LATAM COLAB

Business Plan Proposal

Abstract

The following document proposes a business plan for the creation and design of a STEM oriented post-graduate program to be launched in collaboration with major U.S. universities.

Akiba Covitz
akiba.covitz@gmail.com
Lisa Lee
lisa_lee@mail.harvard.edu

Research Assistance Provided By:

Joaquin Bozzano, Ministry of Public Health
Lorena Bustamante, Educational Research Specialist
Santiago Ferrari, Inter-American Development Bank
Samuel Gonzalez, Inter-American Development Bank
Jacob Kramer, Yeshiva University
Sara Jessie Kane, Graphic Designer

TABLE OF CONTENTS

LATAM COLAB

BUSINESS PLAN PROPOSAL

EXECUTIVE SUMMARY

The Inter-American Development Bank (IDB) and the Government of Uruguay requested the assistance of the principal consultants to explore the possibility of attracting world-class international universities to set up a joint educational initiative, focused on advanced STEM fields, with the ultimate goal of developing its workforce and economy for the 21st century. The initial focus of the project was to attract top tier, U.S.-based technical universities to set up a partnership program with a local university in Uruguay, similar to the Cornell Tech project in New York City, but on a much smaller scale. The goal would be to attract talent from the broader Latin American region to further develop the economy of Uruguay – through foreign direct investment and starting new enterprises.

Akiba Covitz and Lisa Lee were contracted as principal consultants to explore the feasibility, interest, and potential design of such a project in Uruguay. Covitz, a former associate dean at Harvard Law School and early member of many technology enabled educational startups, utilized his extensive experience and perspective on the higher education space to help craft a targeted business development strategy and advise on the design of the program. Lee, an independent educational consultant with a master's degree from Harvard Graduate School of Education, utilizes her extensive experience designing innovative programs internationally for hundreds of university and postgraduate students spanning over a dozen countries.

Together, the consultants regularly collaborated with stakeholders to craft a proposal that is innovative and feasible within the constraints outlined. The proposed program model, hereinafter, LatAm CoLAB, is a lean business model that is partnership and colloboration intensive, as opposed to capital intensive. We, the consultants, believe that technology enables knowledge sharing that increases access to specialized expertise, while keeping costs low. We also believe that innovation happens through the continuous interaction of people, ideas, and technology. Our experience and expertise in the field has led us to design a program model that leverages the technology of the knowledge economy while cultivating an innovation ecosystem that spreads ideas and products.

EVOLUTION OF PROPOSED MODEL

Through extensive research into existing international university partnerships, and exploration into innovative new learning models, the consultants investigated the merits and transferability of each of the models given the constraints of this project. What we discovered was that full fledged joint partnerships between U.S. universities and foreign counterparts are expensive, laborious, time consuming, and often do not result in the outcomes initially envisioned by both parties. American universities are less apt to entertain such ventures, although they still want to

extend their reach beyond the U.S. borders. This combined with the current, less than friendly political climate towards immigration and international students provides an opportunity to capitalize on the desire for a U.S. education without having to step onto American soil for an extended period of study.

What we propose is LatAm CoLAB, a blended learning program that combines the best in course content provided by top U.S. technical and other universities with in-person entrepreneurial community building through an intensive interdisciplinary 12-month program for Latin American students. To make it as easy and convenient as possible for universities to collaborate with this initiative, we have established five out of nine services that universities must commit to participate as a collaborator of this program:

1. Dedicate two faculty members to be in-residence (in Uruguay) for at least two weeks/academic year. Professors teach hybrid/online course for remainder of term.

2. Designate one professor/scholar in residence to spend at least four weeks/academic year at the LatAm CoLAB. Professors tasked with mentoring students and/or start-up leaders + could also take additional time in country as one element of sabbatical.

3. Agree to include our program amongst their approved overseas programs, contingent on a partnership with a study abroad provider like the Council on International Educational Exchange or CIEE.

4. Admit as study abroad students at least 10 qualified (under the partner school's guidelines) Latin American students.

5. Agree to provide an annual stipend to the program to cover costs of running collaborative U.S.-Latin American programming.

6. Provide a university sponsored, one-month intensive course in Uruguay.

7. Partner in a two-week cross-cultural learning program where U.S. and Latin American students collaborate and spend two weeks consulting on a global project for companies/organizations in Latin America.

8. Provide consultation and advisory services to curricular or program development as part of an advisory board or committee.

9. Provide access to curriculum and course content that is used at the U.S. university.

We believe that by making it as easy as possible for universities to participate, they will be more willing to join this new venture, which also lends credibility to the project to build momentum and attract more resources to the initiative.

PROPOSED PROGRAM MODEL AND COST

Our analysis of existing learning models being implemented by some of the leading universities in the areas of applied sciences, technology, innovation and entrepreneurship provided the basis for our proposed program framework. We designed a 12 month blended learning program, where advanced content would be delivered online by US university collaborators, and students

could work collaboratively in project based teams on innovative applications of what they are learning. This would happen in a mixed-use space where students, faculty, entrepreneurs, and industry leaders interact to create a mini entrepreneurial ecosystem where ideas turn into products and companies that can change the market economy.

We created two program models, where the curriculum is the same for both, but the learning environment is slightly different:

- **Hybrid Model -** where students would take classes and submit assignments online, and then come together for project-based work in Uruguay at the end of each trimester for 7-10 days.
- **In-Residence Model** – where students live together in a dormitory environment and take online classes together, but work is done in person collaboratively in a designated mixed use space.

In our budget proposal, the cost of the hybrid model included the travel and accommodations for students, whereas the in-residence model only included housing costs. The operating budget to run both these programs in the next three years would be approximately $33 - $45 million, this would include first year startup costs, 100 students in each model in year 2, and 300 students in each model for year 3, for a total of 800 graduates at the end of 2020.

BUSINESS STRATEGY

After initial presentations to project stakeholders, the consultants received positive feedback on the proposed program model. Because of the short time frame and window of opportunity to execute on this program, it was agreed upon that LatAm CoLAB should launch both models of the program simultaneously so as to increase impact and benefit from economies of scale. With this in mind, the consultants have prepared a follow up strategy to continue the development of LatAm CoLAB to provide enough robustness for major stakeholders to make investment decisions in the program. This will include further program and curricular development, identifying and committing potential US university collaborators, development of a viable business model, and providing a willingness to pay analysis to determine pricing for students.

OVERVIEW AND BACKGROUND

PROJECT BACKGROUND

The initial impetus for this project began with a concept note[1] written by Ady Beitler, Integration and Trade Specialist at the IDB. He was seeking to revitalize and leverage the underutilized resource of Punta del Este, a vacation and resort destination in the summer in Uruguay, but mainly vacant the rest of the year. The principal consultants were then identified to propose a collaborative education initiative with U.S. universities with the expressed purpose of equipping

[1] See Appendix 1.1

students with world class technical skills, developing entrepreneurial talent to contribute to the local economy, and attracting regional talent and investment to further develop the region.

PROJECT SCOPE

With 10 weeks allotted to the initial phase, the scope of the project was limited to conducting a feasibility study and analysis to propose a viable initiative that would be both appealing to U.S. universities and Latin American students, but also satisfy the objectives and constraints set forth by the Uruguayan government.

The key objectives of this consultancy were:

- Provide a comparative analysis of potential country models for international university partnerships, with a focus on cultivating small to medium sized business ventures to be located in Uruguay;
- Conduct a feasibility analysis of a potential model for Latin American students to study and then hopefully stay to create businesses in Uruguay;
- Develop a university collaboration business model that optimizes for student enrollment, price, and positive economic impact through the creation of start-up businesses in Uruguay.

Through a combination of research into existing university partnership models, student and company surveys, and intensive and direct conversations with potential stakeholders, the consultants were able to design an initial program model that would fulfill the requirements set forth by the IDB and the Uruguayan government.

CONTEXTUALIZING THE PROBLEM[2]

We began this project by taking a broader view of the problem we sought to address and then narrowing our focus on the areas where we could make the biggest impact. What our research showed us was a gap in the market labor demand for highly skilled technical workers, and the ability of educational institutions to produce them. This gap is particularly acute for the Latin American region, and is cited as a major constraint on productivity for many companies in the region. This further impedes the economic development of Latin American countries in a world where more and more economic activity is driven by technological advances.

The expansion of formal schooling in Latin America has been fueled by significant increases in both public and private spending on education. Latin American countries spend, on average, 5% of their GDP on education and skills programs. The average spending on the region is comparable to most developed nations. In addition to government, families also spend

[2] See Appendix X for complete research on the Latin American educational context.

significant amounts on education. The average Latin American household spends 6.5% of its total budget on skills development; almost 1% more than the average American household (5.8%).

Despite high expenditure on education and skills programs, Latin America severely lags in terms of skills accumulation. At the elementary level, 70% of Latin American 4th graders are not able to add and subtract whole numbers, recognize geometric shapes or understand maps, simple bar graphs and tables, as discovered by the International Mathematics and Science Study (TIMMS). Similarly, at the secondary level, PISA results reveal that 60% of the 15-year-olds in Latin America are unable to demonstrate basic math skills for their grade level.

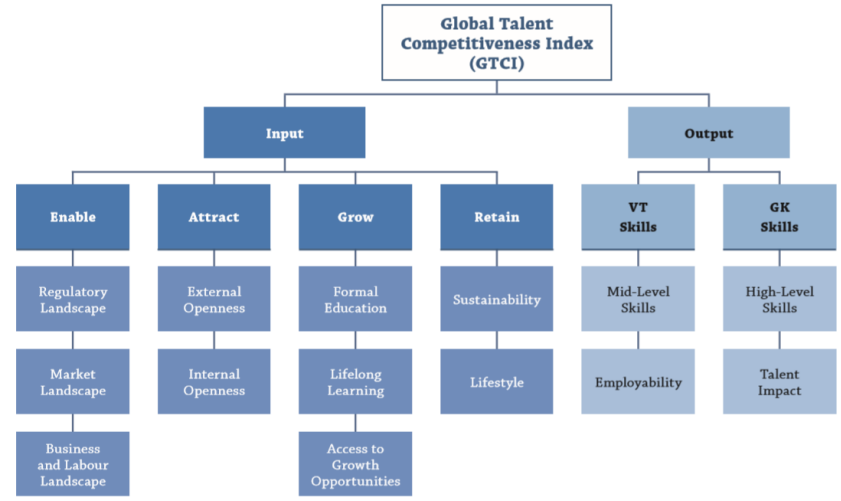
This accumulation of deficient skills across the lifespan negatively affects adult productivity. For instance, in Chile, the only Latin American country that participated in the OECD's 2015 Programme for the International Assessment of Adult Competencies (PIACC), only 2% of adults meet the highest levels of literacy and only 38% are capable of performing tasks that require two or more steps involving the calculation of whole numbers, decimals, percentages and fractions.

As a result, in the Latin American region, more than in any other region in the world, companies are not able to meet their staffing needs. More specifically, employers indicate that socio-emotional skills are more difficult to obtain in the Latin American region. This is particularly troubling as firms reveal that they value socio-emotional over technical or industry-specific knowledge. Even Google, the tech giant, has indicated that of the five attributes required from all employees (learning ability, emergent leadership, humility, ownership, and expertise), expertise is the least important.

David Deming, professor at the Harvard Graduate School of Education, also confirms that the labor market rewards individuals with strong social and interpersonal skills. Nevertheless, although socio-emotional skills are important, his research highlights that, since 1980, employment and wage growth have been especially strong in jobs requiring both cognitive and high social skills. Thus, when it comes to skills, the duality of developing both specialist and social/collaborative skills is very important. Technical skills in addition to social competence are crucial in the talent pool profile since innovation increasingly stems from teamwork. The current labor market requires workers with specialist skills and the ability to collaborate with others from different domains.

The Global Talent Competitiveness Index (GTCI) is an annual benchmark report published by INSEAD Business School, Adecco Group and the Human Capital Leadership Institute of Singapore to measure the country's abilities to compete for human capital based on six key pillars: "enable", "attract", "grow", "retain" talent, and their capacity to develop both "vocational and technical skills", as well as highly trained individuals ("global knowledge skills").

The Global Talent Competitiveness Index (GTCI) 2017 Model



Note: GK Skills = Global Knowledge Skills; VT Skills = Vocational and Technical Skills.

Source: Lanvin & Evans (2016) – pg. 10

In this regard, in the 2017 edition of the Global Talent Competitiveness Index (GTCI), an annual benchmark that measures a country's abilities to compete for human capital, the Latin American region, on average, scored low on the GTCI Index, surpassing only the Central and Southern Asia and Sub-Saharan Africa regions. In the ranking, the highest Latin American country featured is Chile (#34) and the lowest is Venezuela (#105), out of 118 total countries ranked globally.

Uruguay scores high on the "attract" and "growth" pillars. The country is attractive for talent development for its high tolerance for minorities (ranked 6th globally) and availability of new technology as a result of foreign direct investment (#23 worldwide). Moreover, the country is able to "grow" talent by ensuring personal rights (#7) and through the prevalence of training in firms (#28). Similar to Chile, Uruguay also scores low in the "vocational and technical skills" pillar (ranked 92nd worldwide). Uruguayan business leaders report having difficulty finding skilled employees (#91) and indicate that the educational system falls short of meeting the needs of a competitive economy (#100).[3][4]

The mismatch challenge in skills is closely related to the major disconnect between education and the business sector.[5] While technology eliminates some occupations, it also creates new

[3] Lanvin & Evans (2016).
[4] View full country profile in Appendix 2B.
[5] Salazar-Xirinachs (2015).

ones, yet these new jobs require higher levels of skills. [6] As Andrew McAfee, co-director of the MIT Initiative on the Digital Economy, explains, "Routine human work is going away very quickly and never coming back… Educational systems are doing a marvelous job of turning out routine workers. The mismatch is profound. Education is one of the slowest institutions to change in this society."[7]

In general, the region presents, in the consultants' views, two overall weaknesses: informal work and overall skills shortage. In addition, there is a predominant cultural preference for social sciences and humanities. Likewise, the Latin American region does not have a clear vision and/or public policies to develop high-technology sectors. Finally, entrepreneurial talent is relatively scarce in the Latin American region.

The mismatch challenge in skills is closely related to the major disconnect between education and the business sector. While technology eliminates some occupations, it also creates new ones, yet these new jobs require higher levels of skills. Thus, a new model of education is needed.

WHY URUGUAY: NOT "US, TOO," BUT "US FIRST!"

Uruguay, while not particularly well known in North America compared to other, much larger Latin American countries, is, in fact, perfectly suited to play this leadership role for the region. Uruguay has long taken the lead on cutting edge social and economic issues, as represented by its standing in the Global Talent Competitiveness Index. The LatAm CoLAB is the latest of these innovative ideas in which the nation will lead the region and even the world to see the best way forward.

Uruguay stands out in Latin America for being an egalitarian society, for its high per capita income, low level of inequality and poverty, and the almost complete absence of extreme poverty. Because of progressive, inclusive social policies and long-term, moderate economic growth, extreme poverty has practically disappeared in Uruguay, dipping to below 0.2% in 2016. Uruguay is a society defined by a growing and stable ethos of equity. Over the last decade, income levels among the poorest 40% of the Uruguayan population increased much faster than that the average growth rate of income levels for the entire population. The middle class in Uruguay represents 60% of its total population, making it the largest middle class in Latin America. Uruguay is the leading country in Latin America on key indices, including the Human Development Index, the Human Opportunity Index and the Economic Freedom Index. All of

[6] Lanvin & Evans (2016).
[7] Boston Consulting Group (2016).

these factors and many others led *The Economist* to name Uruguay the country of the year in 2013.[8]

Uruguay also has a long history of progressive innovation. As *The Guardian recently put this*, "[o]ne tiny country has been blazing a liberal trail across Latin America. In the past six years, Uruguay has introduced ground-breaking legislation on abortion, drugs, transsexual rights, and same-sex marriage and adoption."[9] On the global front, Uruguay became the first country in the world to create a government-regulated market to grow, sell, and consume cannabis. This is not a recent trend. In the early 20th Century, Uruguay led the way on a whole host of fronts, starting with a separation between church and state, as well as providing women the right to vote and the right to divorce much earlier than other nations in the region.

Perhaps most importantly for the success of LatAM CoLAB is the recent and extraordinary success of the Plan Ceibal,[10] which provided laptops to more than 350,000 children in Uruguay. Miguel Brechner, then director of the Technological Laboratory of Uruguay and who headed Plan Ceibal, is also intimately involved with the LatAm CoLAB, providing primary guidance to the consultants. As many news outlets, including the BBC,[11] reported, a result of Plan Ceibal's success, Dr. Brechner and his government colleagues became consultants to nations around the world on how to make such a transformative program work. Some 70% of the laptops that Plan Ceibal handed out went to children in families that did not have existing computers in the home. This program was begun a decade ago and the results are a nation and an economy ripe for an idea like the LatAm CoLAB.

The flowering of Plan Ceibal and the innovative spirit that it represents are evident in already existing initiatives on the ground in the Uruguay, to which LatAm CoLAB would add. Chief among these in ANII,[12] the National Agency for Research and Innovation. ANII is led by President Fernando Brum, who has been a close collaborator and guide for the consultants of LatAm CoLAB. The consultants also met with and look forward to partnering with the leadership of INITIUM,[13] the Center for Leaders, Entrepreneurs and Innovators of the Universidad de Montevideo. It clear that Uruguay is ready to undertake a regional leadership role in this kind of endeavor.

The final key and fundamental benefits that Uruguay provides to foster the environment in which LatAM CoLAB will thrive are the seasonal benefits that are inherent in this Latin American

---

[8] *The Economist, December 18, 2013 (https://www.economist.com/news/leaders/21591872-resilient-ireland-booming-south-sudan-tumultuous-turkey-our-country-year-earths-got).*
[9] *The Guardian, August 1, 2014 (https://www.theguardian.com/global-development/2014/aug/01/uruguay-lgbt-feminist-student-protest-liberal-reforms).*
[10] http://www.ceibal.edu.uy/es.
[11] *BBC, October 16, 2009, "Laptop for Every Pupil in Uruguay,"* http://news.bbc.co.uk/2/hi/technology/8309583.stm.
[12] http://www.anii.org.uy/inicio/.
[13] http://www.um.edu.uy/international/extras/initium/

location, the beauty and availability of the chosen location in Punta del Este, and access to the Latin American market. When it is summer in North America and most U.S. faculty are freed from their teaching responsibilities, school is in session in Uruguay and in the broader Latin American market into which LatAm CoLAB will tap. This lowers the barrier to U.S. university participation, obviating the need to release a faculty member from her responsibilities in order to teach either virtually or in person in Uruguay.

The chosen location for LatAm CoLAB is in Punta del Este, a beach resort that is radically under-utilized in the non-mid summer months, Punta del Este is a perfect spot with all the necessary logistical and infrastructure elements already in place. Punta del Este is well known throughout Latin America and will serve as a key draw to potential students from around the region. With recent changes in the American political system, fewer and fewer international students are willing to come to the U.S. to study. American universities are looking for creative ways to brand their schools as friendly to Latin American students. In addition, more and more, U.S. students are seeing Latin American study abroad programs as viable options.[14] LatAm CoLAB will add significantly to this growing trend and the time to capitalize on it is now. Uruguay has always led, not followed. This project gives Uruguay the chance to be first again, for the region and for the world.

STRATEGIC APPROACH

Our strategic approach outlines the perspective we took in how we approached this project and interpreted the needs and desires of stakeholders. It provides the framework from which we launched our research, analysis, and design of our proposed program model: LatAm CoLAB, an intensive blended learning experience targeting technical knowledge and expertise while developing the entrepreneurial skills to effectively deploy graduates into the labor market economy.

ENTREPRENEURIAL ECOSYSTEM

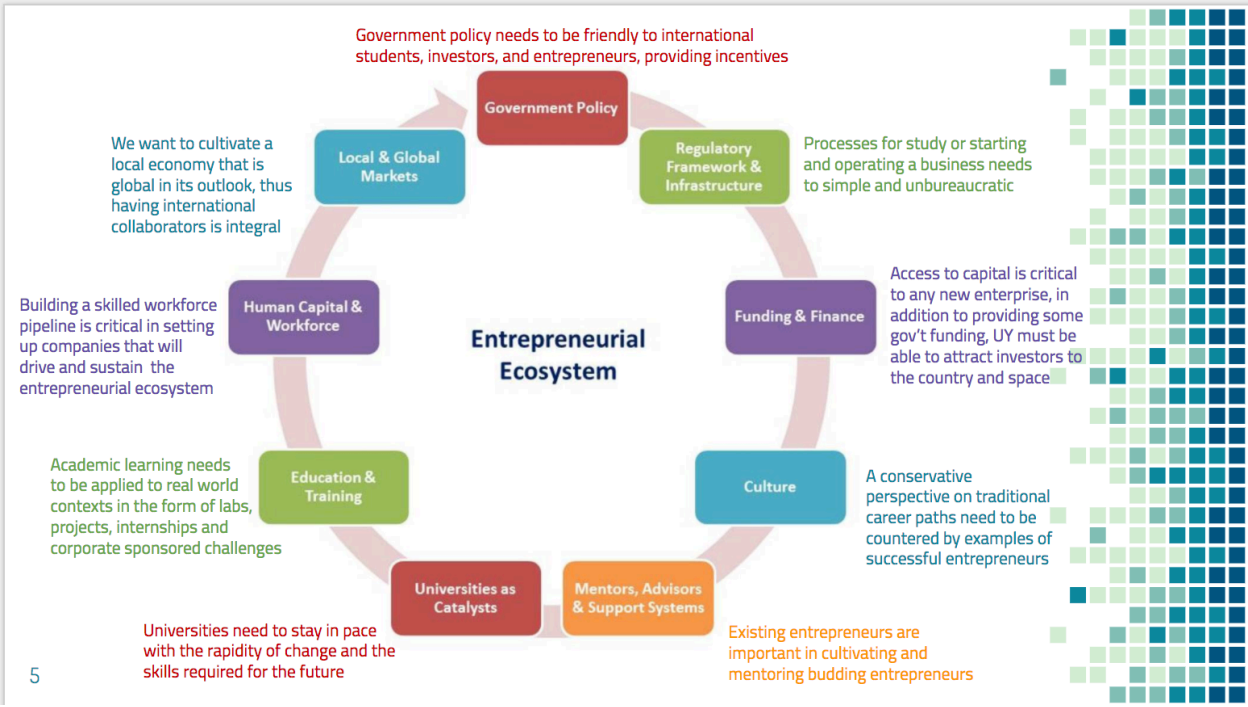
Through multiple discussions with project stakeholders, it became clear that this project should not be a purely academic endeavor that merely provides theoretical knowledge. Instead, the program must equip students with knowledge, applicable skills, real world experience, and the aptitude to take risks and start ventures.

