broadband Connectivity

Historically, there have been significant constraints for the poor to access the Internet in developing countries. PC prices have been a major constraint for the poor to access the Internet. Quite simply, when PCs were \$1000-\$1200 they were simply out of reach for all but the wealthiest individuals in developing countries and even icafes had to charge comparatively high prices to cover their capex on PCs. With the emer-

⁵ "The Engineering Gap," The Economist, January 28, 2010.

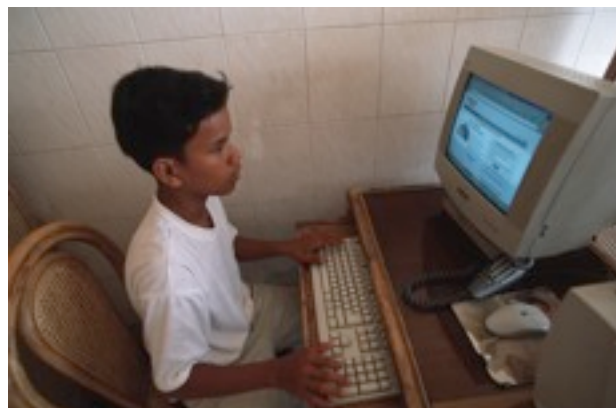
⁶ "Evaluation of Evidence-based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies," US Department of Education, 2009.

⁷ 2008 National Survey of Student Engagement (NSSE), Sloan Consortium.

⁸ "The Impact of Globalization on Higher Education in China and Vietnam: Policies and Practices," 2008, Simon Fraser University, Canada.

gence of low-cost PCs in the sub-\$250 range, however, home ownership of PCs is sky-rocketing in urban areas of developing countries. Even in poorer rural areas, the lower price point means that icafes and tele-centers have been able to reduce their prices dramatically in the last several years. The same trend is now underway with 3G-enabled smart phones in developing countries, where 3G handset prices are declining to the point where widespread uptake is now taking place.

A second constraint is also power requirements. Previous generation PCs and their associated peripherals consumed a considerable amount of electricity – adding substantially to costs in on-grid applications and making off-grid usage problematic – a major challenge for rural applications. The emergence of the Intel Atom processor and more efficient LCD monitors means that it is now economically viable to operate a PC off-grid in developing countries, using a solar mat or other renewable power source. Companies such as Inveno are now offering low-cost off-grid PC solutions that radically lower both capex and opex costs.



Ideally, online learning should occur in a broadband environment where students can download and utilize a variety of materials including pdfs, videos and interactive tutorials. Until recently, broadband access in most of the developing world has been limited to urban areas and businesses. The emergence of low-cost connectivity, including ADSL and wireless technologies including Wi-Max and 3G, along with the proliferation of fiber-optic backhaul throughout Asia and now in Africa, means that broadband prices in the developing world are plummeting. For example, in Sri Lanka, our company found that consumers were paying roughly \$2/hour in rural areas for dial-up Internet access at icafes in 2006. With the introduction of 3G and Wi-Max in rural Sri Lanka in mid-2007, prices declined to .37/hour for up to 1MBps at Easy Seva Centers – a massive drop in price with a geometric increase in bandwidth.⁹ At that price point, shared broadband access becomes affordable to all but the poorest of the poor in developing countries. Moreover, as more developing countries adopt effective universal service cross-industry subsidies, carriers will have ever greater incentive to push network build-out into rural areas previously unreachable.

The emergence of these low-cost technologies and rapid network build out means that the principal barrier to effective online education in developing countries, ie affordable access to broadband, is diminishing rapidly.