[14] *Miami Herald, November 24, 2017* (http://www.miamiherald.com/news/local/news-columns-blogs/andres-oppenheimer/article186412403.html).

The ultimate goal of this project is to cultivate a strong and thriving entrepreneurial economy within Uruguay that creates companies, jobs, and exports for the country. With that in mind, we see a strategic grouping of university, corporate, and other collaborators as one component of a larger entrepreneurial ecosystem that interacts with each other through a connected network of symbiotic relationships.

In cultivating the entrepreneurial ecosystem, we looked at the various components that make companies, academic institutions, and entrepreneurs successful. We took these components and simplified them to a set that can be implemented within the scope of this project. Thus, what we offer as a starting point is a menu of options residing in the categories of academics, partnership models, and components to be offered by and for universities, corporations, and students.

Our overall proposed model takes a number of these components and integrates them into a holistic ecosystem where entrepreneurial endeavors can grow and thrive, by strengthening the connections of each domain in the ecosystem and providing opportunities for one domain to feed into another.

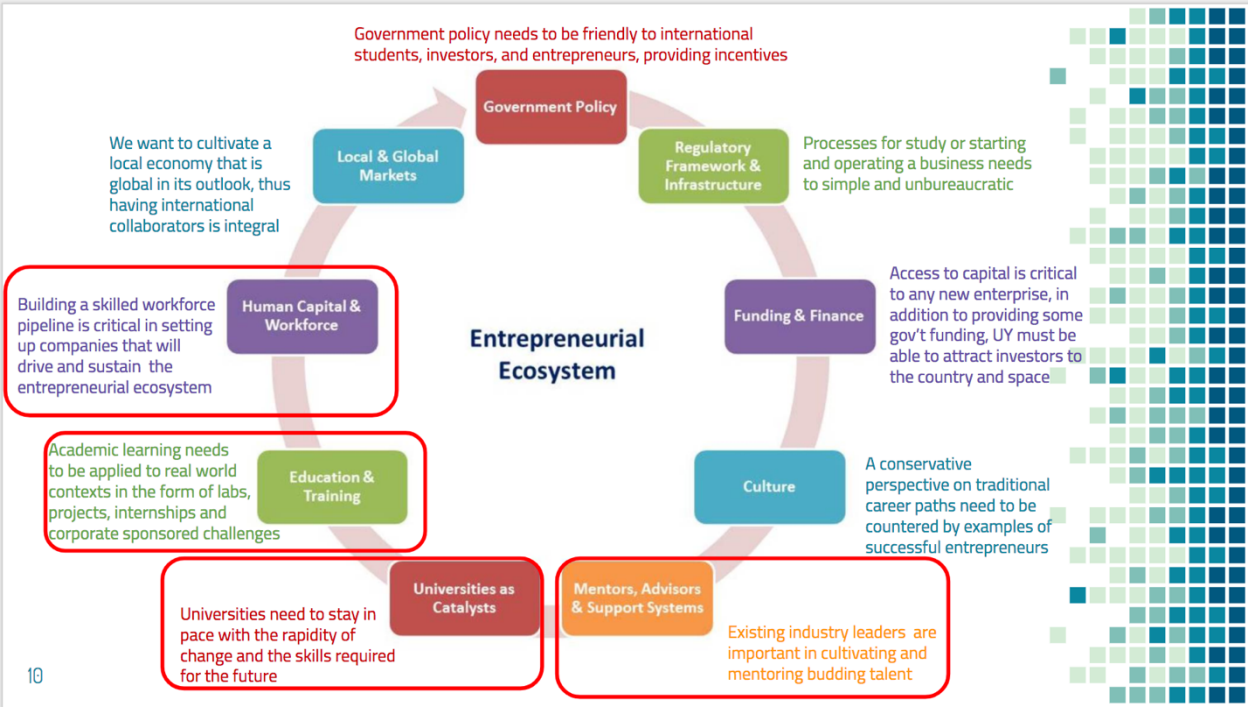


Graphic Source: Mazzarol, 2014; Annotations: Lee, 2017.

While we remain confident that entrepreneurial ecosystems are where education, business, government, and society interact to create the thriving economies, we have specifically focused on four core elements that we believe the LatAm CoLAB initiative is able to strategically address:

1. Human Capital and Workforce
2. Education and Training
3. Universities as Catalysts
4. Mentors, Advisors, and Support Systems

Our proposed model will integrate all four elements to jumpstart the economy in the direction of the technological future.



Graphic Source: Mazzarol, 2014; Annotations: Lee, 2017

1. Human Capital and Workforce Development

Latin America suffers the largest skills gap of any other region. The World Bank's Enterprise Surveys shows that 36% of employers in Latin America cite an inadequately educated workforce as a major constraint for their performances, compared to the world average of 21%, making it the highest in the world.

While the education system as a whole in the region (only 55% of students are enrolled in formal schooling) is a primary factor, we believe focusing on tertiary education, just before students enter the workforce can yield the most immediate and visible impact on economic development.

A Manpower Group Survey in 2015 states that 34% of firms cite lack of technical competencies as the reason they can't fill jobs. Through our surveys and interviews, we sought to identify the most acute needs (skills, experience, expertise) of employers that would yield the maximum impact for their companies and, hence, increase the likelihood of hiring of our graduates. In addition, our research sought to discover the most prominent skills needs in the near future (5-10 years), and understand how we can prepare for those future requirements now.

2. Education and Training

Once we identified the specific skill set needed, we will design programs aligned to the following pedagogical environment:

- Interdisciplinary
  - Students across disciplines will work together to build solutions
- Collaboration
  - Emphasis on teamwork and peer learning
- Holistic Technical and Interdisciplinary Content Areas
  - Computer Programming: Artificial Intelligence & Machine Learning
  - Robotics
  - Data Science & Analytics: Math and Statistics
  - Engineering: Design & Robotics
  - Business and Economics
  - Law and Ethics
  - Social Sciences
- 21st Century Skills
  - Focus on creativity, critical thinking, communication, and other skills needed for successfully collaborating and working in the 21st century
- Project Based Learning
  - Work on real-world problems for companies or community, such as lab projects where company products are evaluated, design challenges, consulting projects modeled after MIT Action Labs, and case studies of real world application of technology
- Mentorship Model
  - Mentorship and guidance from successful entrepreneurs
    - Industry experts sharing expertise
- Blended Learning Content Delivery
  - Online courses from leading US Universities
  - Live stream lectures or webinars from US Professors
  - In-person lectures or seminars by US Academics in Uruguay

3. Universities as Catalysts

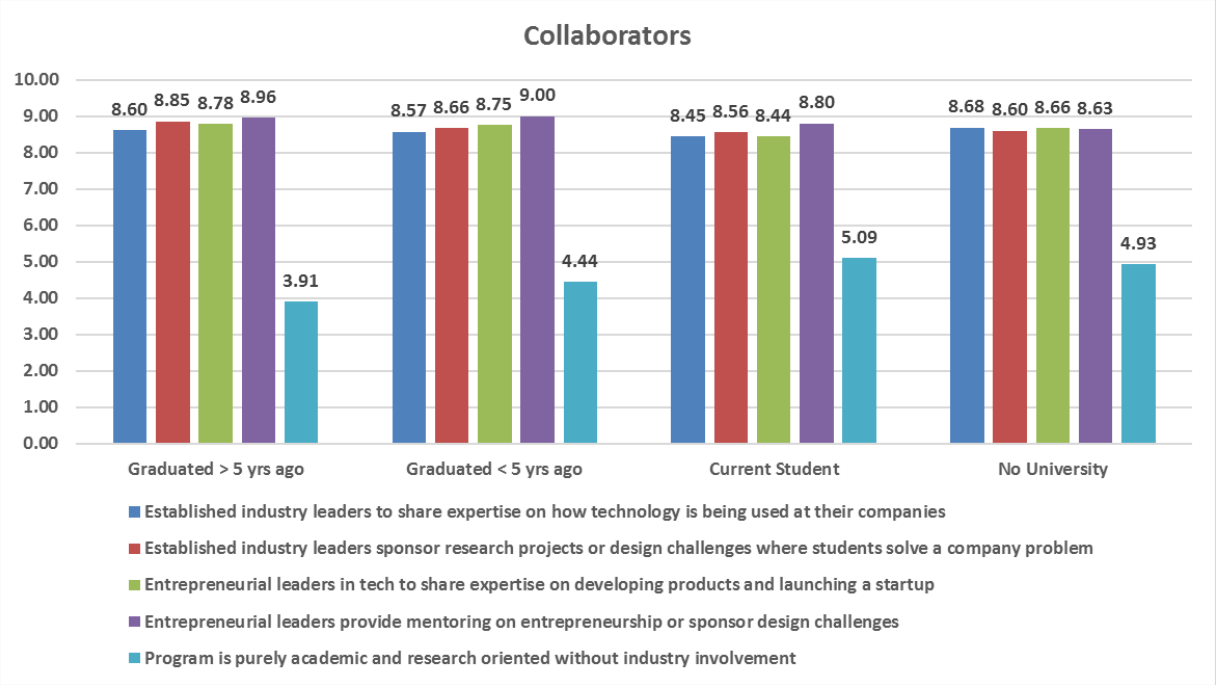
It was clear through our research in contextualizing the problem that universities would not only be the catalyst in addressing the skills gap, but also in jumpstarting the entrepreneurial ecosystem. While general education presents many challenges in the Latin American region, we believe that targeting the educated workforce at the tertiary level will yield the maximum

impact and the most immediate results. Given the rapid pace of technological change, tertiary institutions are best positioned to respond to the skill demands of the labor market, by preparing students before they join the workforce. Targeting education at the lower level should be part of an overall strategy for developing the broad knowledge and competencies of students for entry into tertiary education or specialized fields.

For this project, we see U.S. universities as the brand that will communicate quality and attract Latin American students, who would otherwise study abroad and stay abroad. In gaining US universities as key collaborators for this initiative, we must meet them as they need to be met, by providing a menu of choices that provide the flexibility they need to meaningfully participate in an international venture, without overcommitting themselves as an institution.

4. Mentors, Advisors, and Support Systems

Finally, after examining our survey results and recent trends, we found that students are interested in learning from professionals in the field, while at the same time receiving guidance or mentorship in a structured environment. It is important to note that this preference is present in all surveys, regardless of the academic background (no university, current graduate, recent graduate, young professional) of the surveyed respondents. The role of mentors and advisors providing expert guidance is aligned with our overall goal of combining high level technical expertise with social and entrepreneurial skills needed to succeed in the workforce as a manager or employee.



FEASIBILITY RESEARCH AND STUDY

OVERVIEW OF HIGHER EDUCATION PARTNERSHIP MODELS

Our approach in designing a framework for LatAm CoLAB was to look into various innovative university partnerships as case studies for identifying elements of effectiveness, cost, and challenges, and distill those into a framework that was contextualized for our project. As we discovered, higher education programs around the world have been finding various ways to adapt to the evolving market needs, developing innovative educational models such as the ones described below.

We further subdivided the partnership models by levels of commitment with the highest being a full campus joint venture model, where a partner university develops a full foreign campus in the host country and provides a full suite of university services comparable to their home country. A collaboration model is less comprehensive, in that it does not require a full buildout of a campus. It typically involves a partner university to provide curriculum, research, and expertise to a host university, and can include a degree offering that is co-branded by the partner university. An initiative represents the lowest level of commitment, where a partner university may provide some resources to a project or initiative, but does not offer a full degree or coursework.

Full Campus Joint Venture Models	
Cornell Tech • Partnership between New York City, Cornell U. and Technion –Israel Institute of Technology • Located in New York City • Graduate and Doctorate level degrees in Applied Sciences, Health Tech, Connective Media, MBA, Law, • Campus: Incubator, corporate leased office space, collaboration labs, dorm • Studio Curriculum to incubate startups • Cost: funded by private philanthropy in USD$100s millions + $10s million from schools and city • Launched 2014	**Duke University-Kunshan** • Fully curated foreign campus • Located in Kunshan, China • 4 year Undergraduate degrees • Full-time Liberal Arts and Sciences program • Independent faculty • Computer Laboratory - a hub for local universities and corporate partners to do computational imaging research • Cost to universities: $10s to $100s millions (in dollars and time) • Launched 2013

<table>
<tr><th colspan="2">Collaboration Models</th></tr>
<tr><td>FCT Portugal
Collaboration between gov't and four major US universities in collaboration with local Portuguese universities
Harvard Medical Clinical Scholars
UT Austin - Emerging Tech
MIT - Engineering
Carnegie Mellon - ICT
MIT - Lisbon MBA
Note: These programs reside within local universities, with minimal presence of foreign counterparts
Cost to host country: 44 million Euro per year[15]
Launched 2006, Renewed 2013</td><td>MIT - Singapore University of Technology and Design
One-on-one partnership
Undergraduate partnership with graduate exchanges
MIT provides curriculum development, faculty, student exchanges, research center
Other universities with partnerships: Zhejiang University (China), Singapore Management University
Cost to universities: many $10s of millions
Launched 2010 to end 2017</td></tr>
<tr><th colspan="2">Initiative Models</th></tr>
<tr><td>MIT-Action Labs
MIT Sloan Business School, and other MIT schools spend 2 weeks abroad to work on organizational challenges in global contexts
Partner with international companies or organizations
Combines classroom with project based learning at real companies
Projects in Health, Medicine, Business, Environment, Leadership
Have partnership in India and Israel
MIT students cover the additional cost of travel, lodging through tuition</td><td>MIT- Hong Kong Innovation Node
MIT affiliated clubs, and some affiliates in HK area gather for events and programming as a "club"
No degree offerings
Targeted at High School and undergraduate level
MIT provides summer intensive
HK Innovation Node drives programming and content
Launched 2015</td></tr>
</table>

[15] https://www.fct.pt/documentos/Brochura_FCT_web.pdf.

CURRENT UNIVERSITY PARTNERSHIP MODELS IN LATIN AMERICA

Currently, in Latin America, formal partnerships with international universities in STEM-related areas include study abroad, exchange programs and a few double-degree offerings. The following table summarizes some double-degree Masters-level offerings in the Latin-American region related to STEM areas[16]:

	Mexico	**Mexico**	**Colombia**	**Colombia**
Local Partner	Tecnológico de Monterrey	Universidad de Colima	Universidad de Santander UDES	Universidad Eafit de Medellín
Foreign Partner	Carnegie Mellon's Heinz School (USA)	Ecole Nationale Supérieure Des Mines (France)	Universidad de Sevilla US (Spain)	Hochschule Bremen (Germany)
Degree	Master of Science in Information Technology	Master in Computer Science	Master in Science, Technology and Innovation	Master in Mechanical Engineering
Description	Online degree, delivered in 12 week trimesters, and includes 21 classes	On-site program in Mexico, delivered in 4 semesters (85 credits).	On-site program in Colombia delivered in 4 semesters (49 credits)	??
Other notes	Targets engineers and managers in executive positions	Targets computer science, engineering, physics, and mathematics majors. Has a research focus	All students are sponsored by a scholarship from the Asociación Universitaria Iberoamericana de Postgrados	Students need to demonstrate fluency in German and gain acceptance in the foreign university

[16] See Appendix 4 for more description and double-degree PhD offerings.

In addition to traditional credential- granting programs, there are a few STEM initiatives in the LATAM region that aim to spark innovation and entrepreneurial thinking. These organizations are growing and expanding rapidly in the region:[17]

	University of Montevideo (INITIUM)	**World Tech Makers**	**Laboratoria**	**Mente Argentina**	**Destination Dev**
Countries	Uruguay	Brazil, Colombia, Chile & Mexico	Mexico, Chile & Peru	Argentina	Colombia
Description	Supports entrepreneurs-hip projects with high potential to scale and expand internationally	Offers on-site coding bootcamps (2,4 or 12 weeks)	Prepares young, low-income women to become jr. front-end developers, in order to escape the low-skill/low-paid trap to start a high-skill/high-paid career	First coding school in Argentina that trains in different digital disciplines and fosters an innovation and entrepreneurs-hip community	Coding bootcamp and training academy that brings together students from all over the world

SUMMARY OF HIGHER EDUCATION PARTNERSHIP MODELS

What we distilled from our case studies is that the spectrum of partnerships between two universities can span from full-fledged commitment, like Duke University building out an entire campus in Kunshan, China, to a nearly hands-off approach like Carnegie Mellon simply providing the online curriculum without any substantive interaction with the university (Tecnológico de Monterrey) itself. The models themselves combine traditional master's level coursework and research from both partner universities, and require separate admission into both institutions. In some cases, a student spends a year at the foreign institution, which can significantly drive up the cost of the program.

Other initiatives include some knowledge sharing, but as a whole, we identified Cornell Tech and the MIT Media Lab as the two initiatives that were the most innovative and most closely aligned with the goals of the LatAm CoLAB initiative. Cornell Tech is a partnership between Cornell University and Technion-Israel Institute of Technology, with a full campus to be built out in

[17] See Appendix 5 for additional description of the organizations.

Roosevelt Island, adjacent to Manhattan in New York City. The purpose of the partnership is to provide "graduate education and research for the digital age, integrating technology, business, law and design in service of economic impact and societal good."[18] Thus, all programs are based in the applied sciences and curriculum is designed to cultivate innovation and real world application in the heart of New York City. However, the project itself is estimated to cost about $2bn[19], with Michael Bloomberg contributing $100 million to the project through his private philanthropy. This makes the model cost prohibitive for our endeavor, however, we believe we can still embody the essence of the model in a more cost-effective manner, as will be outlined in our proposed program model section.

The MIT Media Lab is well-known for cultivating research and innovation that often gets spun out into multi-million dollar companies. The Lab has deep ties with the public and corporate sector, which contributes many millions of dollars to fund specific research projects that draw on the student base at MIT. However, the lab itself does not run any academic programs, although it has a close relationship with the Media Arts and Sciences program at MIT's School of Architecture and Planning, where students take classes and do research in-residence at the lab. The degree itself is issued by the School of Architecture and Planning. Because the MIT Media Lab model is so heavily driven by external research funding, with almost all of its funding coming through corporate sponsorship[20], we believed as a business model, it presented some issues for the initiative we are proposing for LatAm CoLAB. However, we recognize the benefits of some industry involvement in the acceleration of innovation, and include elements of it in our model.

PROPOSED PROGRAM FRAMEWORK

Based on our research and analysis of trends in education, and conversations with stakeholders, we sought to create a model that would pull the most effective elements of existing innovative education models and contextualize it for the Latin American environment, and adjust for time and financial constraints specific to LatAm CoLAB.

We started with our strategic approach in building an academic environment that cultivates an entrepreneurial ecosystem and suggest a holistic strategy that will cultivate various parts of the that ecosystem while strengthening its connections. Thus, instead of a foreign-branded university campus, we suggest **a collaborative partnership model set in a mixed use space,** where corporate, entrepreneurial, and academic endeavors can intersect and collaborate. While Cornell Tech has its very own and very expensive campus, its most utilized building is "The Bridge," which closely follows this model, where both programming and space is organized in a way for these three areas to collaborate and innovate.

[18] https://tech.cornell.edu/
[19] https://www.nytimes.com/2014/08/11/education/creating-an-ever-flexible-center-for-tech-innovation.html
[20] https://www.media.mit.edu/members/becoming-a-member-company/

COLLABORATION VERSUS FULL PARTNERSHIP

In evaluating the costs involved in full-fledged international university partnerships, we found the costs involved in building a campus, integrating curriculum, and launching to be cost prohibitive. While the multi-billion dollar Cornell Tech would be an aspirational project to model, we understand that we have to explore more cost-effective ways to achieve a similar mission.

This university-government-corporate partnership space is in flux, as the startup economy grows, we see now, for the first time, what the outcomes actually look like. In the past, a complete emphasis on singularly partnered, grand endeavors, as in fully controlled — and deeply troubled — campuses, like NYU-Abu Dhabi, led to waste, controversy, and misaligned priorities, with faculty members continuing to shun the opportunities NYU hoped would be presented through their massive investment.[21]

The model is now moving to one of *collaboration*, between governments, schools, companies, students, the nature and division of the space, etc. Universities have come to this decision after years of less than successful endeavors, but we will start this way.

Benefits of Collaboration:

- Lower initial launch costs
- Reduced risk
- Increased flexibility
- Lower administrative costs
- Multiple collaborators rather than one partner
- Shorter renewable commitments
- Greater ease in adapting programs or collaborations to rapidly changing environment

We believe the value of collaboration versus partnership is in the freedom it provides to universities to contribute their knowledge and expertise without costly entanglements, and the flexibility it allows for host countries to adapt programming and resources to its specific needs and contexts.

UNIVERSITY COLLABORATION MODEL

What the initial conversations that we have been having tell us is that universities, and also corporations, are less and less interested in grand endeavors. Even if universities are not asked to provide millions of dollars in actual funding, the need to assign many staff members to monitor

[21] See *Chronicle of Higher Education, Novermber 6, 2017,* https://www.chronicle.com/article/NYU-Faculty-Members-Shun-Abu/241685.

and administer such projects amounts to the same millions of dollars in any case. We must secure brand name universities and corporations to collaborate with us in order to be successful. But we propose to show them the benefits of *collaborating*, along with others, and *not* serving as a sole partner.

The future global economy mirrors the mixed-use model that commercial and university property developers have moved to in recent years. A large development will not bet on a single client – even a currently wealthy or powerful one – to inhabit an entire building. The nature of the global economy and the jobs that are created are changing too quickly to make such risky bets. The smart developer also seeks retail clients on the ground floor, dedicates some of the upper floor space to residential use, secures some anchor clients, etc.

To facilitate the capacity of potential partners to collaborate with us, each school that wishes to participate will have to agree to five of the following nine services to provide to LatAm CoLAB:

FIVE OUT OF NINE SERVICES TO WHICH UNIVERSITIES MUST COMMIT:

1. Dedicate two faculty members to be in-residence (Uruguay) for at least two weeks/academic year. Professors teach hybrid/online course for remainder of term.
2. Designate one professor/scholar in residence to spend at least 4 weeks/academic year at UG. Professors tasked with mentoring students and/or start-up leaders + could also take additional time in country as one element of sabbatical.
3. Agree to include our program amongst their approved overseas programs, contingent on a partnership with a study abroad provider like CIEE.
4. Admit as study abroad students at least 10 qualified (under the partner school's guidelines) LatAm students.
5. Agree to provide an annual stipend to the program to cover costs of running collaborative US-Latin American programming.
6. Provide a university sponsored One-month intensive course in Uruguay.
7. Partner in a 2 week cross cultural learning program where US and Latin American students collaborate and spend two weeks consulting on a global project for companies/organizations in Latin America
8. Provide consultation and advisory to curricular or program development as part of an advisory board or committee.
9. Provide access to curriculum and course content that is used at the US university.

CREDENTIAL STRATEGY

Our credential strategy involves multiple partners (corporate, academic, entrepreneurial) and multiple steps. Instead of starting with the logistically and politically difficult task of creating — for example, a Master's in Machine Learning, we start with a lower level of collaboration, keeping the Master's degree as a long-term goal. Instead, we propose using an existing MicroMasters as a starting model. This will be complemented by in-person faculty facilitated intensives, as well as real world projects in collaboration with entrepreneurial or corporate partners. We will also recruit the best students from Latin America and elsewhere through a competition for initial, short-term residencies at LatAm CoLAB.

Part of the value sell to American universities is the appeal of working at Punta del Este where:

- American faculty members in residence will serve as a boon for the Latin American students and entrepreneurs we will recruit to Uruguay,, as well serve as a possible location for those U.S. faculty members to do their own research, or create their own start-ups, etc.
- U.S. universities are trying to attract the best students to increase their diversity, especially from the Spanish-speaking world
- Cross collaboration is easy within our model, where corporate partners, students and startups will be tightly integrated

ACADEMIC STRATEGY

Content Areas

Our preliminary research indicates that technologically advanced economies will be moving towards certain technology areas such as Artificial Intelligence, Robotics, and Data Analytics. Leaders in these industries cite a massive shortage in the talent pool for these fields and those with expertise command highly competitive salaries.

Within these fields are foundational academic disciplines, such as math and science, however, what has been de-emphasized is the growing interdisciplinary nature of technology, where social sciences (psychology and economics) and the humanities (ethics and culture) intersect with advancements of technology. Examples of how humans relate to robots, the regulation of self-driving cars, and the ethics of genetic engineering. These are all challenges that engineers in siloed academic environments are not always well versed to address. Engineers build technology, they push the boundaries of what is possible. They see technology as amoral and thus leave the use or misuse of technology and the ethics of it to others to debate. However, we see value in creating an interdisciplinary environment where such challenges are explored with peers who operate outside of the engineering space.

Pedagogical Environment

In creating a forward thinking and technologically advanced program, we believe that the future of any sound entrepreneurial ecosystem will depend largely on human capital and on each individual's ability to understand, orient, and adapt to the rapidly changing technological

environment. This will require students of all disciplines to interact, collaborate, and work across disciplines in a problem solving and solutions building environment.

Thus, the delivery of content is of critical importance to cultivate the future leaders who will create companies, jobs, and economies in Latin America. We model a pedagogical environment similar to Cornell Tech, and its studio learning program, where students from law, medicine, and engineering work together on a design challenge provided by a local company. However, we contextualize it for the LatAm student population and environment. Initial emphasis will be in exposing students to the possibilities that entrepreneurship offers, providing mentorship, and opportunities to apply their knowledge and skills to real world challenges, both corporate or community.

ENTREPRENEURIAL STRATEGY

Entrepreneurs are at the center of the entrepreneurial ecosystem. The purpose of the academic strategy is to cultivate budding entrepreneurs and provide the environment, where the ideas that are born can grow into companies that flourish and contribute to the economy. By generating jobs and expanding foreign exports. Integrating entrepreneurial classes, events, activities, round-tables, etc. into the programming of our model enables students to see the opportunities in all areas, not just the classroom. Regularly interacting with entrepreneurs and learning from their business provides students with the opportunity to overcome initial fears. In the world of entrepreneurship, experience can be the most effective teacher.

- Integrated academics with real world application
- Modeling entrepreneurship
- Networking to strengthen connections
- Provide initial funding or co-working space to student startups
- Provide convening space for entrepreneurs to gather, exchange ideas, launch products
- Partner with successful entrepreneurs in programming and mentoring
- Provide space and opportunity for innovation to happen

CORPORATE STRATEGY

We will seek out leading collaborators, but not necessarily seek out a singular partner. Our focus will be brand-name collaborators, including Apple, Google, Microsoft, HP, IBM, and others. We would offer the possibility of: shared work space, joint ventures, convening space, training programs, access to students, etc. We can ask them to contribute internship programs, workshops or seminars, or collaborative projects.

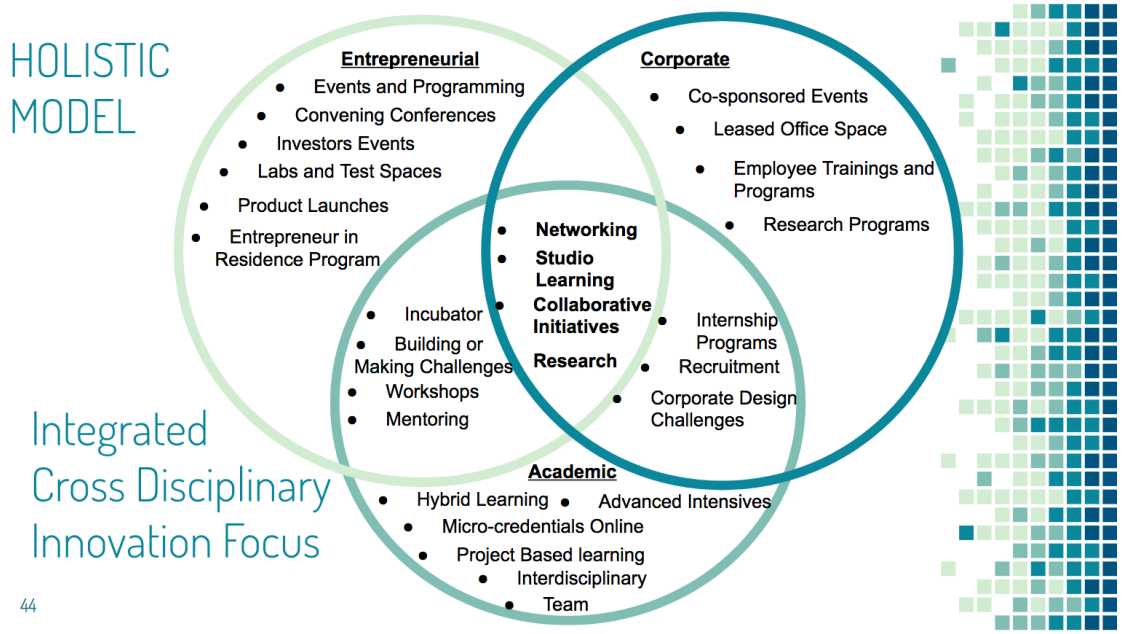
On the push side — we can identify corporate partners and employers to encourage their workforce to acquire additional skills through our academic offerings and even certify their skills. We can also enlist companies to "recognize" the credentials of this program.

Value Proposition to Corporate Organizations:

- Highly educated, motivated, prepared, stable populous, government, and economic environment, ideal to train engineers, managers, and others, as well as to seed their products and services.
- Special emphasis will be placed on the importance of having the active support of both the government and the Inter-American Development Bank in this process, which minimizes risks significantly.
- Access to the facilities of Uruguay Global for senior engineers, corporate officers, and others to come to Punta del Este to serve as engineers or entrepreneurs in residence.

BRINGING IT ALL TOGETHER

We see the intersection of our academic, entrepreneurial, and corporate strategies overlapping in an integrated a holistic model that mimics a mini-entrepreneurial ecosystem. In this space, students are given a safe environment to take risks and learn from their own attempts at innovation, as well as those of peers, as they cultivate an innovative mindset that will launch products and companies.



INTEGRATED MIXED USE MODEL

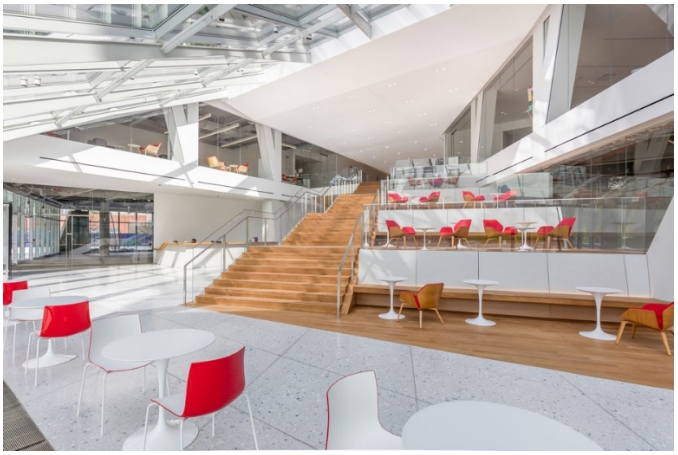
We see this holistic model of integrated and cross-disciplinary learning happening in community with other students in a space where all these interests naturally interact and generate ideas.

A collaborative, "mixed use" model creates a distinctively Uruguayan space, where students and faculty from the U.S., Uruguyan, and Latin American regional universities, as well as corporations take advantage of a range of opportunities, including classes, start-up spaces, corporate and university entrepreneurs in residence, and convening spaces. All of these paths

will be curated centered around the idea of entrepreneurship, with the ultimate goal of driving foreign investment and exports in Uruguay.

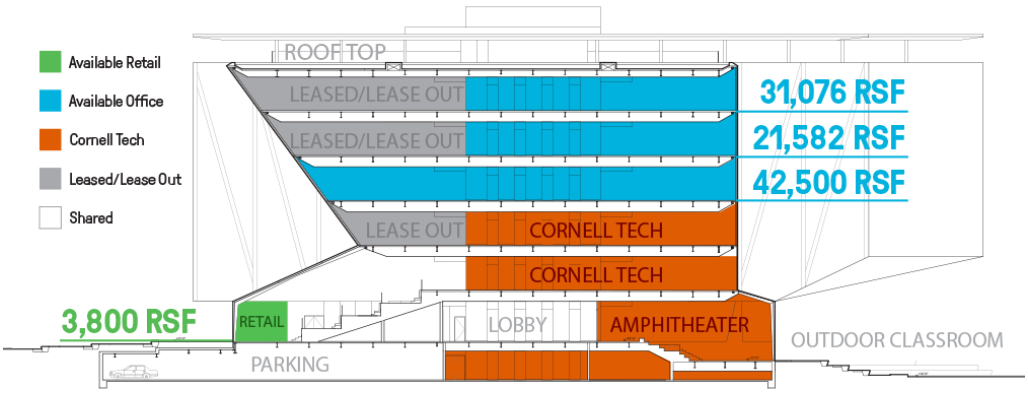
One Space, Multiple Uses, One Goal

Cornell Tech is a clear example of this model in practice. The Bridge building on Cornell Tech campus is a multi-use space that is partially utilized by students and partially utilized by innovative companies. The open layout and design of the building allows for interaction, gatherings, conferences, lab work, and learning to all happen in one building.



Lobby at the Grand Stair at The Bridge, Cornell Tech

The Bridge Model allows for companies to lease out space, which makes it a source of revenue. Strategically, Cornell Tech targets companies that will collaborate with students, or provide test beds for innovation. A curated mix of companies of all stages (from startup to established) from diverse industries are on campus to leverage the resources of Cornell Tech and stay at the forefront of their fields.



Floor plan at The Bridge, Cornell Tech

SUMMARY

What we envision in our proposed model is cultivating a mini ecosystem, where academic learning happens in real-time with the pace of technological change through the continued interaction of key players in the entrepreneurial ecosystem. By either leasing out a space within a building where relevant activities are already happening or procuring a building where space can be leased out to targeted companies, LatAm CoLAB can offset some of the operational costs of running the program.

FEASIBILITY SURVEY AND RESULTS

In order to evaluate the feasibility of our proposed business model, we conducted systematic research, survey, and analysis, in collaboration with the expertise of the Inter-American Development Bank's Trade and Investment Division Team. Through structured surveys, we collected direct feedback from both students and companies in the LATAM region.

SAMPLE

The student survey was sent via SurveyMonkey to a random sample of 37,706 registered users in the ConnectAmericas[22] platform. We obtained a total of 695 responses. The completion rate was just under 60% and respondents spent a weighted average of 10 minutes on the survey. In order to avoid an imbalance in the number of responses per question, we randomized the order of the questions.

The industry survey was sent via *SurveyMonkey* to all of the 9,018 companies listed on the ConnectAmericas platform under the: a) Business and Professional Services and b) Information & Communication Technologies industries. We received a total of 192 responses. The completion rate for this survey was just under 70% and respondents spent a weighted average of 8 minutes on the survey. Given that it was a shorter survey (compared to the student survey), we did not randomize the order of the questions.

SURVEY DESIGN

Student Survey

The goal of the survey was to evaluate the relative preference of respondents for the different potential program components (called "attributes"), in order to construct the "ideal" program based on the most preferred choices. The survey included 15 program attributes: industry

[22] ConnectAmericas is the first social network for businesses in the Americas, dedicated to promoting foreign trade and international investment. It seeks to help SMEs strengthen their businesses, by providing them access to communities of clients, suppliers and investors in the region and all over the world, segmented by industry. It also provides useful and simple information about procedures and regulations for international commerce, and about the financing opportunities available in IDB member countries.

collaborators, geographic location, pedagogical approach, commitment, credential offered, student profiles, job prospects, financial options, university partners, program placement, curriculum, class model, faculty origin, courses offered, and learning environment.

Each attribute, or program component, included two to five alternatives ("specifications"). When needed, the attributes included a sense of the trade-off required for each specification (e.g., reference to the magnitude of the cost of in-residence versus online programs - program placement). Respondents had to rate each specification on an attractiveness scale from 1-10. This methodology allowed us to understand the preference sensitivity for each attribute (measured as the difference between the most valued choice and the least valued choice for each attribute as a share of the sum of the differences of all attributes) in order to identify the attributes/specifications that increase or decrease the attractiveness of the program the most.

Finally, we asked respondents to directly identify the top five attributes (from all the attributes) that they deemed most important when evaluating whether or not to apply to such a program.[23]

Industry Survey

The goal of the survey was to evaluate businesses' skill needs and to measure their potential interest in our proposed program. For this objective, we collected general company data (e.g., specific business activity) and asked each business (categorized as STEM and non-STEM) to identify the specific skills they are looking for in their workforce. Then, we asked companies about the importance of a specific degree credential when hiring a candidate (versus non-degree knowledge). Finally, companies were also asked to rate the attractiveness of specific components of our program and how willing they would be to participate in our program in various capacities.[24]

RESULTS

Student Survey

Student survey results indicate that human capital (faculty and collaborators) is one of the most important attributes. Respondents show a strong preference to working with industry experts or entrepreneurs working in their technical field from Latin America or outside Latin America (9.19) as well as with entrepreneurial leaders who provide mentoring and/or sponsored challenges (8.90). Respondents also indicate a preference for a learning environment which houses both cutting-edge companies and tech courses/programs and provides a venue for conferences and hackathons (8.89). Finally, respondents also show a preference for top-ten US universities in STEM fields (8.86), even if that results in higher program costs.

Conversely, results suggest that respondents are least interested in a program that is purely academic with a research focus (4.24), or one that is mostly delivered full-time in Uruguay only

[23] See Appendix for in-depth student survey methodology.
[24] See Appendix for in-depth industry survey methodology.

(4.3). Finally, respondents show a strong cost consideration, revealing little interest in a program that does not offer any financial assistance (2.61).[25]

Industry Survey

Companies in the LATAM region indicated that product development/management and computer programing/software development skills will be the most important skills required in the next 3-5 years. Moreover, in relation to STEM-roles, companies indicated that they will be seeking mostly entry-level roles (versus intermediate, advanced, managerial, and/or executive roles) in the next 3-5 years.

In addition, the results suggest that Masters' and other advanced degrees are not necessarily required by companies for their employees to hold managerial positions. Overall, companies value employees' technical, interpersonal and leadership skills more than their academic background. In this light, companies also show relative impartiality to hiring graduates with a credential certified by either a tech organization, an American university or the local government. In fact, companies revealed a preference to source STEM hires from our proposed program (versus a graduate from a regional master´s program).

Finally, in terms of involvement with our program, companies are most interested in participating in consulting projects and sharing their expertise (e.g., conferences), as opposed to hosting hackathons or company sponsored events.[26]

PROPOSED PROGRAM MODEL

Based on our analysis of existing partnership models, and the results of the feasibility survey, we combined the elements that we believed to be most innovative and had high rates of desirability. From the feasibility surveys, we learned a few valuable insights that were key in shaping our design of the LatAm CoLAB program:

- Both potential students and companies were comfortable with a professional credential as opposed to an accredited Master's degree if they saw the program provided valuable skills and knowledge
- Students were comfortable with learning content online, but valued in-person activities
- Students were interested in learning from industry leaders and entrepreneurs
- Students wanted to learn the knowledge to launch their own products
- Companies valued interpersonal skills as much as specialized technical skills

[25] See Appendix 6 for full student survey results.
[26] See Appendix 6 for full industry survey results.

HSx: Advanced Thinking in Homeland Security	
Structure • Postgraduate / professional credential - no degree • 6 quarters over 18 months • Distance learning plus 2 week in-residences each quarter • Cohort based model • Highly selective - High level Homeland Security officials • Project based Learning • Culminates in a product or project launch • Fully funded by government	**Content** • Cohort Curated Content • Focus on Homeland security challenges: Climate security, disaster management, anti-terrorism • Content is decided in each in-residence • Industry experts invited to teach and speak • Core curriculum follows lean startup methodology contextualized for gov't
Mission U	

Structure
• 1 year undergrad program
• 3 trimesters:
  • Foundation
  • Specialization
  • Work Experience
• Real-time virtual classes
• Bi-weekly in person meetings
• No degree - but resume and portfolio of work
• $0 up front tuition, students pay back 15% of salary for 3 years
	Content
	• One Major currently: Data Analytics + Business Intelligence
	• Skills focused curriculum
	• Team based projects
	• Collaboration with companies to work on client projects
	• 6 weeks dedicated to launching career
	Currently only serving cities that meet demand: San Francisco

MIT Media Lab	
Structure • Research Center that also offers Postgraduate Programs • MA or PhD in Media Arts and Sciences • Actively recruits outside companies as members to sponsor research projects • Students can intern for any of the research projects • Companies can cross- collaborate with all stakeholders • PhD program is fully funded, additional research funding provided by external sponsors	**Content** • Anti-disciplinary research in arts and sciences • Emphasis on human interaction with technology and science • Future Focused approaches to life sciences, ethics, artificial intelligence, agroscience, etc. Practical commercial applications of research end up spinning off into companies

Minerva KGI	
Structure • Four year global campus undergraduate program • Real-time online seminar classes and practical projects • Cohort based model living in seven different cities for one semester each • Team projects in chosen focus area in each city • Capstone Project at end • Buenos Aires is one of the campus cities • Tuition: $25-30k/yearly	**Content** • Less content focused, more focus on cultivating skills and habits of mind • Five Broad majors to allow adaptability - social science, arts and humanities, business, computational science, natural sciences • Core Curriculum: multimodal communication, empirical analyses, complex systems, formal analyses

SAMPLE PROGRAM

As we analyzed the elements of successful innovative program models, we drew up a set of design principles that we believed would be effective for the program we were designing for LatAm CoLAB. In addition, we drafted a sample program so that stakeholders could envision what a student or a collaborator would go through in the program.