Disruptive Business Models

In his groundbreaking book *Disrupting Class*, Harvard's Clayton Christensen describes how online learning will transform education in the US by creating a student-centric learning model that allows greater opportunity for private sector companies and non-profits to deliver quality educational services. Capitalizing on skyrocketing tuition costs and stagnating salaries of undergraduates, companies such as Straighterline.com have developed new, disruptive models that offer the potential to offer students a more user-friendly and affordable higher education experience. Straighterline.com uses a subscription-based tuition model that allows students to take as many courses as they would like for as low as \$99/month. Students take accredited online general education courses and are supported by a 24/7 instructor support – meaning that working students and parents can fit their studies around their schedule, rather than making their schedule fit the needs of a traditional college course offered at set times in a fixed location. Straighterline.com allows students to get most of their first two years of coursework out of the way before matriculating to a traditional

⁹ Data from USAID Last Mile Initiative Project, implemented by SSG from 2006-08.

university to complete their Bachelors. Coursework at Straighterline.com is accredited through a series of regional colleges in the US.

In addition to new ways to deliver education services, disruptive business models are impacting the delivery of telecommunications services in rural areas in developing countries. The combination of low-cost connectivity and low-cost equipment is enabling the delivering of high-quality broadband enabled services at prices that consumers at the Base of the Pyramid (BoP)¹⁰ can afford. SSG's Easy Seva micro-franchised telecenter model enabled 10,000 rural Sri Lankans to access broadband connectivity each month at a price of .37/hour for up to 1Mbps speeds and with a quality customer experience not typically seen in rural communities in developing countries. By combining low-cost technologies with an innovative business model, Easy Seva demonstrated that shared access can be delivered in a sustainable manner in Base of the Pyramid communities.

The combination of a subscription-based online learning service and a franchise-based shared access network offers the prospect of vastly increasing access to quality higher education services for the tens of millions of under-served students in developing countries.

iLearn: A Vision for Meeting the Flood of Demand for Higher Education in Developing Countries

The emergence of disruptive business models and low-cost technology presents a unique opportunity for the private sector and development community to join forces and have a transformational impact on development. SSG proposes a revolutionary approach to improving higher education access and outcomes in developing countries that builds upon these emerging trends and applies them in developing countries. Tentatively called iLearn, it is envisioned as a social enterprise that incorporates an entrepreneurial business model with a compelling social mission.

The iLearn concept consists of several elements:

- On-line Learning and Content/Services Platform.
- Subscription-based Tuition Model
- Franchised-based Shared Access Learning and Service Centers.

iLearn will target two types of customers in developing countries:

- **English-Capable** students looking to attend an undergraduate university program in an English-speaking country, but want to reduce their amount of study time in-country or demonstrate to those institutions that they are capable of successfully completing accredited coursework. These students will be delivered US-accredited courses in English. Here, the idea would be to simply partner with an existing firm, community college or university to support the delivery of their growing body of online coursework. iLearn will enter into a revenue sharing agreement with the partner organization. In addition to coursework delivery, iLearn can leverage US university relationships to facilitate and expedite iLearn students wishing to study in the US. Lastly, iLearn can leverage open-source textbook resources such as the Community College Consortium for Open Educational Resources to ensure that students have access to high-quality English-language textbooks at a highly affordable price point.¹¹
- **Mainstream** students who cannot either afford or gain access to higher education institutions in their home country. These students will be delivered nationally-accredited courses, primarily in their native language. As in the case of Straighterline.com, it may make sense to focus on the pro-

¹⁰ Base of the Pyramid refers to the roughly 4 billion consumers earning less than \$10/day in the developing world.

¹¹ The CCCOER currently has over 400 open-source (or creative commons) textbooks approved for used by community colleges in California.

vision of general education courses at the outset. Generally taken in the first two years of a university education, these are courses for which demand is high and standardized curricula are readily available. Students can then complete their degrees at traditional accredited universities in their home countries.

iLearn Learning and Content/Services Platform

The core of the iLearn business model will be an online learning and content/service platform. The online learning portion of the platform can simply be an off-the-shelf service such as Blackboard, Agilix or others. The services portion of the content/service platform would be tailored to enable the delivery of compelling broadband-enabled content and services through a network for franchised iLearn Centers (see below).

iLearn students will receive responsive instructional support and guidance from a 24/7 iLearn instructors network, which will be staffed by certified instructors providing real-time feedback (via discussion boards, chat, e-mail and voice). This will provide iLearn customers with the interactivity required to maximize the learning experience. For English-capable students, this service will be offered globally in English. For Mainstream students, iLearn will establish a national-level iLearn Instructors' Network as it enters a new market. This iLearn instructor's network will provide students with 24/7 instructional support in local languages.