DESIGN PRINCIPLES

1. **12 month program**
    a. From the outset, we want this to be seen as a substantive endeavor.
    b. We want to create a quarter or trimester system that lasts longer than a MOOC specialization and offers a deeper learning experience.
    c. We also need a longer duration for students to build on knowledge and apply it.
    d. This is also conducive for facilitating collaborative learning habits through successive team projects.
2. **Sequential, Scaffolded Curriculum**
    a. Each trimester builds on the one previous and culminates in a final capstone project where a student demonstrates mastery of their specialization.
        • This could be an in-residence team project
        • Individual project that solves a real problem with a go to market strategy
3. **Online + Real-time Engagement**
    a. We want the convenience of learning the best online content from the leaders of the field.

b. We propose a flipped model where students watch the content on their own time, but there are weekly in-person and livestream sessions with professors so that students can ask questions and deepen on the content.

c. Such a model also will allow students to build their own social networks with each other as fellow students and as future collaborators.

d. Industry experts can also hold webinars on their specific expertise area, both online and in-person, and students can voluntarily attend.

4. **Practical Project Based Learning**

    a. We believe learning is most effective when applied immediately in real world contexts.

    b. Students will choose an industry related challenge to address as a team.

    c. Interpersonal and leadership skills will be cultivated in a teamwork environment - generating more employable and effective graduates.

5. **In-Person Learning and Collaboration**

    a. We suggest each trimester either starts or culminates with 7-10 days in Uruguay, where students can work collaboratively and attend in-person seminars by professors.

    b. Industry leaders can also provide consulting projects for students to work together - similar to

    c. We can also provide the option to spend the last trimester in UY to work on a team to build and launch a product in UY

PROGRAM STRUCTURE

What we've come up with is a program structure that maintains its fidelity to our design principles. We envision a program framework that is:

1. Duration: 12 months divided over 3 trimesters
2. Sequential Scaffolded Curriculum:
    a. Trimester 1: Foundational Learning
    b. Trimester 2: Deep Dive into Problem Solving
    c. Trimester 3: Launching Solutions
3. Online + Real-time Engagement: Each Trimester consists of online content delivery in core and specialization modules or courses, plus regular weekly livestream sessions or office hours with US Professors. All courses will also include teaching assistants at faculty's choosing.
4. Project Based Learning: A focus on immediate application of knowledge is core to the vision of our program. We plan on providing a series of assignments, competitions, end of term team projects, and provide industry challenges to enable our students to

contextualize their knowledge, take risks, and apply their solutions in a safe environment, where we can accelerate their learning.

5. In-person Collaboration: Each trimester is built around a capstone project. Collaborating faculty come at the end of each trimester for 7-10 days to:

    a. Evaluate capstone projects

    b. Conduct live seminars or workshops

    c. Teach an intensive multi-day course

    d. Participate in panel discussions, lectures, conferences, or design competitions

    e. Provide guidance or mentorship to students on the development of their projects, ideas, or research

TWO MODES OF LEARNING

Through our research and feasibility study, we found that potential students from our program are both very comfortable with online programs, and find them more cost-effective than on-campus model. However, we understand acutely that to cultivate the type of hands-on skills and collaborative learning that we seek, we need to integrate in-person opportunities to share expertise, exchange ideas, work on team projects, and facilitate peer learning.

1. **Hybrid Model** – In our hybrid model, students work remotely for 3 months each trimester with content being delivered online, but they also work online collaboratively in real time on assignments and projects while also attending live streams with collaborating faculty. At the end of each trimester, all students will convene in Uruguay to present their team projects, work on new projects, and learn from collaborating US faculty, entrepreneurs, and industry leaders in their field.

2. **In-Residence Model –** this model will be a more traditional on campus/in-residence model where students will live together and go to classes that are telecast in real-time. It will follow the same structure as the Hybrid model, with students learning content online, with weekly live webinars with faculty. The only major difference is that students can attend livestream sessions as a cohort, and there is more opportunity for in-person programming, as well as more opportunity to collaborate in-person on team projects in a dedicated space.

Draft Sample Program: Artificial Intelligence Specialization

Hybrid Model

Basic Pre-requisites: Students interested in the Artificial Intelligence Specialization will need to pass some basic pre-requisites before being fully admitted to the program. This can be done through reviewing transcripts or passing a basic skills assessment that will assess a student's ability in the areas of computer science and programming, mathematics, and statistics. Familiarity with basic coding languages, and platforms will also be assessed.

Kick-off

2-3 day Orientation: Introduce students to program, meet and greet with faculty, program expectations, support and resources.

Universities Can Participate By:

- *Assisting in planning the programming in the orientation*
- *Sending faculty and instructors to Uruguay to kick-off the program*
- *Spend additional time in Uruguay to provide curriculum advisory, participate in working groups, sharing expertise*
- *Convening a conference on a related topic to LatAm CoLAB Initiative*

Trimester 1: Foundational Learning

Trimester 1 lays the foundation for a new way of learning and collaborating. Students will focus on learning independently, managing their time, working together on assignments, and developing an entrepreneurial mindset – all while zeroing in on the technical skills required to master their specialization. Trimester 1 will introduce interdisciplinary thinking and a metacognitive approach to learning.

Core Curriculum Classes

Core curriculum classes will be mandatory for all students to take as a cohort. The purpose of core curriculum courses is two-fold:

- Weave in the interdisciplinary subjects that technology is intersecting and expose students to the potential applications of technology
- Provide a core set of entrepreneurial skills that will enable students to succeed in advancing their ideas and collaborating with others

Format: These can be online modules and/or special live lectures/seminars led by U.S. collaborating faculty using a synchronous-enabled learning platform. Faculty can suggest or create new content or use existing content to help refine for use in the classroom and/or in an online environment. This presents a great opportunity to pilot ideas for new courses, share expertise or research, and disseminate ideas.

Potential Core Curriculum: Class modules or seminar topics can include:

- Learning to Learn – developing capacities to learn independently and in an online environment
- Futurist Thinking – preparing students with the skills and strategies for envisioning the future, shaping, and planning for the future, potential topics can include:
    - Intersection of Artificial Intelligence with Society & Culture
    - Ethical implications of artificial intelligence and privacy
    - Artificial intelligence and displacement in the labor market

- Understanding Complex Systems
- Undertaking Formal Analyses
- The Basics of Empirical Analyses
- The Basics of Multimodal Communications

Universities Can Participate By:

- *Sharing livestreams of your on-campus lectures pertinent to program*
- *Conducting a series of lectures or seminars*
- *Creating or utilizing an existing module for the core curriculum*
- *Providing curriculum advising and design*

Specialization Classes

LatAm CoLAB is interested in equipping students with the technical knowledge and competencies to succeed in advanced STEM fields. Therefore, students choose an area of specialization in which to delve deeply and focus solely on the coursework that will hone their skills and is contextualized for use in that specialization. Students will engage in individual and team assignments that demonstrate both deep technical knowledge and competency.

Format: Online courses (pre-recorded or live) with weekly live webinars from professors/experts. Because of the breadth and depth of the program, these specializations can be curated from existing courses and pared down into modules that integrate well together.

Potential Specialization Courses:

- Introduction and Foundations of Artificial Intelligence
- Data Mining
- Deductive Systems
- Knowledge Representation and Reasoning

Universities Can Participate By:

- *Leading additional supplementary online webinars or office house for Q&A*
- *Leading open working sessions where problem sets can be worked out with students*
- *Creating specialized course content*
- *Providing curricular consultation*

In Residence:

- **Days 1-4:** Trimester Project Evaluations, In-person professor seminars
- **Day 5-6:** Hackathon: Problem Based Challenge issued to cohort by a company, industry entity, NGO, or government agency. Cohort works in teams over the course of 2 days to understand a problem, ideate a solution, and build a working prototype. All teams must present their prototype on the third day before a panel of judges for evaluation.

- **Day 7:** Prepare and plan for trimester 2. Team prototypes, the problems they addressed, and the technology built will be the subject of their trimester 2 project. Teams will have the option to shuffle around, but must decide what teams to work on for trimester 2.

Universities Can Participate By:

- Serving as an additional project evaluator
- Providing a five day intensive workshop
- Lecturing or leading special topic workshops or seminars
- Serving on the judging panel of the hackathon
- Serving as a mentor or subject matter expert
- Joining a working committee in-person to develop curriculum for current or future specializations

Trimester 2: Deep Dive

In trimester 2, core and specialization classes will retain the same format as in previous trimester, with a new focus on working in teams, and product development. The purpose of trimester 2 courses is to develop the technical skills to not just conceive of technical solutions, but also iterate, improve, and sustainably develop and launch a solution. This requires skills, frameworks and strategies for working in teams, managing projects, and product development.

Teams from Hackathon will assemble to use product from design challenge as the Project Based Learning mechanism for Core Classes.

Potential Core Classes:

- Prototype thinking
- Team dynamics and communications
- Google Ventures Research Sprint
- Product development life cycle
- Ethical dilemmas in technology
- History of science and technological progress
- Case studies of innovation across various industries (healthcare, entertainment, retail, transportation, etc.)

Potential Specialization Classes: Majority of related assignments will be contextualized for the *team's product solution.*

- Natural Language Processing
- Decision-Making
- Problems of Logic
- Cognitive Psychology
- Machine Learning

In Residence: Specialized seminars throughout 10 days

Days 1-5: Product Evaluations, Feedback, Team-building workshops, Mentorship

Days 6-9: Working Sessions to Iterate Product and Test Products on real customers

Day10: Planning for Trimester 3

Trimester 3: Launch

In Trimester 3, students will refine their products and technologies for commercial viability. Students will develop core business acumen, refine their communication skills, and identify the role their technology will play in the market. While students will focus on developing sustainable business models, they will be pushed to advance the scope of their technology and consider scale not just in terms of customers, but in terms of industries that the technology can penetrate, as well as the potential impact it can have on society at large.

Potential Core Classes:

- Business economics and market theory
- Consumer psychology
- Communication skills for business
- Organizational behavior and management theory
- Disruptive innovation and movements throughout history
- Case studies of commercial application of technology
- Law, ethics, and policy in technology and regulation

Specialization Classes: MOOC - with weekly/bi-weekly live webinars from professors/experts

- Deep Learning
- Neural Networks
- Structuring Machine Learning Process
- Language and Speech Recognition
- Advanced Computer Vision

In Residence: Final Pitch Competition & Graduation

Days 1-2: Teamwork Sessions to finalize Project Pitch

Days 3-4: Pitch Competition and Judging

Days 5-6: Final Program Grading and Evaluation

Days 7-8: Next Steps, Mentorship and Guidance, Entrepreneurs sharing expertise

Day 9: Graduation and Announcement of Incubator Grant Winners

Optional Incubator Program: For the winners of the final pitch competition, teams will receive 4 months funding to work on their project in Uruguay after graduation. This will be done in partnership with local incubator programs such as ANII or 500 startups.

Students will receive a grant to cover expenses and provision of additional support:

1. Housing for four months
2. Living stipend
3. Free co-working space
4. Access to mentors and advisors
5. Startup resources
6. Small product budget or seed investment
7. Potential to renew
8. Guidance from U.S. faculty

Universities Can Participate By:

- *Serving as a judge on panel*
- *Contributing to programming by making in-person visits or holding webinars*
- *Serve as a mentor or entrepreneur in residence for minimum of two weeks*
- *Consult or advise on special programming for LatAm CoLAB graduates*
- *Host graduates on campus as a study-abroad student to participate in Winter or Summer Session courses*
- *Bring students onto campus for action learning projects with US companies*
- *Invite US students to Uruguay to collaborate with student projects or industry consulting projects*

IN-RESIDENCE SAMPLE PROGRAM

The In-Residence program would follow the exact curriculum of the hybrid program, the only difference would be:

- Trimester 1 – the students will learn the content online, and will not move to the campus until the end of Trimester 1
- Trimester 2 and 3 – students will continue to learn content online, however, but they will have designated "in-class" times when they attend live stream webinars, TA led discussions, project work time, and special workshops and seminars held by local or visiting entrepreneurs or faculty
- Use of dedicated mixed-use space – there will be open lab and study space available for students to work independently or collaboratively on projects or assignments
- Community building – there will be hosted community building events and outings to help students get to know the surrounding community, as well as each other
- Interaction with local entrepreneurial ecosystem – students can also take trips or look for internships at surrounding entrepreneurial spaces

PROPOSED BUDGET

In calculating the total budget for the program, we focused solely on operational costs of running the program, which also included the travel costs of students flying into Uruguay for each trimester's 10-14 day in-residence. We did not include any tuition revenue, as that is to be determined through the willingness to pay analysis, and we wanted to provide the base costs of launching and running such a program. We provided low and high cost estimates and presented an average of the low and high estimates as the lower band presented in the table below, along with the highest possible estimates. Our calculation of expenditures for 3 years of operation, which include first year startup costs plus 2 years of programming costs are estimated to be around $33-45MM.

	Startup Costs 2018	**Year 1 2019**	**Year 2 2020**
Hybrid Model	$2 – 2.5MM	$4.5 – 6MM (100 Students)	$9 – 12MM (300 Students)
In-Residence	$2 – 3MM	$5 – 7MM (100 Students)	$10 – 14MM (300 Students)
Total	$4 – 5.5MM	$9.5 – 13MM (200 Students)	$19 – 26MM (600 Students)

FINANCIAL ASSUMPTIONS

The financial model for both the hybrid and in-residence model includes two possible scenarios: "low" and "high". These refer to two different ranges in which each of the costs could fall, depending on unknown circumstances.

Certain financial assumptions were made concerning the budget to help cost out the operating budget, these assumptions are outlined in the table below and can be modified in consultation with the client.

Budget Area	**Hybrid Model**	**In-Residence Model**
Deans	Both models include a full-time Dean and Assistant Dean beginning in the program in Phase 1, with additional benefits calculated at 28%.	
Faculty	The staffing model for faculty is to utilize adjunct faculty only (no full-time or part-time dedicated faculty). Each trimester of the program averages 4 modules, 2 core modules and 2 modules specific to the specialization. It was assumed that each adjunct would teach two modules per trimester. The base calculations for adjuncts in Phase 2 and Phase 3 was 2 adjuncts per trimester plus 1 additional adjunct per trimester per specialization. Phase 4 of the model doubled the faculty student ratio due to the	

	higher projected enrollments.	
Staff Support	Staff support needs were generally calculated to increase as more students entered the program. Due to the online nature of much of this program, actual support staff needs are lower than an In-Residence Model.	Unique to the In-Residence Model is the need for Resident Advisors to supervise the students living "on-campus" during the entire course of the program. Due to the increased use of on-campus infrastructure, the information technology support is also greater in the on-campus model.
Teaching Assistants	Teaching assistants (TAs) were calculated at a rate of 1 TA per 25 students per course per trimester.	
		In addition to the above-mentioned TAs which may be mostly online, the In-Residence model includes having TAs in-residence at the rate of 1 TA per 25 students per trimester.
Consultants	Consulting costs for both models are very similar with the exception that there may be additional legal expenses associated with offering the hybrid model. Management Consulting includes ongoing international consulting services throughout the phases of the program.	
Administrative Operational Expenses	Administrative Operational Expenses includes costs such as computer supplies, advertising, accreditation, recruitment faculty/staff and others. These costs were model after American university budgets, yet adjusted to the LATAM reality and resources. Expenses are similar for both models with the In-Residence model having slightly higher expenses related to having students and local staff on campus for the whole year. Faculty development has been included with the assumption that 50% of the administration and faculty (including adjuncts) will receive faculty development per year.	
Student In-Residence Expenses	Travel expenses for students have been calculated based on the assumption that it is only necessary for the 50% of students coming from outside of Uruguay (Uruguayan students travel costs would be negligible or they would be responsible for their own travel). Additionally, expenses relating to TA in-residence expenses are included in the student category. The total in-residence expense for	For the in-residence model, students will be responsible for their own travel and meals. The budget includes housing, activities and miscellaneous expenses for all students and Resident Advisors. While students may pay additional fees to cover the cost of housing, this has not yet been accounted for in the model.

	the hybrid model is based on a 2-3 day kickoff session, and 7-10 days in-residence per trimester, for a total of 4 trips totaling a combined 23-33 days of in-residence time per year. In addition to travel, housing and meals, an activity expense has been included to allow for travel or activities as part of the in-residence portion of the program.	In the In-Residence model, TA expenses are included with faculty.
Faculty In-Residence Expenses	Faculty in-residence frequency and time will be the same as that of the students: 4 trips for a combined 23-33 days of in-residence time per year. Housing expenses for faculty has been calculated at a higher rate per day than that used for students.	For the In-Residence model, it was also assumed that each faculty member would visit for 23-33 days per year over the course of 4 visits. Additionally, since students will be in-residence for the entire time period, each adjunct will also send a TA to be in-residence for a total of 23-33 days per year over the course of 4 visits. On average this will mean that each course will have a faculty or TA present for a minimum of 2 weeks per trimester.
Incubator Expenses	The incubator expenses have been calculated to be awarded to one team of 4 students in Phase 2, and five teams of 4 students each in phases 2 and 3. The incubator would be for 4 months and would include shared housing and living stipends for the students, as well as a seed investment in the amount of $15,000-$25,000 per team. Both models include monthly visits (7-10 days) from faculty or other advisors to guide and instruct the winning teams through the incubation process.	
Educational Support Expenses	The educational support expenses include support services generally provided by universities or academic programs to their students. These costs were model after American university budgets, yet adjusted to the LATAM reality and resources. For the Hybrid Model these costs have been reduced to 25% of the initial total and for the In-Residence Model these costs have been reduced to 50% of the initial total.	
Campus Facilities Lease/Management Fee	Cost of campus facilities (either lease or purchase) is not calculated for this operational model as it is a capital investment. A portion of the cost of the campus/building could be offset by renting out space within the building. Included in the model is a management fee relating to the space in the amount of $40,000-$60,000 per year.	

In the hybrid budget, the bulk of operational costs is derived from the cost of travel to Uruguay during the three in-residence portions of the program during the trimester, plus the kickoff. Assuming that half the students will be from outside Uruguay, the cost of travel and lodging for them was taken into account, as part of the operating budget since it will be required attendance. We provided these numbers for decision makers to decide who should bear the burden of that cost.

Hybrid Program Model	**Phase 1**		**Phase 2**		**Phase 3**	
	February 2018 - January 2019		**February 2019 - January 2020**		**February 2020 - January 2021**	
Description	**Low**	**High**	**Low**	**High**	**Low**	**High**
REVENUES						
Total Tuition & Fees	$ -	$ -	$ 1,800,000	$ 2,200,000	$ 4,995,000	$ 6,105,000
University Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Uruguay Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Inter-American Development Bank Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Corporate Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Research Funding	$ -	$ -	$ -	$ -	$ -	$ -
Office Space Lease	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Revenue	**$ -**	**$ -**	**$ 1,800,000**	**$ 2,200,000**	**$ 4,995,000**	**$ 6,105,000**
EXPENDITURES						
Total Faculty Salaries & Benefits	$ 288,000	$ 544,000	$ 365,760	$ 738,400	$ 469,440	$ 997,600
Total Education Staff Salaries & Benefits	$ 140,800	$ 313,600	$ 200,192	$ 382,720	$ 510,976	$ 949,760
Total Consultants	$ 375,000	$ 650,000	$ 375,000	$ 650,000	$ 375,000	$ 650,000
Administrative Operational Expenses	$ 362,500	$ 825,000	$ 697,500	$ 1,300,000	$ 971,250	$ 1,702,500
Student & TA In-Residence Expenses	$ -	$ -	$ 807,000	$ 2,086,120	$ 2,421,000	$ 6,258,360
Faculty In-Residence Expenses	$ -	$ -	$ 118,350	$ 438,345	$ 276,150	$ 1,022,805
Incubator Expenses	$ -	$ -	$ 51,067	$ 112,067	$ 147,267	$ 302,267
Research Investment	$ -	$ -	$ -	$ -	$ -	$ -
Adjusted Educational Support Expenses	$ 26,250	$ 58,125	$ 75,703	$ 122,322	$ 83,750	$ 128,750
Campus Facilities Lease/Management Fee	$ -	$ -	$ 40,000	$ 60,000	$ 40,000	$ 60,000
Equipment Leases	$ -	$ -	$ -	$ -	$ -	$ -
Scholarships	$ -	$ -	$ -	$ -	$ -	$ -
Total Expenditures	**$ 1,192,550**	**$ 2,390,725**	**$ 2,730,572**	**$ 5,889,973**	**$ 5,294,833**	**$ 12,072,042**
Total Expenditures per Student			**$ 27,306**	**$ 58,900**	**$ 17,649**	**$ 40,240**
Annual Net Profit/(Loss)	**$ (1,192,550)**	**$ (2,390,725)**	**$ (930,572)**	**$ (3,689,973)**	**$ (299,833)**	**$ (5,967,042)**
Cumulative Net Profit/(Loss)	**$ (1,192,550)**	**$ (2,390,725)**	**$ (2,123,122)**	**$ (6,080,698)**	**$ (2,422,954)**	**$ (12,047,740)**
Average of High and Low Expenditures	**$1,791,638**		**$4,310,273**		**$8,683,437**	

IN RESIDENCE MODEL BUDGET

For the in-residence budget, the bulk of costs is derived from housing costs of hosting students on campus. We shortened the duration they stay on campus to just the second and third trimester, with the first trimester being completed online. This helped to offset some of the housing costs. We used the market rate of rent in the region in our calculation. We did not include the cost of leasing or buying a class building in this budget.

In-Residence Program Model	Phase 1		Phase 2		Phase 3	
	February 2018 - January 2019		February 2019 - January 2020		February 2020 - January 2021	
Description	Low	High	Low	High	Low	High
REVENUES						
Total Tuition & Fees	$ -	$ -	$ 1,800,000	$ 2,200,000	$ 4,995,000	$ 6,105,000
University Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Uruguay Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Inter-American Development Bank Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Corporate Contributions	$ -	$ -	$ -	$ -	$ -	$ -
Research Funding	$ -	$ -	$ -	$ -	$ -	$ -
Office Space Lease	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Revenue	**$ -**	**$ -**	**$ 1,800,000**	**$ 2,200,000**	**$ 4,995,000**	**$ 6,105,000**
EXPENDITURES						
Total Faculty Salaries & Benefits	$ 288,000	$ 544,000	$ 365,760	$ 738,400	$ 469,440	$ 997,600
Total Education Staff Salaries & Benefits	$ 140,800	$ 281,600	$ 288,512	$ 510,720	$ 733,696	$ 1,346,560
Total Consultants	$ 360,000	$ 620,000	$ 365,000	$ 635,000	$ 370,000	$ 640,000
Administrative Operational Expenses	$ 487,500	$ 1,015,000	$ 787,500	$ 1,470,000	$ 1,048,750	$ 1,805,000
Student & In-Residence Expenses	$ -	$ -	$ 772,650	$ 2,045,250	$ 2,310,300	$ 6,115,500
Faculty/TA In-Residence Expenses	$ -	$ -	$ 236,700	$ 876,690	$ 552,300	$ 2,045,610
Incubator Expenses	$ -	$ -	$ 51,067	$ 112,067	$ 147,267	$ 302,267
Research Investment	$ -	$ -	$ -	$ -	$ -	$ -
Adjusted Educational Support Expenses	$ 52,500	$ 116,250	$ 151,406	$ 236,675	$ 257,500	$ 347,500
Campus Facilities Lease/Management Fee	$ -	$ -	$ 40,000	$ 60,000	$ 40,000	$ 60,000
Equipment Leases	$ -	$ -	$ -	$ -	$ -	$ -
Scholarships	$ -	$ -	$ -	$ -	$ -	$ -
Total Expenditures	**$ 1,328,800**	**$ 2,576,850**	**$ 3,058,595**	**$ 6,684,801**	**$ 5,929,253**	**$ 13,660,037**
Total Expenditures per Student			**$ 30,586**	**$ 66,848**	**$ 19,764**	**$ 45,533**
Annual Net Profit/(Loss)	**$ (1,328,800)**	**$ (2,576,850)**	**$ (1,258,595)**	**$ (4,484,801)**	**$ (934,253)**	**$ (7,555,037)**
Cumulative Net Profit/(Loss)	**$ (1,328,800)**	**$ (2,576,850)**	**$ (2,587,395)**	**$ (7,061,651)**	**$ (3,521,648)**	**$ (14,616,688)**
Average of High and Low Expenditures	**$1,952,825**		**$4,871,698**		**$9,794,645**	

SUMMARY

When comparing the two models, the in-residence option requires additional staff resources and higher administrative expenses. Moreover, the in-residence model requires additional Faculty In-Residence Expenses. Finally, educational support expenses are also higher given that students will receive additional support in the in-residence option.

PROPOSED BUSINESS PLAN

After our first visit to Uruguay from 27 to 30 November to present the status of our proposed model and to meet with a wide variety of stakeholders in Uruguay, we understood the urgency of launching the program immediately with the ambitious goal of starting our first cohort by March 2019. For those reasons, we suggest the following plan, which we designed in collaboration with the client.

- Continued Development of Academic Program – this includes program framework, curriculum development, specialization research, education technology integration,
- University Partnership Building
- Student Recruitment
- Marketing and Outreach Strategy
- Program Deployment – Because of the small window of opportunity to launch and gain traction for LatAm CoLAB, we consulted with the clients and agree that launching both the hybrid program and the in-residence program will yield the most immediate results we need to determine areas of impact, effectiveness, and need for improvement. The initiative will also benefit from economies of scale, a larger sample cohort, and increased student engagement.

PROPOSED TIMELINE FOR FIRST THREE YEARS

2018

- Once strategic decisions are made, and new funding provided for first quarter, lock down university and other collaborators through signing of MOUs.
- Complete design of initial framework for program and curricula
- Focus on pre-launch activities, including human capital recruitment, sourcing of physical space, securing university partnerships, training of staff, and student recruitment.
- Market and recruit first cohort of LatAm CoLAB students.

2019

- Launch a first cohort of 100 students for each model: hybrid program and the in-residence program.
- Offer two specializations: Artificial Intelligence and Advanced Data Science
    - Both these specializations are not as resource intensive as the engineering or biological disciplines, and, thus, are easier to execute via an online platform
- Initiate collaborative efforts with corporate sponsors

2020

- Launch 2nd cohort of 200 students in each model: the hybrid & in-residence program
- Increase specializations from 2 to 3 – 4.
- Increase brand and marketing outreach for broader recruitment in the Latin American Region
- Prepare continuation plan

In order for this timeline to be executed on, strategic decisions must be made by the clients by no later than the very beginning of 2018, through the continued funding of planning and preparation by the consultants.

BUSINESS DEVELOPMENT

The status of our current business development is as follows. A list of the leading universities was compiled, using a number of different metrics, including national reputation, geographic diversity, history of innovation, history of collaboration, focus on the Latin American market, personal connections to the consultants, and other factors. The list is as follows:

Potential University Collaborators

1. Amherst College
2. University of Arizona
3. Arizona State University
4. Babson College
5. Boise State University
6. Boston University
7. Cal Tech
8. University of California - Berkeley
9. University of California - San Diego
10. University of Chicago
11. Colorado State University
12. Columbia University
13. Emory University
14. University of Florida
15. Harvard University
    a. Berkman Center
    b. Grad. School of Education
    c. School of Engineering
    d. Kennedy School
16. MIT
    a. Multiple units
17. University of Michigan
18. Michigan State University
19. New York University
20. Northeastern University
21. Penn State University
22. University of Pennsylvania
    a. Multiple units
23. Pepperdine University
24. Princeton University
25. Purdue University
26. Scripps Research Institute
27. Smith College
28. Stanford University
29. University of Texas System
30. Williams College

In addition, leaders at the two largest Massive Open Online Course (MOOC) providers, edX and Coursera, were contacted to discuss potential collaborative efforts related to the creation and delivery of content. These two organizations and multiple leaders at each of the above universities and colleges were sent the below materials. One brochure is was created as a broader overview of the project. The other brochure specifically targeted to universities.[27]

[27]Please note that some of the details have changed in the intervening weeks.

SAMPLE BROCHURES

Overview One Pager

University Participation One Pager

After exchanges of emails and conversations, in person meetings were held at seven of the above schools, in addition to phone conversations with 10 others. Given the short timeline, visits were rapidly planned to Boston and Philadelphia to meet with senior leaders at the academic, online, and international programs offices. Schools in these regions were targetted for meetings. Extensive conversations took place over a one week period near the end of November at schools including Boston Univrersity, Harvard, MIT, Northeastern University, and the University of Pennsylvania, MIT, Boston University Of the remainder, responses were received from nine others, and no leaders at those schools closed off the possibility of collaborating on this project. No responses were received from three schools.

A summary of some of those conversation with is as follows:

University of Pennsylvania

- Akiba met with Provost Wendell Pritchett
    - He just began in July 2017 and is looking to make an impact.
    - He is the first person of color at this level in the history of Penn and wants diversity to be one of his hallmarks.
- Akiba also met with the campus lead for innovation, Peter DeCherney.
    - Peter coordinates with all offices around campus on new initiatives.
- Also met with leaders at Pennovation and Wharton Executive Education
- All expressed general interest
- Second round meeting on 7 December, also with leaders from the extension school
- Akiba's Ph.D. is from Penn and he has asked his other contacts for additional introductions

Harvard University

- Akiba met with Hunt Lambert, Dean of the Extension School and top leader of campus innovation
    - Hunt is skeptical (as he always is) that Harvard is the right partner now, but did not rule it out.
    - They are in the midst of a presidential search right now
    - The most compelling argument for him was the diversity one
        - Harvard is under scrutiny for its affirmative action programs and is looking for something to change the terms of discourse.
    - They will follow but will likely not lead
    - Once we have an initial collaborator, especially if it is MIT, they will have another conversation.
    - There was appreciation for the overall model.
    - Akiba is a former associate dean at Harvard and can talk to others in the next round.

Massachusetts Institute of Technology

- Akiba met with group organized by Michael Rutter, senior advisor on policy and communications
    - They were impressed that representatives of the innovative LatAm CoLAB endeavor had already made in-roads at MIT through the IDB
- Akiba also met with Sanjay Sarma, vice president for open learning at MIT
- They are very open to next steps and await final word on the contours of the program and full agreement of both key parties on the stated goals.

- They are happy they we are not looking for the kinds of massive investments they have made in the past to construct entire campuses.
- They have many and actively cultivate corporate partners, and Sanjay in particular is a successful entrepreneur.

Northeastern University

- Met with Joseph Aoun, President
    - He introduced Akiba to his senior team, some of whom Akiba knew from their previous roles at Harvard and elsewhere.
    - Northeastern is perhaps the most innovative and – smartly and deeply – career focused school in the US right now
        - Ranked sixth in the US by US News and World Report (alongside ASU, Harvard, MIT, etc.) on metric of most innovative schools
    - Inner-city school with multiple campuses around the world and a sustained focus on diversity
        - Looking to expand in Latin America
    - Open to next round of conversations

Boston University

- Most early stage of university conversations
- Met with educational innovation team, led by Associate Provost and School of Business Professor Chris Dellarocas and Romy Ruukel, former program manager at edX now directing on-the-ground efforts at BU
- Strong interest in improving diversity quotient at still predominantly white, suburban school
- Akiba also met with leaders at the extension school/Metropolitan College

The consultants ceased to reach out to the schools in the second half of December, as next steps in the strategy were being discussed between the clients. In general, **universities will be far more likely to take next, determinative steps once decisions are made about the contours of the program, including a possible convening as well as the possible role of corporate collaborators, whose presence many take to be a key to the decision to participate.** While the consultants await decisions about strategy and further funding, the next formal follow-up step will be a campus visit by representatives of the IDB and the consultants in mid-January to meet with leaders at MIT, as well as at other Boston-based universities as well as with the MOOC provider, edX, where Dr. Covitz formerly served as vice president.

FOLLOW UP STRATEGY

REFLECTIONS ON URUGUAY VISIT

Our insights gained from our visit to Uruguay indicated to us that the country, and more broadly, Latin America has:

- Growing innovation ecosystem
- New approaches to learning (UTEC, UM)
- Visible political will to launch program
- Strong demand for the graduates of our proposed technical program
- Punta del Este is captivating, but underutilized

Our conclusion after visiting Punta del Este at the end of the trip, was that the opportunity is ripe for the LatAm CoLAB initiative, and that we need to show, not tell others about the project. But, we understand that there are still concerns:

- What are students willing to pay for this program?
- Is there enough interest from US universities to launch for 2019?
- What will it take to launch this program in 2019?
- How do we gain the credibility to push this project forward?

FOLLOW UP STRATEGY

Our proposed strategy is to address these concerns by capitalizing on the specific advantages of the project, while at the same time dispelling uncertainty.

Capitalize on our Advantages	**Dispel Uncertainty**
• Strong interest from ministry • Thriving innovation community • Strong demand for technical talent • Timing is ripe for program • Beauty of the underutilized area of Punta del Este	• Demonstrate visible interest from US Universities • Arrive at feasible pricing strategy for tuition • Develop first draft of university participation guidelines for feedback • Improve design of program model

Our suggested strategy for gaining university interest in collaborating with the LatAm CoLAB project, as well as securing commitment from universities, is to hold a convening of potential collaborating US Universities in Uruguay.

- Organize convening, working group, or exploratory committee to discuss project
- Invite interested US universities to Uruguay
- Show them opportunity, let them experience Punta del Este

- Give them opportunity to contribute ideas and feedback to project so they are invested

TRIPLE IMPACT OF THE CONVENING

Improves Design	**Increases Commitment**	**Gains Credibility**
• **Gather insight** from universities on what's most valuable to them • **Gain feedback** on our marketing and partnership strategy • **Collaborate to design** program or curriculum	• **Call to action** for universities to send representatives • **Feel invested** because they participated and co-designed program • **Experience and Envision** participation by being in Punta del Este	• **Demonstrates interest** of university participation • **Authentic engagement** between stakeholders • **Produce tangible outputs** for next phase

POTENTIAL CONVENING PROGRAMMING

- Three days to visit with stakeholders and tour important innovation grounds
- Working session on program design
- Feedback panel on marketing strategy
- Develop academic and/or curricular framework
- Brainstorm session on innovative ways universities can participate

OVERVIEW OF WORK

- Prepare programming materials for convening
- University outreach and securing attendance
- Design draft materials for feedback, including curriculum, tuition models, marketing materials
- Liaise with U.S. university reps for feedback on pre-work/post-work
- Develop willingness to pay analysis
- Continued program model design and development
- Manage event planning logistics

ESTIMATED CONVENING COST

In calculating the cost of the convening, we included round trip travel and accommodation to the potential US stakeholders, local transportation, meals, event space, and necessary supplies. We also included in our calculation, the cost of inviting local officials and stakeholders.

CONVENING BUDGET

Convening of US University Representatives		
Description	**Low**	**High**
University Representative Expenses	6 reps	8 reps
Airfare	$ 8,400	$ 20,000
Airport Transportation	$ 300	$ 600
Housing Montevideo	$ 3,600	$ 15,000
Housing Punta del Este	$ 1,200	$ 5,000
Meals	$ 1,200	$ 3,600
Refreshments	$ 60	$ 200
Meeting space	$ 2,500	$ 6,000
Local transportation	$ 360	$ 1,200
Convening Supplies	$ 120	$ 500
Per Diem	$ 6,000	$ 20,000
Total University Representative Expenses	**$ 23,740**	**$ 72,100**
Uruguayan Attendee Expenses	**6 UY**	8 UY
Meals	$ 300	$ 720
Refreshments	$ 60	$ 160
Local Transportation	$ 360	$ 960
Convening Supplies	$ 120	$ 400
Total UY Attendee Expenses	**$ 840**	**$ 2,240**
US Consultant Travel Expenses	**6**	6
Airfare	$ 8,400	$ 12,000
Airport Transportation	$ 300	$ 360
Housing Montevideo	$ 3,600	$ 9,000
Housing Punta del Este	$ 1,200	$ 3,000
Meals	$ 1,200	$ 2,160
Refreshments	$ 240	$ 480
Local transportation	$ 360	$ 720
Convening Supplies	$ 120	$ 300
Total US Consultant Expenses	**$ 15,420**	**$ 28,020**
Total Expenses	**$ 40,000**	**$102,360**

Convening Assumptions	**Low**	**High**
Number of University Representatives	6	10
Number of UY Attendees	6	8
Number of US Consultants (Akiba, Lisa, Event planner, 3 IDB reps)	6	6
Total Days	4	4
Airfare per person (round trip)	$ 1,400	$ 2,000
Airport Transportation per person	$ 50	$ 60
Montevideo Hotel per night	$ 200	$ 500
Nights in Montevideo	3	3
Punta del Este per night	$ 200	$ 500
Nights in Punta del Este	1	1
Meals per person per day	$ 50	$ 90
Refreshments per person per day	$ 10	$ 20
Other local transportation	$ 60	$ 120
Per diem	$ 250	$ 500
Convening Supplies per person	$ 20	$ 50

PROJECTED OUTPUT

We believe the projected output of the convening to far outweigh the initial costs. There are several strategic advantages to holding such a convening, such as:

- Increased visibility and credibility for project
- Opportunity to demonstrate viability of project
- Stronger indications of university commitment
- Meetings between stakeholders
- Input on program/curriculum design elements
- Feedback for marketing strategy
- Runway for securing MOU's from universities

NEXT STEPS

As we discussed our vision with the client, we understood that while the convening could be beneficial, there was a stronger desire to see a more robust business plan, complete with a go to market strategy. This, the consultants are happy to do in a second phase of this project. Because we understand the urgency of delivering a pragmatic and feasible business model that is executable, we will leverage our networks to provide real university feedback to inform our strategic model and approach. As the business plan is being developed, we will also concurrently seek feedback from potential university partners to gauge the feasibility of the proposed models and adjust accordingly. This will be done in collaboration with LatAm CoLAB stakeholders through continued regular communication, check-ins, and feedback.

Potential activities in phase two of this project could include but are not limited to:

1. Preparing sample program materials for initial marketing feedback
2. Creating a landing page to gauge student interest in the program
3. Sending another round of surveys based on sample program
4. Engaging additional universities to send representatives to Uruguay for a Conference
5. Outlining a working group to develop the curriculum and solicit interest from potential university partners and professors
6. Deeper research analysis: willingness to pay, constraints, survey
7. Defining detailed university participation – commitments and incentives
8. Drafting initial requirements for buildings
9. Curriculum: Identify most in-demand and impactful disciplines to pursue as specializations, and draft initial syllabus as a working document
10. Proposing a governance structure proposal and strategy
11. Outlining an initial marketing strategy with a brainstorm of ideas if time allows

The goal at the end of these activities is to provide a working model in which stakeholders and decision makers can act on.

CONCLUSION

The consultants strongly recommend that plans for LatAm CoLAB move quickly forward in the first quarter of 2018. The academic program needs to be fully developed and developed rapidly. This includes completing the design of the program framework, developing the curriculum, research on specializations, and integrating the technology necessary to create a distance platform to deliver the education to a regional audience. These processes would take place hand-in-hand with continuing conversations with potential university collaborators. In addition, next steps need to be quickly taken in accurately gauging Uruguayan and Latin American student interest in participating in LatAm CoLAB.

Finally, the consultants are committed to the completion of this project, through its design and implementation. While the consultants were initially brought onto this program to provide design elements and lay out a path forward, Dr. Covitz especially is engaged in the model that we collaboratively created with the clients and would like to focus on this project full-time. This could include Dr. Covitz spending significant and ongoing periods of time in Uruguay. Ms. Lee is also dedicated to providing superior design and implementation to ensure completion of this project to its full fruition.

APPENDICES

Project Background & Secondary Research:

1. Original Concept Note
2. Research on Latin American Educational Context
3. Legal Requirements for Latin American University Credentials
4. Research on Double-Degree Models in Latin America
5. Research on Start-up Models (non-degree models)

Primary Research:

6. Survey research methodology and results
7. One pager: Overview
8. One Pager: Universities

Proposed Program Model:

9. Detailed financial models & assumptions: in-residence and hybrid model

LatAm
CoLAB

1. Original Concept Note

SPANISH VERSION

ADY BEITLER, INTER-AMERICAN DEVELOPMENT BANK

URUGUAY GLOBAL

1. RESUMEN EJECUTIVO

Este informe recomienda que Uruguay realice los esfuerzos necesarios para convertirse en el primer país de América Latina y el Caribe en contar con una universidad de élite global, que sea capaz de atraer estudiantes internacionales, con el objetivo de posicionarse como centro de excelencia regional y mejorar su capacidad de exportar bienes y servicios al mundo. Esta recomendación se apoya en tres aspectos.

En primer lugar, hay un contexto internacional favorable causado por las crecientes políticas nacionalistas de países como Estados Unidos e Inglaterra, y el crecimiento de los mercados emergentes, que está llevando a las universidades de élite internacional a buscar agresivamente nuevos flujos de alumnos internacionales. Y todavía ninguna universidad de este corte se ha instalado en América Latina.

En segundo lugar, existen antecedentes que indican que países con características comparables a las de Uruguay – por ejemplo, Singapur o los Emiratos Árabes – han sido exitosos en la medida que se presentaron como lugares amigables a la inversión extranjera con capacidad de atraer estudiantes de países vecinos con mercados gigantes, como India y China. Para Uruguay, éste sería el caso de Brasil, Argentina, Colombia y Venezuela, quienes envían y reciben más de 200.000 estudiantes internacionales por año.

Finalmente, se considera que Punta del Este es un centro adecuado por su infraestructura, su capacidad ociosa durante el año lectivo, y su reconocimiento general como un lugar con buena calidad de vida.

Si bien se recomienda realizar un estudio más detallado de los costos y beneficios del proyecto, inicialmente se estiman beneficios tangibles e intangibles de importante magnitud. En primer lugar, se destaca el impacto en la economía local expresado en salarios, compras de bienes y servicios, y turismo. Pero por sobre todo, se refiere a los beneficios intangibles de aumento del conocimiento y la capacidad innovadora del país, a través de la transferencia de tecnología y conocimiento. Finalmente, la atracción de una universidad de élite internacional reportaría a Uruguay enormes beneficios de “marca país”.