iLearn content will also be delivered to mobile handsets, particularly as 3G networks proliferate and the costs of so-called smart phones declines. In this case, the 3G handset can be viewed as a supplement to the shared-access iLearn Center (or a home-based PC or Netbook), providing students with an opportunity to participate in classroom discussions and listen/watch lectures while outside of the center. Apple's iTunes University offers a glimpse of what this model looks like where lectures and video can be pushed to the handset to compliment PC-enabled instruction. Simple apps can be used facilitate participation in classroom discussion. In addition to 3G applications, low-capacity traditional GSM networks can also offer basic information regarding course announcements, scoring, etc using existing SMS and MMS platforms. Regardless of the platform, the goal is the same: to deliver quality educational content in an affordable and accessible manner.

Initially, it is envisioned that iLearn will focus on general education requirements in higher education – simply because this is where demand appears greatest and the opportunities for standardization of curricula are the highest. By focusing on general education requirements, iLearn will ensure consistently high-quality of instruction and support. Since iLearn will not be a degree-conferring institution, it will serve as a supplement to the traditional university system and not as a direct competitor. This is critical as iLearn must avoid any resemblance to the 'degree mills' that have proliferated around the world.

Subscription-based Tuition Model

A key element of the iLearn social enterprise will be the use of a subscription-based tuition model. Why? A subscription-based model, with its monthly payments encourages students to maximize their utilization of the platform and the predictability of payments means that families can plan their finances accordingly. Subscription-based business models have been demonstrated to be highly effective in base of the pyramid markets.¹² Further, as Burke Smith, CEO of Straighterline.com points out, a subscription-based model reduces risk for both the provider and the student, "It is a win-win for both students and educators alike."

At this stage it is envisioned that iLearn will operate in developing countries using either a distributor-type relationship or joint venture structure with a local company or university that possesses the contacts and expertise to handle and maintain host-country accreditation processes. From a business operations standpoint, the subscription model also makes sense in developing countries as payment amounts and collection dates can be highly standardized, greatly simplifying payment processing systems and minimizing oppor-

¹² "Designing for the Base of the Pyramid," Design Management Review, Fall 2004.

tunities for fraud or diversion of revenue – all significant business operations issues in many developing countries.

Franchise-based Access Model

In developing countries, particularly outside major urban centers, it is unlikely that many higher education students will be able to afford even low-cost PCs and broadband connections for home use for some time to come. Therefore, any e-learning enterprise will need to provide some form of shared access center in rural communities and lower income groups. Here, SSG's experience developing and deploying the Easy Seva micro-franchise in Sri Lanka demonstrates that micro-franchising of icafes and telecenters is a sustainable business model for promoting shared broadband access in Base of the Pyramid markets.

In this case, the idea would be to establish a network of independently owned and operated e-learning centers, primarily in peri-urban and rural areas of a developing country. These centers would provide students with the access required for their coursework, collect payments and serve as a distribution point for course materials. Franchisees will share in a portion of the monthly subscription revenue from students utilizing the center. Franchise fees will go towards offering 24/7 tech support, marketing support, business training, preferred pricing for equipment and connectivity, etc – in short all the ingredients a community entrepreneur needs to succeed as an iLearn center owner. This support will be provided through the iLearn distributor or JV partner in the host-country.