El proyecto que aquí se plantea parte de la base que sólo una universidad de alto prestigio internacional va a ser capaz de atraer estudiantes internacionales – evitando, por lo tanto, disputas con las universidades locales, en la medida que apunta a un mercado distinto – y plantea la necesidad de otorgar incentivos regulatorios robustos. Además de exoneraciones fiscales, siguiendo mejores prácticas internacionales, se considera necesario otorgar facilidades migratorias para los estudiantes y prestaciones directas en especie, tales como transporte especial y personal dedicado a asistir a los estudiantes con la búsqueda de vivienda y la apertura de una cuenta bancaria. Finalmente, se recomienda que el Estado uruguayo utilice los servicios de la universidad para capacitar funcionarios en industrias estratégicas para el país, tales como la educación pública. Se trata de una oportunidad valiosa, en la medida que la presencia de la universidad en suelo uruguayo hace la alternativa más viable que el envío de los funcionarios al extranjero.

Al final de la presentación se recomiendan siguientes pasos, que incluyen la realización de análisis más detallados de costo-beneficio y demanda; la formación de una comisión que cuente con fuerte respaldo político, reflejando así un compromiso de país, para que visite los países que han sido exitosos y luego entable negociaciones con las universidades que se pretende atraer; y la realización de esfuerzos de política pública y regulatorios, para facilitar la instalación de la universidad y la migración de los estudiantes internacionales.

2. LA OPORTUNIDAD

2.1. Datos demográficos

El mercado de estudiantes internacionales ha experimentado un crecimiento extraordinario en la última década, gracias a las ganancias de eficiencia en el transporte y las comunicaciones, y el crecimiento sostenido de los países emergentes. Así, el tráfico de estudiantes internacionales en el mundo aumentó más de 50% entre 2005 y 2015, pasando a más de 5 millones.[1]

Gracias al reconocimiento de sus universidades locales, Estados Unidos es el destino preferido por los estudiantes internacionales, abarcando más del 20% del mercado. Luego vienen Inglaterra, Australia y Canadá. Entre los países que más envían estudiantes al exterior, los líderes son China e India, y en nuestra región México y Brasil figuran entre los primeros 10 del mundo.[2] En América del Sur, junto con México y Brasil, Colombia y Venezuela están dentro de los 25 países que más estudiantes envían a Estados Unidos por año.[3]

El rezago de América Latina como destino para estudiantes internacionales se debe, en buena medida, a que carece de universidades de élite internacional. De hecho, de acuerdo a rankings generalmente aceptados, dentro de las 100 mejores universidades del mundo sólo hay una de América Latina – la Universidad de Buenos Aires, en el puesto 85. Dentro de las 200 mejores, la Universidad de San Pablo figura en el puesto 120, la Universidad Nacional Autónoma de México en el 128 y la Pontifica Universidad Católica de Chile en el 191.[4]

Estas cifras reflejan dos tendencias importantes. Primero, que para atraer estudiantes internacionales es necesario contar con universidades de alto prestigio mundial. Y segundo, que los estudiantes vendrán de mercados grandes y en crecimiento.

2.2. La ola de expansión internacional

El mercado de educación superior está experimentando una competencia feroz, proveniente de varios frentes: desde la crisis económica mundial del 2009 en adelante, se vieron recortes a los subsidios públicos y donaciones privadas que hicieron que el retorno a la inversión educativa superior bajara;[5] la globalización del mercado (es decir, la aparición de universidades de varios países compitiendo por alumnos del mismo país); y finalmente la masificación de la educación online.[6]

En este contexto, las Universidades de Estados Unidos e Inglaterra, principalmente, se han lanzado al mundo en una ola de internacionalización que se conoce como de "segunda generación", luego de la primera sucedida en Japón en la década de los 80. En esta tendencia, universidades de prestigio mundial se han lanzado agresivamente a buscar los mercados de Asia y Medio Oriente. Si bien las universidades han demostrado comportamientos similares a los de cualquier firma multinacional – buscando maximizar la generación de ingresos operativos – la elección de Asia y Medio Oriente responde a motivos distintos.

En Asia, las Universidades buscan el inmenso volumen de estudiantes con capacidad económica, principalmente en China e India, y también en países más chicos con capacidad de atraer estudiantes de estos mismos países, como el caso de Singapur.[7] Así, por ejemplo, en China se han instalado John Hopkins University y New York University, en Corea George Mason University, en India Virginia Tech, y en Singapur están Cornell, Duke, New

[1] OECD, Education at a Glance, 2016 (disponible aquí)
[2] Institute of International Education, 2016 (disponible aquí).
[3] Institute of International Education, 2016 (disponible aquí).
[4] Top Universities QS (disponible aquí)
[5] The Economist (disponible aquí)
[6] Bush, Jeb and Best, Rady, Higher Ed in 2018 (disponible aquí)
[7] E. Han Kim, Min Zhu (2010) Universities as Firms: The Case of US Overseas Programs, in National Bureau of Economic Research, American Universities in a Global Market, University of Chicago Press.

York University y University of Chicago. La desproporcionada preferencia por un país pequeño como Singapur para instalar campus universitarios de élite, para atraer justamente estudiantes chinos e indios, refleja una lección clave: que las universidades buscan países con clima de negocios atractivos y regulaciones amigables para facilitar su acceso al mercado. Tal como lo hacen las empresas multinacionales.[8]

El otro gran epicentro se encuentra en Medio Oriente, principalmente Qatar, Abu Dhabi y Dubai. Pero si bien aquí las universidades (que, en muchos casos, son las mismas que se instalan en Lejano Oriente) también buscan un beneficio económico directo, vienen por un motivo inmediato distinto: los enormes subsidios económicos que reciben de los estados. Así, por ejemplo, la New York University recibió una oferta de US$ 50 millones por instalarse en Dubai (sin contar gastos administrativos y la construcción del campus).[9] La misma oferta recibió John Hopkins por instalar un centro de investigación de biodiversidad en Singapur.[10] Otro ejemplo notable es el de la Universidad de Cornell, que recibió US$ 750 millones de la Qatar Foundation para armar la facultad de medicina en la Education City de Qatar.[11]

3. ¿POR QUÉ HACERLO?

3.1. Beneficios de atracción de universidades internacionales

La atracción de universidades de alto prestigio internacional reporta beneficios importantes para un país en vías de desarrollo. En primer lugar, se destaca la capacidad de atraer estudiantes de todas partes del mundo, que dejan un beneficio económico directo tangible. Así, por ejemplo, de acuerdo al Instituto Internacional de Educación, los más de 1 millón estudiantes internacionales que visitaron Estados Unidos en el año lectivo 2015/2016 dejaron una contribución directa de casi 36 mil millones de Dólares.[12] Los proyectos de educación superior tienen además un efecto multiplicador, que si bien debe calcularse caso a caso y con rigor, [13] generalmente se puede decir que tienen dos tipos de incidencias.

En primer lugar, está el impacto en la economía local a través del desarrollo de la infraestructura, la actividad económica de profesores, alumnos y empleados de la universidad, expresado en salarios, compras de bienes y servicios, y turismo. Si bien existen grandes discrepancias metodológicas entre economistas y se recomienda un estudio detallado caso a caso, el American Council of Education lo ha llegado a calcular de 1:7, es decir, que por cada dólar que se invierte en una institución de educación superior, existirían siete dólares de retorno económico en la economía local. [14]

Pero por sobre todo, los efectos más importantes de la instalación de una universidad de élite internacional en una ciudad como Punta del Este, son aquellos beneficios intangibles que hacen al aumento del conocimiento, la productividad y capacidad innovadora del país, a través de la transferencia de tecnología y los avances en investigación, y también la creación de un espacio verdaderamente inter-cultural.[15] Esta transferencia de

[8] Kim, Zhu, Ibid.
[9] Zvika Krieger, "An Academic Building Boom Transforms the Persian Gulf", *Chronicle of Higher Education*, 28 de Marzo de 2008.
[10] Martha Ann Overland, "Singapore to Close John Hopkins Biomedical Center", *Chronicle of Higher Education*, 28 de Marzo de 2008.
[11] Katherine Mangan, "Cornell's Medical School Will Open Degree Granting Branch in Qatar", *Chronicle of Higher Education,* 20 de Abril de 2011
[12] Disponible aquí. Esta suma contabiliza el gasto total de personas dependientes de los estudiantes, que permanecieron en el país con ellos.
[13] Siegfried, J., et al (2006) "The Economic Impact of Colleges and Universities", Working Paper No. 06-W12, Department of Economics, Vanderbilt University (disponible aquí)
[14] Caffry, J. and Isaacs, H. H. (1971), Estimating the Impact of a College or University on the Local Economy. Washington, DC: American Council of Higher Education.
[15] Ver, por ejemplo, un reciente estudio realizado en Oklahoma City en este sentido, disponible aquí.

conocimiento podría aprovecharse para la capacitación de funcionarios del Estado en industrias estratégicas para el país, como la educación pública. Esta valiosa opción sería inviable si se pensara en capacitar a los funcionarios en el extranjero. Finalmente, para un país pequeño y emergente como Uruguay, la atracción de una universidad de élite internacional reportaría enormes beneficios de "marca país", reforzando su prestigio como un país serio, ambicioso y de avanzada dentro de América del Sur.

3.2. Punta del Este como destino

Punta del Este es un destino ideal para establecer un campus universitario de élite internacional.

En primer lugar, porque no existe un antecedente similar en América Latina[16] y el mercado latinoamericano es tremendamente atractivo tanto para Estados Unidos como para Inglaterra. Considérese solamente que hoy día América Latina es el segundo mercado de exportación para Estados Unidos como país, y que existen casi 53 millones de latino-descendientes viviendo en el país, convirtiéndolo en el segundo país hispanoparlante del mundo, detrás de México.[17] Y en el caso de Inglaterra, es fácil imaginarse a universidades de élite como Oxford, Cambridge o la London School of Economics preocupadas por abrir nuevos mercados, ante la incertidumbre migratoria generada por su inminente salida de la Unión Europea.

En segundo lugar, Punta del Este cuenta con reconocimiento internacional y una infraestructura de calidad, que está ociosa durante el año lectivo (marzo – diciembre) y que hace competitiva a la ciudad en materia de costos de alojamiento. Asimismo, presenta ventajas en materia de seguridad con respecto al resto de la región.

Finalmente, Uruguay como país tiene las características de buen clima de negocios, estabilidad y a la vez flexibilidad propia de un país chico, que lo hace un centro ideal para atraer estudiantes de la región, como Brasil, Argentina, Colombia y Venezuela. En este sentido, lo ubica en una posición estratégica similar a la de Singapur en Asia.

3.3. Hipótesis del mercado potencial

Sin perjuicio de la necesidad de realizar un estudio empírico de mercado para evaluar la demanda potencial de este proyecto, se ofrecen aquí algunas reflexiones para facilitar la consideración inicial de la idea.

Por la proximidad geográfica y el prestigio del que goza Punta del Este – y Uruguay como país – los candidatos naturales a poblar una ciudad universitaria en Punta del Este son estudiantes de la región. Siguiendo estadísticas de migración a Estados Unidos, los principales destinos deberían ser Argentina, Brasil, Colombia y Venezuela. Sólo para ofrecer ideas aproximadas de la enorme cantidad de alumnos que este mercado significa, alcanza con mencionar que entre el 2014 y 2016, Argentina, Brasil, Colombia y Venezuela enviaron a Estados Unidos más de 80.000 personas.[18]

Adicionalmente, dada la importancia del mercado latinoamericano para Estados Unidos, es razonable pensar que las Universidades de élite del país tendrán un incentivo para ofrecer programas de intercambio ("semester abroad") para su estudiantes locales en Uruguay. Así, por ejemplo, la Universidad de Nueva York está ofreciendo un centro académico en Buenos Aires, Argentina.[19]

Finalmente, existe una oportunidad adicional de atraer estudiantes de otros países que vienen a universidades de América del Sur. Así, por ejemplo, Argentina recibe más de 40.000 estudiantes extranjeros por año, y Brasil

[16] Florida International University está en Panamá, y Costa Rica está trayendo una universidad estatal de Texas, pero se trata de una universidades de prestigio bajo y menor nivel que el que se pretende atraer para generar demanda de estudiantes internacionales.
[17] Disponible aquí.
[18] Institute of International Education (disponible aquí)
[19] http://www.nyu.edu/global/global-academic-centers/buenos-aires.html

más de 20.000 extranjeros.[20] Si solamente existen tres universidades latinoamericanas – la Universidad de San Pablo, la UNAM de México y la Católica de Chile – que son competitivas entre las 200 mejores del mundo, es razonable pensar que si Uruguay atrae una universidad de las 20/25 mejores del mundo, podría atraer parte de esa demanda a Uruguay.

4. SIGUIENTES PASOS

Basado en mejores prácticas internacionales, la atracción de una universidad de élite internacional conllevaría un proceso estimado de dos años de duración, que requiere completar las siguientes etapas:

Realización de plan de negocios. El primer paso que se debe dar es comprobar las hipótesis que aquí se plantean, mediante un plan de negocios que refleje un estudio de demanda empírico y detallado. Para ello, se debe conformar un equipo interdisciplinario que sea capaz de estudiar:

- la diferencia de costos que existe entre la alternativa de estudiar en Estados Unidos y Punta del Este, lo cual implicaría un estudio de costos de la educación y la vida en ambos lados;
- una estimación del número y situación socioeconómica del grupo de estudiantes latinoamericanos que estarían dispuestos a salir de su país para estudiar, y de cuánto dinero estarían dispuestos a pagar por un título de una universidad norteamericana en Punta del Este;
- una visita oficial (equipo de proyecto y representante del gobierno) a países como Singapur y Qatar, para conocer más en detalle cómo fue que lograron atraer estas Universidades;
- un análisis de la regulación existente en materia de habilitación de instituciones terciarias en Uruguay, y una comparación con las mejores prácticas internacionales en la materia.

Parte de estos estudios se podrían pagar con el Programa de Promoción de Servicios Globales que el BID y el Gobierno de Uruguay tienen actualmente en ejecución.

Otorgamiento de prioridad política y formación de comisión de alta jerarquía. Como se dijo, para que este proyecto tenga éxito es fundamental darle el más alto apoyo institucional y político, y reflejar un compromiso como país. Ello implica la conformación de un grupo de trabajo con personas en Uruguay, Estados Unidos e Inglaterra, que sean capaces de negociar con estas universidades en nombre del Gobierno uruguayo.

De acuerdo a experiencias en programas comparables en países como India e Israel, el diálogo normalmente se comienza con una carta firmada por el Presidente de la República al Rector de la Universidad que se quiere atraer, y una visita de uno o dos días a cada institución para presentar el proyecto. No obstante, este trabajo debe hacerse de manera confidencial, y por un tiempo sostenido de uno o dos años. Cuanto más se salga a la prensa a hacer anuncios, mayor es el compromiso que se asume, mayor la presión, y menor la capacidad de negociación con las universidades extranjeras. Para ello, es esencial lograr un balance adecuado entre el apoyo político e institucional, y la necesidad de confidencialidad.

Planificación regulatoria. Desde el primer momento, se debe preparar un paquete de beneficios que el país estaría dispuesto a otorgar a la Universidad que decida instalarse en Punta del Este. Se piensa aquí en la creación de un marco legal especial como se ha hecho con la zona franca de UPM, por ejemplo. Se piensa también en facilidades migratorias para los estudiantes, con acceso rápido a vivienda, servicios de búsqueda de trabajo, transporte desde y hacia la universidad, y un proceso ágil de apertura de cuenta bancaria, para que la transición entre su país y Punta del Este sea eficiente.

[20] http://www.clarin.com/sociedad/anos-aumento-cantidad-estudiantes-extranjeros_0_914308640.html; http://terra2012.com.br/2011/04/cresce-numero-de-estudantes-estrangeiros-no-brasil/

LatAm
CoLAB

2. Research: Latin American Educational Context

LORENA BUSTAMANTE

Since the beginning of the 20th century, schooling has strengthened considerably in the Latin-American region, achieving an average of nine years of formal education. Nowadays, the region has reached 96% enrollment in primary education, 75% secondary school enrollment and it has strengthened access to preschool and higher education.[1]

The expansion of formal schooling has been fueled by significant increases in both public and private spending on education. Latinamerican countries spend, on average, 5% of their GDP on education and skills programs. The average spending on the region is comparable to most developed nations and, similar to OECD countries, expenditure is higher in primary and secondary education. Furthermore, Argentina, Chile, Brazil, Uruguay and Paraguay ("Southern Cone" match the level spent by the US, while Bolivia, Ecuador, Colombia and Venezuela ("Andean Countries") have already surpassed this level.[2]

Table 1: Government Spending on Education by Level (select countries)

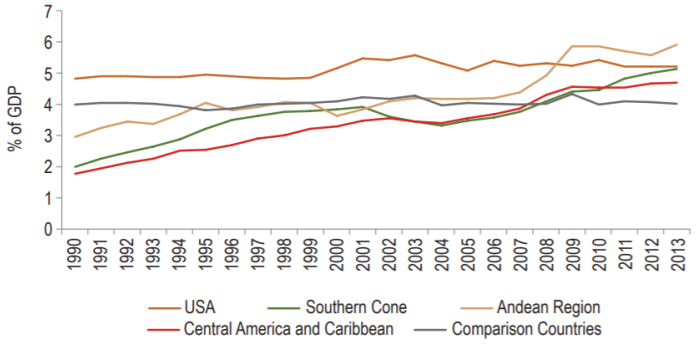
	Government expenditure in education as % of GDP				
Country	Total	Preprimary	Primary	Secondary	Tertiary (college)
Argentina	5.3%	0.4%	1.6%	2.2%	1.1%
Belize	6.2%	0.1%	2.7%	2.6%	0.9%
Bolivia	6.5%	0.4%	2.1%	2.4%	1.7%
Brazil	6.1%	0.4%	1.8%	2.6%	1.2%
Chile	4.6%	0.7%	1.4%	1.5%	1.0%
Colombia	4.9%	0.3%	1.7%	1.8%	1.1%
Costa Rica	7.6%	0.5%	2.9%	1.9%	2.3%
Dominican Republic	2.6%	0.2%	1.3%	0.9%	0.2%
Ecuador	4.8%	0.7%	2.1%	0.8%	1.2%
El Salvador	3.8%	0.4%	1.8%	1.2%	0.5%
Guatemala	2.8%	0.3%	1.7%	0.5%	0.3%
Honduras	5.9%	0.4%	2.9%	1.5%	1.0%
Jamaica	6.3%	0.2%	2.3%	2.0%	1.1%
Mexico	5.3%	0.5%	2.0%	1.7%	1.1%
Nicaragua	4.5%	0.2%	1.9%	0.6%	1.3%
Panama	3.3%	0.1%	1.1%	1.0%	1.0%
Paraguay	5.2%	0.3%	2.0%	1.7%	1.2%
Peru	3.7%	0.6%	1.4%	1.1%	0.5%
Uruguay	4.5%	0.5%	1.0%	1.6%	1.4%
Venezuela	7.5%	1.0%	2.9%	1.6%	2.0%
Latin America and the Caribbean	5.1%	0.4%	1.9%	1.6%	1.1%
Comparison Countries	3.8%	0.4%	1.3%	1.5%	0.8%
USA	5.1%	0.3%	1.6%	1.8%	1.4%
OECD	4.9%	0.5%	1.3%	1.9%	1.2%

Source: WorldBank – Education Statistics and Volman (2016). Note: The year closest to 2014 was chosen for each country from the information available from 2009 to 2014. Countries included in comparison countries are: Albania, Armenia, Bulgaria, Hungary, Indonesia, Kazakhstan, Latvia, Malaysia, Morocco, Philippines, Poland, Romania, and Thailand.

Source: Busso, Cristia, Hincapié, Messina, Ripani (2017) – pg. 104

[1] Busso, Cristia, Hincapié, Messina, Ripani (2017)
[2] Ibid., (2017)

Figure 1: Government Expenditure on Education

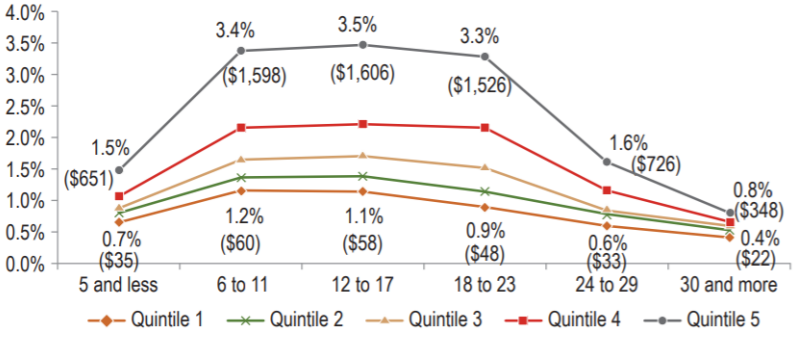


Source: Authors' calculations based on World Bank Indicators and Volman (2016). Note: Countries are grouped as follows: Andean Region: Bolivia, Colombia, Ecuador, and Venezuela. Central America and Caribbean: Barbados, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, and Trinidad and Tobago. Southern Cone: Argentina, Brazil, Chile, Paraguay, and Uruguay. Comparison Countries: Albania, Armenia, Bulgaria, Hungary, Indonesia, Kazakhstan, Latvia, Malaysia, Morocco, Philippines, Poland, Romania, Thailand, Tunisia, and Turkey. When data is missing, it was linearly interpolated using the closest two data points. Other points were imputed using data on countries where the correlation was higher than 0.8.

Source: Busso et al., (2017) – pg. 103

In addition to government, families also spend significant amounts on education. The average Latin American household spends 6.5% of its total budget on skills development; almost 1% more than the average American household (5.8%). However, this spending varies widely by age and socioeconomic level. A household in the fifth quintile of the income distribution in the Latin America and the Caribbean (LAC) region spends about ten times more than a household in the first quintile. Likewise, during infancy, high-income households spend twice as much as low income households on skills development, and this gap widen during childhood, adolescence, and early adulthood.[3]

Figure 2: Average Private Expenditure by Age and Income Level in Latin America and the Caribbean (As a percentage of household expenditure/PPP adjusted US$2014)



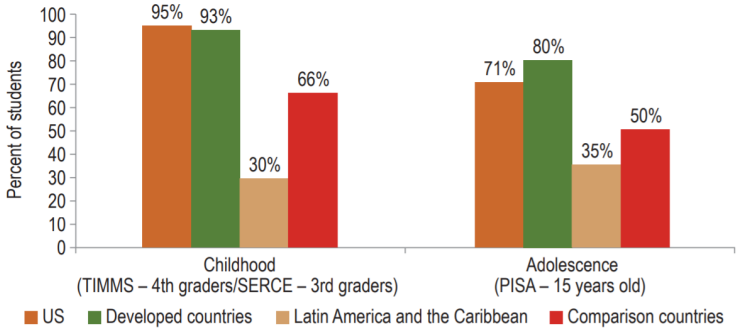
Source: Acerenza and Gandelman (2016).
Note: Latin American and Caribbean average is calculated as the weighted mean of countries by population size. It includes data on Bahamas, Brazil, Bolivia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay. Expenditure survey dates range from 2003–2004 (Bolivia) to 2014 (Mexico).

Source: Busso et al., (2017) – pg. 61

[3] Busso et al., (2017)

Analyzing the high private spend on education in conjunction with the high proportion of students attending private school in Latin America (22% vs. 8% in the United States) suggests that that high private expenditure on education in the region may be explained as a means for families to compensate for low quality public schools.[4] This also helps explain the disconcerting reality of the LAC region where, despite high expenditure on education and skills programs, Latin-America severely lags in terms of skills accumulation. At the elementary level, 70% of Latinamerican 4th graders are not able to add and subtract whole numbers, recognize geometric shapes or understand maps, simple bar graphs and tables, as exposed by the International Mathematics and Science Study (TIMMS). Similarly, at the secondary level, PISA results reveal that 60% of the 15-year-olds in Latinamerica are unable to demonstrate basic math skills for their grade level.[5]

Figure 3: Percentage of Students that Achieve at Least the Low Benchmark in Math on International Tests



Source: PISA and authors' calculations using TIMSS 2007 and SERCE 2006.
Note: To equate low benchmark rates across SERCE and TIMSS participating countries, the authors execute a crosswalk between the two tests by identifying levels of performance on SERCE that yield equivalent percentage of Colombian students meeting the TIMSS low benchmark (400 points). Low benchmark TIMSS: Students have some basic mathematical knowledge. Low performers PISA: cannot use basic algorithms, formulas, procedures or conventions to solve problems involving whole numbers. Countries in each category are grouped as follows: TIMMS/SERCE – (Latin America and the Caribbean) Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay. (Comparison countries) Algeria, Armenia, Georgia, Hungary, Kazakhstan, Latvia, Morocco, and Tunisia. (Developed countries) Australia, Austria, Denmark, England, Germany, Hong Kong, Italy, Japan, Netherlands, New Zealand, Norway, Scotland, Singapore, and Sweden. PISA – (Latin America and the Caribbean) Brazil, Chile, Colombia, Dominican Republic, Mexico, Peru, and Uruguay. (Comparison Countries) Albania, Algeria, Bulgaria, Croatia, Georgia, Hungary, Indonesia, Latvia, Macedonia, Montenegro, Poland, Romania, Thailand, Tunisia, and Turkey.

Source: Busso et. al., (2017) – pg. 52

This accumulation of deficient skills across the lifespan negatively affects adult productivity. For instance, in Chile, the only Latin American country that participated in the OECD's 2015 Programme for the International Assessment of Adult Competencies (PIACC), only 2% of adults meet the highest levels of literacy and only 38% are capable of performing tasks that require two or more steps involving the calculation of whole numbers, decimals, percentages and fractions.[6]

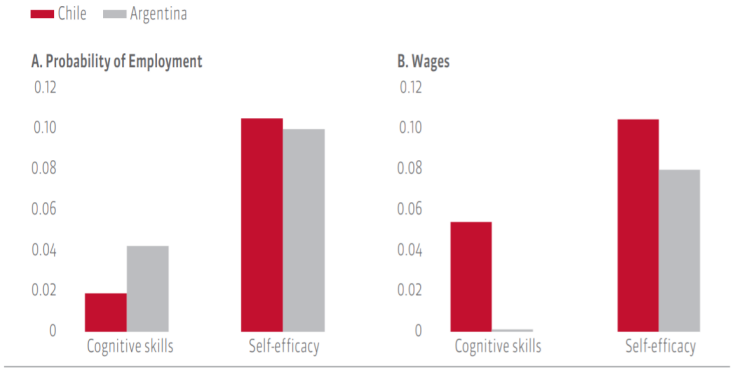
As a result, in the LAC region, more than in any other region in the world, companies are not able to meet their needs. According to the World Bank Enterprise Surveys, 36% of LAC firms

[4] Busso et al., (2017)
[5] Ibid., (2017)
[6] Ibid., (2017)

indicate that they struggle to find an adequate workforce, compared to the global average of 21% and the OECD average of 15%. More specifically, employers indicate that socio-emotional skills are more difficult to obtain in the LAC region. This is particularly troubling as firms reveal that they value socio-emotional over technical or industry-specific knowledge.[7] Even Google, the tech giant, has indicated that of the five attributes required from all employees (learning ability, emergent leadership, humility, ownership and expertise), expertise is the least important.[8]

The Skills and Trajectories Survey (STS) administered in Chile (2008) and Argentina (2010) measured four skills: cognitive, socio-emotional, metacognitive and self-efficacy. Cognitive refers to intellectual abilities, socio-emotional include social and leadership skills, metacognitive encompass organizational and cognitive tasks, and self-efficacy measures the degree to which a person perceives him/herself as a good student/worker. The analysis of STS reveals that cognitive skills are not closely correlated with the three socio-emotional skills. By contrast, the three socio-emotional skills are highly correlated. Moreover, the study confirms that socio-emotional skills play a key role in better labor-market outcomes, as young people who perceive themselves as effective workers or students are more likely to be employed and earn higher wages.[9]

Figure 4: Association Between Selected Skills and Employment Outcomes (workers aged 25-30)



Source: Authors' calculations based on STS survey results (2008a e 2010b).
Note: The estimates were obtained with a Probit model of employment and log wages as dependent variables, respectively. Explanatory variables include age, gender, father's education, mother's education, family income, skills levels (without controlling for level of education of the individual). In both cases, individuals who were in school at the time of the survey were excluded from these regressions.

Source: Bassi, Busso, Urzúa, Vargas (2012). Pg. 16

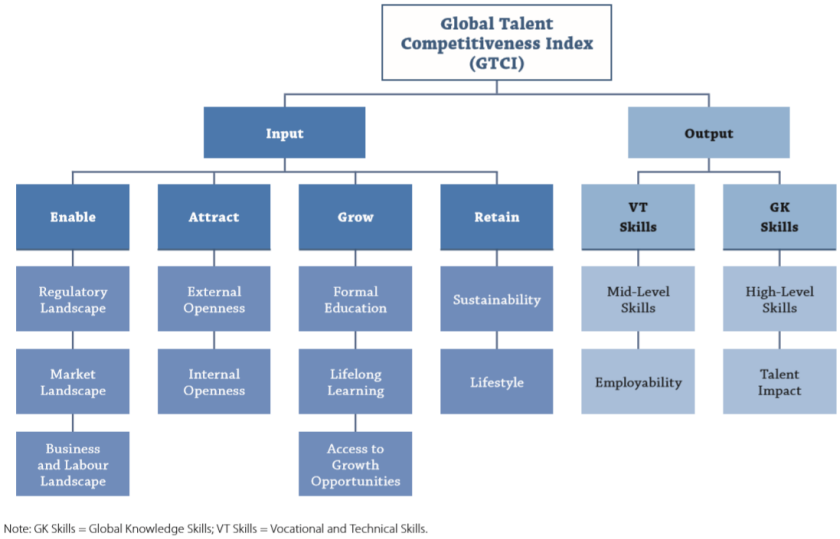
David Deming, professor at the Harvard Graduate School of Education, also ratifies that the labor market rewards individuals with strong social and interpersonal skills. Nevertheless, although socio-emotional skills are important, his research highlights that, since 1980, employment and wage growth have been especially strong in jobs requiring both cognitive and high social skills. Thus, when it comes to skills, the duality of developing both specialist and social/collaborative skills is very important.[10] Technical skills PLUS social competence are

[7] Salazar-Xirinachs (2015)
[8] Lanvin & Evans (2016)
[9] Bassi, Busso, Urzúa, Vargas (2012)
[10] Lanvin & Evans (2016)

crucial in the talent pool profile since innovation increasingly stems from teamwork.[11] The current labor market requires workers with specialist skills and the ability to collaborate with others from different domains[12].

In this regard, the Global Talent Competitiveness Index (GTCI) is an annual benchmark report published by INSEAD Business School, Adecco Group and the Human Capital Leadership Institute of Singapore to measure the country's abilities to compete for human capital based on six key pillars: "enable", "attract", "grow", "retain" talent, and their capacity to develop both "vocational and technical skills", as well as highly trained individuals ("global knowledge skills").

Figure 5: The Global Talent Competitiveness Index (GTCI) 2017 Model

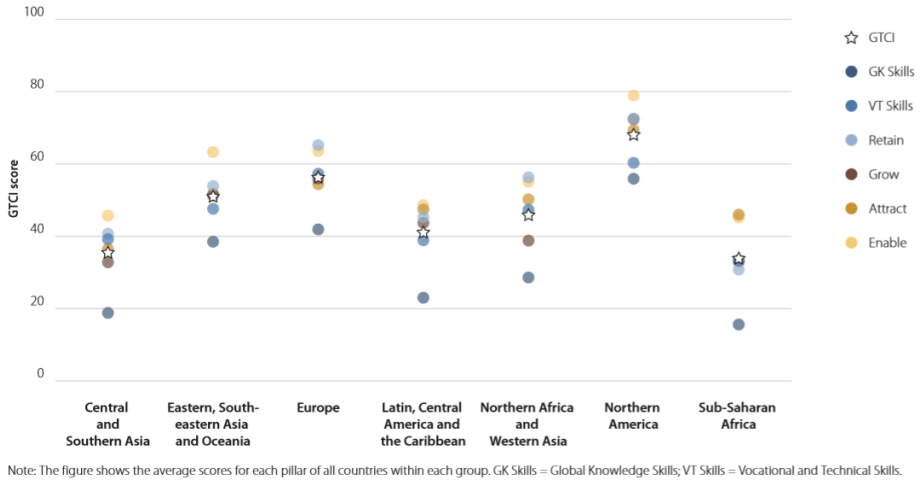


Source: Lanvin & Evans (2016) – pg. 10

In the 2017 edition, the Latin American region, on average, scored low on the GTCI Index, surpassing only the Central and Southern Asia and Sub-Saharan Africa regions. In the ranking, the highest Latin American country featured is Chile (#34) and the lowest is Venezuela (#105), out of 118 total countries ranked globally. [13] In general, the region presents two overall weaknesses: informal work and overall skills shortage.[14] In addition, there is a predominant cultural preference for social sciences and humanities. Likewise, the LAC region does not have a clear vision and/or public policies to develop high-technology sectors. Finally, entrepreneurial talent is relatively scarce in the LAC region. [15] Addressing these human capital and skills gaps would offer high returns since it responds to five of the key challenges in the region: slow productivity growth, low innovation rates, inequality, labor informality and social exclusion.[16]

[11] INSEAD (2017)
[12] Lanvin & Evans (2016)
[13] Ibid., (2016)
[14] Making Cents International (2017)
[15] Salazar-Xirinachs (2015)
[16] Ibid., (2015)

Figure 6: Average Pillar Scores by Region



Note: The figure shows the average scores for each pillar of all countries within each group. GK Skills = Global Knowledge Skills; VT Skills = Vocational and Technical Skills.

Source: Lanvin & Evans (2016) – pg. 26

Despite these challenges, Chile (ranked #34) and Uruguay (ranked #51) reveal particular potential, according to the GTCI Index. Chile has strong "growth" and "global knowledge" pillars. The country is increasingly becoming attractive for foreign talent due to its solid business environment, pool of highly-qualified professionals (tertiary education), researchers, senior officials and scientific institutions. On the other hand, the "vocational and technical skills" is the lowest pillar in the country (#46 globally) mainly due to critics from business leaders indicating that the educational system does not meet their needs.[17][18]

Likewise, Uruguay scores high on the "attract" and "growth" pillars. The country is attractive for talent development for its high tolerance for minorities (ranked 6th globally) and availability of new technology as a result of foreign direct investment (#23 worldwide). Moreover, the country is able to "grow" talent by ensuring personal rights (#7) and through the prevalence of training in firms (#28). Similar to Chile, Uruguay also scores low in the "vocational and technical skills" pillar (ranked 92nd worldwide). Uruguayan business leaders report having difficulty finding skilled employees (#91) and indicate that the educational system falls short of meeting the needs of a competitive economy (#100).[19][20]

The mismatch challenge in skills is closely related to the major disconnect between education and the business sector.[21] While technology eliminates some occupations, it also creates new ones, yet these new jobs require higher levels of skills.[22] As Andrew McAfee, co-director of the MIT Initiative on the Digital Economy, explains, "Routine human work is going away very quickly and never coming back… Educational systems are doing a marvelous job of turning out routine workers. The mismatch is profound. Education is one of the slowest institutions to

[17] Lanvin & Evans (2016)
[18] View full country profile on Appendix A
[19] Lanvin & Evans (2016)
[20] View full country profile on Appendix B
[21] Salazar-Xirinachs (2015)
[22] Lanvin & Evans (2016)

change in this society."[23] Thus, a new model of education is needed. However, this imminent approach may resemble one that already exists, as David Deming explains: "It is striking to me how much a high quality preschool classroom looks like a modern workplace. Children share resources and experiences with each other and move flexibly between tasks and roles. Learning is immersive and often implicit—even for "hard" skills like math and literacy."[24]

Bibliography (APA)

Bassi, M., Busso, M., Urzua, S., & Vargas, J. (2012). Disconnected: skills, education, and employment in Latin America. Washington, DC: Inter-American Development Bank. doi:http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=36714455

Boston Consulting Group. (2016, March 09). Producing Digital Gains at Davos. Retrieved December 08, 2017, from https://www.bcgperspectives.com/content/articles/technology-digital-technology-business-transformation-producing-digital-gains-davos/

Busso, M., Cristia, J., Hincapié, D., Messina, J., & Ripani, L. (Eds.). (2017). Development in the Americas: Learning better: public policy for skills development. Inter-American Development Bank. doi: http://dx.doi.org/10.18235/0000799#sthash.PbQu0KLb.dpuf

INSEAD. (2017, January 16). 2017 Global Talent Competitiveness Index focuses on talent and technology. Retrieved December 08, 2017, from https://www.insead.edu/news/2017-global-talent-competitiveness-index-davos

Lanvin, B., & Evans, P. (Eds.). (2016). The global talent competitiveness index 2017. France: INSEAD. doi:http://www.gtci2017.com/documents/GTCI_2017_web_r3.pdf

Making Cents International. (2017). Latin America has the world's biggest skills gap. Apprenticeships could close it. Retrieved December 08, 2017, from https://youtheconomicopportunities.org/blog/8530/latin-america-has-world-s-biggest-skills-gap-apprenticeships-could-close-it

Salazar-Xirinachs, J. M. (2015, May 07). 6 ways Latin America can close its skills gap. Retrieved December 08, 2017, from https://www.weforum.org/agenda/2015/05/6-ways-latin-america-can-close-its-skills-gap/

Walsh, B. (2015, September 3). The Payoff of People Skills. Retrieved December 08, 2017, from https://www.gse.harvard.edu/news/uk/15/09/payoff-people-skills

[23] Boston Consulting Group (2016)
[24] Walsh (2015)

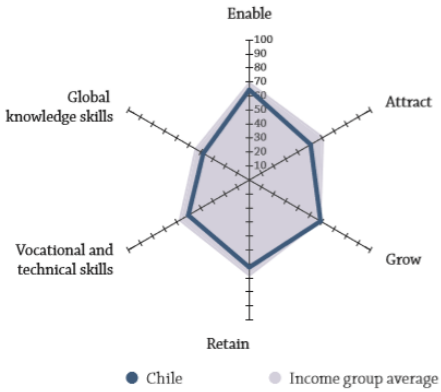
Appendix A - The Global Talent Competitiveness Index: Country Profile

CHILE

Key Indicators

Rank (out of 118)	**34**
Income group	**High income**
Regional group	**Latin, Central America and the Caribbean**
Population (millions)	**17.95**
GDP per capita (PPP US$)	**22,316.21**
GDP (US$ billions)	**240.22**
GTCI score	**54.11**
GTCI score (income group average)	**59.74**

GTCI 2017 Country Profile by Pillar



		Score	Rank
1	**ENABLE**	**64.43**	**30**
1.1	Regulatory Landscape	74.41	21
1.1.1	Government effectiveness	69.71	26
1.1.2	Business-government relations	73.82	20
1.1.3	Political stability	74.57	43
1.1.4	Regulatory quality	82.33	16
1.1.5	Corruption	71.62	22
1.2	Market Landscape	55.11	47
1.2.1	Competition intensity	76.18	21
1.2.2	Ease of doing business	69.42	45
1.2.3	Cluster development	44.38	68
1.2.4	R&D expenditure	8.33	69
1.2.5	ICT infrastructure	62.40	57
1.2.6	Technology utilisation	69.94	36
1.3	Business and Labour Landscape	63.78	52
	Labour Market Flexibility		
1.3.1	Ease of hiring	66.67	51
1.3.2	Ease of redundancy	.80	46
	Management Practice		
1.3.3	Labour-employer cooperation	58.34	50
1.3.4	Professional management	60.61	38
1.3.5	Relationship of pay to productivity	53.29	50
2	**ATTRACT**	**50.64**	**43**
2.1	External Openness	41.04	47
	Attract Business		
2.1.1	FDI and technology transfer	70.46	13
2.1.2	Prevalence of foreign ownership	74.03	16
	Attract People		
2.1.3	Migrant stock	5.61	71
2.1.4	International students	1.12	87
2.1.5	Brain gain	53.97	22
2.2	Internal Openness	60.24	44
	Social Diversity		
2.2.1	Tolerance of minorities	68.89	17
2.2.2	Tolerance of immigrants	68.20	47
2.2.3	Social mobility	62.61	37
	Gender Equality		
2.2.4	Female graduates	67.86	65
2.2.5	Gender earnings gap	50.19	93
2.2.6	Business opportunities for women	43.69	107
3	**GROW**	**58.87**	**22**
3.1	Formal Education	45.70	33
	Enrolment		
3.1.1	Vocational enrolment	45.78	35
3.1.2	Tertiary enrolment	75.27	8
	Quality		
3.1.3	Tertiary education expenditure	25.93	42
3.1.4	Reading, maths, science	33.89	45
3.1.5	University ranking	47.63	30
3.2	Lifelong Learning	64.74	26
3.2.1	Quality of management schools	70.97	20
3.2.2	Prevalence of training in firms	71.37	13
3.2.3	Employee development	51.87	49
3.3	Access to Growth Opportunities	66.16	20
	Networks		
3.3.1	Use of virtual social networks	82.03	35
3.3.2	Use of virtual professional networks	47.19	18
	Empowerment		
3.3.3	Delegation of authority	45.23	64
3.3.4	Personal rights	90.19	10
4	**RETAIN**	**62.36**	**37**
4.1	Sustainability	60.65	22
4.1.1	Pension system	59.60	42
4.1.2	Taxation	59.31	17
4.1.3	Brain retention	63.04	15
4.2	Lifestyle	64.06	54
4.2.1	Environmental performance	75.72	50
4.2.2	Personal safety	68.55	42
4.2.3	Physician density	13.01	81
4.2.4	Sanitation	98.98	23
5	**VOCATIONAL AND TECHNICAL SKILLS**	**50.37**	**46**
5.1	Mid-Level Skills	50.79	36
5.1.1	Workforce with secondary education	76.46	14
5.1.2	Population with secondary education	50.11	37
5.1.3	Technicians and associate professionals	n/a	n/a
5.1.4	Labour productivity per employee	25.81	48
5.2	Employability	49.94	80
5.2.1	Ease of finding skilled employees	54.38	48
5.2.2	Relevance of education system to the economy	39.59	74
5.2.3	Availability of scientists and engineers	59.95	31
5.2.4	Skills gap as major constraint	45.84	85
6	**GLOBAL KNOWLEDGE SKILLS**	**38.01**	**34**
6.1	High-Level Skills	28.09	67
6.1.1	Workforce with tertiary education	31.72	67
6.1.2	Population with tertiary education	28.71	48
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	4.65	62
6.1.5	Senior officials and managers	n/a	n/a
6.1.6	Quality of scientific institutions	51.21	46
6.1.7	Scientific journal articles	24.16	53
6.2	Talent Impact	47.94	17
6.2.1	Innovation output	36.98	47
6.2.2	High-value exports	8.35	90
	Entrepreneurship		
6.2.3	New product entrepreneurial activity	100.00	1
6.2.4	New business density	46.43	13