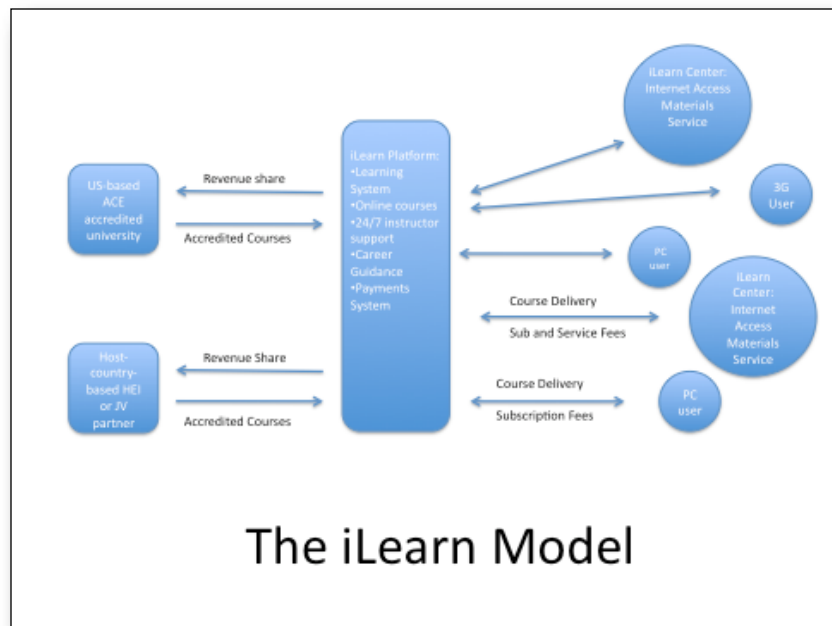
In addition to providing facilities for accessing the iLearn coursework, these franchise centers can also offer value-added services to the local community, such computer training, printing, financial services, mobile top-up, Internet access, etc. This not only increases income for the franchise center owner, it provides iLearn with greater exposure through the foot traffic the other services generate. Again, imagine Sylvan Learning Centers meets Kinkos in a rural town that previously had been completely underserved in both the education and telecommunications space.

In some cases the franchise iLearn center owner might be an entrepreneur; in other cases it might be a school or community-based organization. In either case, the center will provide the community with an immediate income-generating opportunity.

Because the centers are individually owned and operated, iLearn itself can focus most of its efforts on delivering quality education content, while the franchise operator takes responsibility for providing the connectivity and equipment in the community.

iLearn: Potential to Transform Access to Higher Education in Developing Countries

The beauty of the iLearn model is that it can greatly increase access to higher education without placing substantial burdens on existing higher education infrastructure. Unlike traditional universities, the costs



associated with expanding to meet growing demand are minor and incremental: there are no new buildings to construct, no dormitories etc. With its rapidly scaleable business model, iLearn will rapidly grow the number of university seats in developing countries - adding substantially to long-run GDP growth and improvement in human development indicators. With its low price point and widespread availability, iLearn has the additional benefit of dramatically improving equity in education access – addressing a growing political concern in many countries.

In addition to contributing directly to socio-economic development, the iLearn model has the potential to increase access among portions of the population that have been historically under-represented in higher education in developing countries, namely rural and lower income youth. These students are often unable to access higher education because even when a country subsidizes university fees, living costs in major urban centers (where most universities are located) is beyond the reach of most rural families. iLearn can provide these students access to higher education while they continue to live at home and contribute to family farming or income generating activities.

The iLearn model also represents a significant business opportunity. At the international level, the enormous market, ease of scalability and enormous social returns make iLearn an attractive social venture investment, whether by private investors, foundations or donor agencies willing to provide patient capital in the pursuit of blended returns. At the developing country level, the iLearn model represents a substantial business opportunity for private investors and telecommunications carriers interested in tapping into the enormous demand for quality education in the developing world. At the community level, iLearn franchise operators also have a substantial business opportunity to tap into latent demand in their community for education and telecommunications services.

Launch Markets

SSG has identified Vietnam and Indonesia as key launch markets, where there is both tremendous demand for higher education access and government officials have demonstrated an interest in innovative delivery models to meet that sky-rocketing demand. Elsewhere in Asia, India also represents a potentially huge under-served market. In Africa, countries such as Kenya, Uganda and Nigeria may offer significant market opportunities, particularly now that undersea fiber optic cables are expected to dramatically reduce broadband costs across the African continent.

Next Steps

SSG is working with both potential partners (both public and private) to further develop the iLearn concept with the goal of conducting a formal market assessment in 2010.