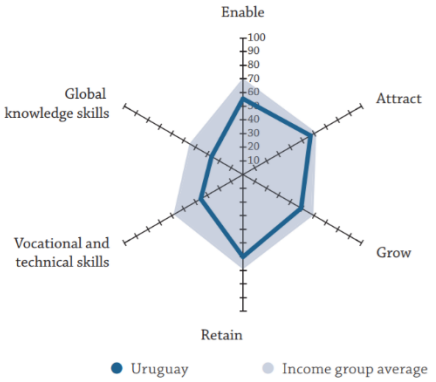
Appendix B – The Global Talent Competitiveness Index: Country Profile

URUGUAY

Key Indicators

Rank (out of 118)	**51**
Income group	**High income**
Regional group	**Latin, Central America and the Caribbean**
Population (millions)	**3.43**
GDP per capita (PPP US$)	**21,200.59**
GDP (US$ billions)	**53.44**
GTCI score	**47.28**
GTCI score (income group average)	**59.74**

GTCI 2017 Country Profile by Pillar



		Score	Rank
1	**ENABLE**	**55.48**	**51**
1.1	Regulatory Landscape	64.80	34
1.1.1	Government effectiveness	50.64	44
1.1.2	Business-government relations	50.37	76
1.1.3	Political stability	87.45	19
1.1.4	Regulatory quality	58.51	48
1.1.5	Corruption	77.03	20
1.2	Market Landscape	46.85	75
1.2.1	Competition intensity	62.26	85
1.2.2	Ease of doing business	49.59	79
1.2.3	Cluster development	38.56	91
1.2.4	R&D expenditure	5.24	79
1.2.5	ICT infrastructure	70.08	43
1.2.6	Technology utilisation	55.39	84
1.3	Business and Labour Landscape	54.80	82
	Labour Market Flexibility		
1.3.1	Ease of hiring	55.67	70
1.3.2	Ease of redundancy	100	1
	Management Practice		
1.3.3	Labour-employer cooperation	37.66	116
1.3.4	Professional management	51.44	69
1.3.5	Relationship of pay to productivity	29.23	116
2	**ATTRACT**	**56.98**	**28**
2.1	External Openness	42.68	39
	Attract Business		
2.1.1	FDI and technology transfer	66.88	23
2.1.2	Prevalence of foreign ownership	69.33	30
	Attract People		
2.1.3	Migrant stock	4.46	77
2.1.4	International students	n/a	n/a
2.1.5	Brain gain	30.07	82
2.2	Internal Openness	71.27	21
	Social Diversity		
2.2.1	Tolerance of minorities	81.11	6
2.2.2	Tolerance of immigrants	92.65	10
2.2.3	Social mobility	61.69	39
	Gender Equality		
2.2.4	Female graduates	87.91	11
2.2.5	Gender earnings gap	56.21	83
2.2.6	Business opportunities for women	48.07	100

		Score	Rank
3	**GROW**	**49.06**	**41**
3.1	Formal Education	31.56	57
	Enrolment		
3.1.1	Vocational enrolment	32.78	51
3.1.2	Tertiary enrolment	55.85	35
	Quality		
3.1.3	Tertiary education expenditure	25.96	41
3.1.4	Reading, maths, science	20.51	51
3.1.5	University ranking	22.70	56
3.2	Lifelong Learning	54.17	46
3.2.1	Quality of management schools	56.18	48
3.2.2	Prevalence of training in firms	59.63	28
3.2.3	Employee development	46.70	73
3.3	Access to Growth Opportunities	61.44	28
	Networks		
3.3.1	Use of virtual social networks	77.72	62
3.3.2	Use of virtual professional networks	34.20	27
	Empowerment		
3.3.3	Delegation of authority	40.01	90
3.3.4	Personal rights	93.84	7
4	**RETAIN**	**60.15**	**44**
4.1	Sustainability	49.98	43
4.1.1	Pension system	77.78	33
4.1.2	Taxation	32.37	105
4.1.3	Brain retention	39.79	69
4.2	Lifestyle	70.33	40
4.2.1	Environmental performance	68.83	60
4.2.2	Personal safety	68.43	43
4.2.3	Physician density	48.13	17
4.2.4	Sanitation	95.91	43
5	**VOCATIONAL AND TECHNICAL SKILLS**	**35.58**	**92**
5.1	Mid-Level Skills	26.95	84
5.1.1	Workforce with secondary education	34.54	68
5.1.2	Population with secondary education	22.95	81
5.1.3	Technicians and associate professionals	29.44	66
5.1.4	Labour productivity per employee	20.85	55
5.2	Employability	44.20	102
5.2.1	Ease of finding skilled employees	44.35	91
5.2.2	Relevance of education system to the economy	33.21	100
5.2.3	Availability of scientists and engineers	40.14	97
5.2.4	Skills gap as major constraint	59.12	67
6	**GLOBAL KNOWLEDGE SKILLS**	**26.45**	**67**
6.1	High-Level Skills	26.80	69
6.1.1	Workforce with tertiary education	35.28	58
6.1.2	Population with tertiary education	17.03	73
6.1.3	Professionals	30.91	58
6.1.4	Researchers	6.32	60
6.1.5	Senior officials and managers	34.83	35
6.1.6	Quality of scientific institutions	48.82	59
6.1.7	Scientific journal articles	14.45	66
6.2	Talent Impact	26.10	61
6.2.1	Innovation output	27.83	63
6.2.2	High-value exports	10.31	77
	Entrepreneurship		
6.2.3	New product entrepreneurial activity	51.99	28
6.2.4	New business density	14.28	39

LatAm CoLAB

3. Legal Requirements: Latin American University Credentials

RESEARCH NOTES COMPILED BY
LORENA BUSTAMANTE

Legal Requirements for Latin American Credentials

Research Compiled by Lorena Bustamante

Colombia

Recently (October 2017), Colombia updated the process to validate foreign degrees in order to speed-up the process. Students no longer need to show number of hours/credits, but rather come from a "high-quality" university:

- Program must be recognized by the local government
- There must be a "product" that leads to the degree (e.g., tesis)

Steps to validate a foreign degree:

- Complete application
- Photocopy of the degree
- Photocopy of the transcript

Takes 2-4 months: costs ~$200 (614,000 pesos colombianos)

http://www.semana.com/educacion/articulo/convalidar-titulos-obtenidos-en-el-extranjero-ministerio-de-educacion/543398

http://www.mineducacion.gov.co/1759/articles-363183_recurso_1.pdf

https://www.mineducacion.gov.co/portal/convalidaciones/Convalidaciones-Educacion-Superior/350995:Costo-y-duracion

Guides per country (educational systems):
https://www.mineducacion.gov.co/portal/convalidaciones/Convalidaciones-Educacion-Superior/363153:Guias-de-Sistemas-Educativos

Argentina

Since Feb 2017 it's a purely online process

The foreign degree must be "equivalent" to a degree recognized by the Argentinian government. Students need to find the "equivalent" degree in the country to validate a foreign degree. If the degree is not equivalent to a national degree, a team of experts must analyze the degree (e.g., curricular components, # of hours, etc.)
https://selectglobalvalue.santander.com/eu/BR/pt_BR/orientacion-universitaria/guia-convalidar-titulo-universitario-extranjero-argentina/orientacion-universitaria-argentina/at/1138805

Immediate "validation" of degrees from these countries: Spain, Mexico, Peru, Ecuador, Bolivia, Cuba, Colombia, Chile (as long as it comes from a recognized university in those countries)
http://dngusisco.siu.edu.ar/aplicacion.php?ah=st5939f5303ba587.20978638&ai=convalidaciones%7C%7C14000331

Appears that the tech space is more flexible and is not very strict in terms of "validation" of degrees in order to find jobs (vs. doctors, lawyers, etc)
http://dngusisco.siu.edu.ar/

http://dngusisco.siu.edu.ar/aplicacion.php?ah=st5939f5303ba587.20978638&ai=convalidaciones%7C%7C14000331

Chile

Immediate recognition of degrees recognized by the local government/authorities of the following countries: Brazil, Colombia, Peru, Uruguay, Spain, Bolivia, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Perú and Ecuador (Ministry of Education)
http://www.uchile.cl/portal/presentacion/relaciones-internacionales/revalidacion-de-titulos-extranjeros/96178/reconocimiento-en-el-ministerio-de-educacion

http://www.uchile.cl/portal/presentacion/relaciones-internacionales/revalidacion-de-titulos-extranjeros/8311/reconocimiento-en-el-ministerio-de-relaciones-exteriores

All degrees from a country without a partnership, the degree needs to be recognized by Universidad de Chile → checks that the degree is equivalent to a "nationally recognized degree"

- Examines the curricular components, number of hours, etc.

http://www.uchile.cl/portal/presentacion/relaciones-internacionales/revalidacion-de-titulos-extranjeros/8312/revalidacion-y-reconocimiento-en-la-u-de-chile

It appears like "validating" degrees is not essential in Chile to work

Ecuador

Immediate recognition of degrees from universities that appear in the following list:
http://www.senescyt.gob.ec/registro-titulos/wp-content/uploads/2017/08/listado_de_instituciones_de_educacion_superior_07-08-17.pdf

For degrees from universities that are NOT part of the list, but BELONG to: Argentina, Cuba, Chile or Perú, students can still easily validate those degrees:
http://www.senescyt.gob.ec/registro-titulos/registro-de-titulos-extranjeros/modalidad-convenio/

For degrees that are neither part of the list nor belong to the countries with special agreements, students must submit the degree for "revision" (long process) and validate the classes, number of hours, etc.
http://www.senescyt.gob.ec/registro-titulos/registro-de-titulos-extranjeros/modalidad-comite/

Uruguay

The Universidad de la República (Udelar) is the one responsible for validating foreign degrees. The degrees must have a national equivalent. It is done directly with the Department (e.g.,

Engineering) that the degree is associated with. Students need to submit the academic plan and transcript.

Agreements with countries: Chile

Process takes about 6 months

Not all professions need to revalidate their degrees. Lawyers and doctors ARE required to validate their degree

http://noticias.universia.edu.uy/en-portada/noticia/2013/06/26/1032800/revalidar-uruguay-titulos-extranjeros.html

https://venezolanosenuruguay.com/2015/07/29/revalidando-titulos-extranjeros-en-uruguay/

LatAm CoLAB

4. Research: Double Degree Models in Latin America

COMPILED BY
LORENA BUSTAMANTE

DOUBLE DEGREE OFFERING IN TECH RELATED DEGREES

LATAM Country	Mexico
Degree	Master of Science in Information Technology
University 1	Tecnológico de Monterrey (Mexico)
University 2	Carnegie Mellon's Heinz School (USA)
Description	Online degree. The program will be delivered in 12 week trimesters and includes 21 classes. Each class requires an average of 12 hours per week. The Carnegie Mellon's Heinz School offers the Master of Science in Information Technology with 24 credit hours of coursework (13 courses). Tecnológico de Monterrey offers the Maestría en Administración de Tecnologías de Información with 24 credits of coursework (8 courses). Only has two face-to-face moments consisting on mandatory trips to both institutions: • Orientation week, July 23 - 27, 2018 • Closing week, December 2020
History	Began in 2008 and the agreement is valid through 2010
Target Market	Oriented for engineers and managers with an executive position in strategic areas of any organization. Also designed for professionals working directly on IT key-areas such as IT management, freelancers and business consultants seeking to apply new concepts into the transformation of organizations to become more competitive **2016: 29 current students (9th cohort); 99 alumni**
Application	Students must apply to both universities separately
Recognition	Although Tecnológico de Monterrey agrees to accept certain course work from Carnegie Mellon University to be applied toward an award from Tecnológico de Monterrey, that course work may not be accepted by other colleges or universities in transfer, even if it appears on a transcript from Tecnológico de Monterrey. The decision to accept course work in transfer from any institution is made by the institution considering the acceptance of credits or course work.

Bibliography	http://maestriasydiplomadostec.mx/uploads/programa_posgrado/folleto/87/MTI_2018_.pdf http://maestriasydiplomadostec.mx/posgrados/maestria-en-administracion-de-tecnologias-de-informacion-doble-grado-con-carnegie-mellon-university-en-linea www.itesm.mx/wps/wcm/connect/snc/portal+informativo/por+tema/educacion/tec_conveniocarnegiemellon

LATAM Country	Mexico
Degree	Master in Computer Science
University 1	Universidad de Colima (México)
University 2	Ecole Nationale Supérieure Des Mines (France)
Description	On-site program (Mexico). 85 credits; 4 semesters. Has an investigative approach
History	Last cohort offered (2017)
Target Market	Targets bachelors in computer science, engineering, physics, mathematics
Application	Appears like students applied to the Mexican university only
Recognition	
Bibliography	http://www.anuiesrco.org.mx/sites/default/files/images/pdfredmovilidad/referencias/programas-doble-grado-udc.pdf https://www.ucol.mx/relaciones-internacionales/doble-grado-francia-posgrado.htm https://portal.ucol.mx/telematica/c-93.htm

LATAM Country	Colombia
Degree	Master in Mechanical Engineering
University 1	Universidad Eafit de Medellín (Colombia)
University 2	Hochschule Bremen (Germany)
Description	
Application	Students need to demonstrate fluency in the foreign language. They need to gain acceptance in the foreign university. Students must self-finance their stay at the foreign university (demonstrate economic capability)
Recognition	
Bibliography	http://www.eafit.edu.co/international/esp/convenios/Paginas/convenios-doble-titulacion.aspx HYPERLINK "https://www.elespectador.com/publicaciones/especial/articulo165677-doble-titulacion-una-tendencia" https://www.elespectador.com/publicaciones/especial/articulo165677-doble-titulacion-una-tendencia
LATAM Country	Colombia
Degree	PhD in Civil Engineering
University 1	Universidad Eafit de Medellín (Colombia)
University 2	Carnegie Mellon University (USA)
Description	
Application	Students need to demonstrate fluency in the foreign language. They need to gain acceptance in the foreign university. Students must self-finance their stay at the foreign university (demonstrate economic capability)
Recognition	

Bibliography	http://www.eafit.edu.co/international/esp/convenios/Paginas/convenios-doble-titulacion.aspx HYPERLINK "https://www.elespectador.com/publicaciones/especial/articulo165677-doble-titulacion-una-tendencia" https://www.elespectador.com/publicaciones/especial/articulo165677-doble-titulacion-una-tendencia
LATAM Country	Colombia
Degree	Master in Science, Technology and Innovation
University 1	Universidad de Santander UDES (Colombia)
University 2	Universidad de Sevilla US (Spain)
Description	On-site program (Colombia). 49 academic credits (4 semesters, 2-3 classes per semester)
History	Started in 2014 with 32 students - all sponsored by a scholarship from the Asociación Universitaria Iberoamericana de Postgrados (AUIP)
Target Market	Cost: $2.387,93 US (7.200.000 colombian pesos)
Application	Students apply directly to Universidad de Santander UDES (Colombia)
Recognition	
Bibliography	http://www.comvezcol.org/wp-content/uploads/2016/08/Maestr%C3%ADa-en-Gesti%C3%B3n-de-Ciencia-Tecnolog%C3%ADa-e-Innovaci%C3%B3n-UDES.pdf http://www.udes.edu.co/programas-de-maestria/gestion-de-ciencia-tecnologia-e-innovacion/677-doble-titulacion.html http://www.udes.edu.co/comunicaciones/item/194-inicia-primera-maestria-en-gestion-de-la-ciencia-la-tecnologia-la-innovacion-y-la-politica-cientifica.html

LATAM Country	Chile
Degree	PhD in Electrical Engineering
University 1	Universidad de Chile (Chile)
University 2	Universidad de Nottingham (UK)
Description	Full-time; onsite. 3yr. program; Students are expected to spend at least one year in each institution
History	Started in 2014; in 2017 had its first graduate (1 person)
Target Market	It is possible to obtain a scholarship to cover part of the fees from the UK side. Students with a scholarship from "Becas Chile" may apply for funding for this program for a max. of 2 years
Application	Students can apply to the program after the Qualification Exam. Both institutions must agree on the admission and recruitment of students into the program. Students complete the application process at both institutions
Recognition	
Bibliography	http://die.cl/wp-content/uploads/2015/12/un_joint_phd_final.pdf http://www.die.uchile.cl/2010/nuevo-programa-de-doble-grado-doctorado-en-ingenieria-electrica-universidad-de-nottingham-%E2%80%93-universidad-de-chile/ http://ingenieria.uchile.cl/noticias/95281/doctorado-en-ing-electrica-tendra-doble-grado-con-u-de-nottingham

LatAm CoLAB

5. Non-degree Tech Initiatives in Latin America

RESEARCH COMPILED BY
LORENA BUSTAMANTE

Country	**Uruguay**
University	University of Montevideo
Description	Offers an INITIUM center for technology and entrepreneurship. The center is focused on current students, but also offer seminars to the general public and accepts entrepreneurship project from people outside of the university. The center offers support, seminars and even seed funding for selected projects.
Market	Focuses on innovation projects (service, product, process, business model, merchandising) with potential to scale and expand internationally.
Cost	Seminars are free to the general public; students need to pay for the credits (to count towards their degree)
Specific Tech Offering	Innovation Program – Seminar Offered to all students; including 12th grade high school students Content: ● Module 1 - Sources of inspiration: Exponential Technology + Robotics, Music, Nano and Biotechnology, Big data, Environment + Sustainability. ● Module 2 - Methodologies to innovate: Design Thinking, Lego Serious Play. ● Module 3 - Applied innovation.
University Innovation Fellows Program (UIF)	The UIF is a program aimed at university students from all over the world that seeks to generate agents of change within the Universities. It encourages students to promote change and create opportunities that engage their peers with innovation, entrepreneurial spirit, "design thinking" and creativity. For this, they can create innovative spaces, start new ventures, promote learning events and work together with the coordinators of their faculties to develop new courses. It consists of an 8-week online course, and then a 5-day Silicon Valley Meetup where companies like Google and Microsoft are visited, and of course, Stanford University. We will be promoting the call once a year, around October, and if you are interested in being a part, do not hesitate to write us.

Bibliography	http://initium.um.edu.uy/ HYPERLINK "http://www.um.edu.uy/international/extras/initium/" http://www.um.edu.uy/international/extras/initium/

Country	**Brazil (**Sao Paulo), **Colombia** (Bogotá), y **Chile** (Santiago), **Mexico**
Organization	World Tech Makers (San Francisco, CA - 2013)
Description	• World Tech Makers, Inc. provides technology education services in Latin America. The company offers on-site coding bootcamps on Web and mobile development, wearable technologies, and big data technologies; and bootcamps for entrepreneurs and executives. • Bootcamps that last 2,4 or 12 weeks. No previous coding/programing experience is required Partnerships: • Corporations: IBM, INMPulsa (Colombia), Koombea, Ruta Medellin, Heartbits, CODE, Vanhack, talentITup • Institutions: World Bank Group, Universidad de los Andes (Colombia), wo-work
Market	• Clients range from emerging startups to established companies in private and public sectors • Developers, designers, entrepreneurs, career switchers (“outperformers”)
Cost	Online bootcamps: Basic (14.99/month), Pro (24.99/month), Elite (499.99/month) http://www.bootcamps.online/pricing On-site courses vary (some are completely free - e.g., Advanced front-end (Mexico): website design, Java, React JS, Node JS, etc.)

Specific Tech Offering	Topics (examples): JavaScript, C++, CSS3, Git, Rails, C#, MySQL, HTML5 Also offers online courses/programs with: work spaces (practice online), videos, career tracks, code challenges (with badges), live classes, 1-1 mentorship with experts, job opportunities, discussion forums, personal dashboard and metrics (offered in English, Spanish, Portuguese, and Mandarin)
Bibliography	http://www.worldtechmakers.com/bootcamps http://www.bootcamps.online/ https://www.bloomberg.com/research/stocks/private/people.asp?privcapId=324622226 https://vimeo.com/user19462542/about

Country	**Mexico** (DF), **Chile** (Santiago), **Peru** (Lima + Arequipa)
Organization	Laboratoria (founded by Columbia graduates)
Description	Laboratoria is a social enterprise that empowers young women from low-income backgrounds to work in the digital sector.
Market	Identifies young women with high potential, despite economic limitations, to become a jr. front-end developer, escaping the low-skill/low-paid trap to start a high-skill/high-paid career. ● Started in 2014 with a pilot program with 15 women. In 2016 they partnered with the Inter-American development Bank to scale the initiative in the next 3 years ○ 2016: 400 students, 75% job placement rate, 3.0x income growth ○ 2020 (plans): 10,000 students, 85% job placement rate, 4.0x income growth
Cost	

Specific Tech Offering	Offers a **6 -month training in web development** ● **Has a selective selection process**: ~25% acceptance rate. Select candidates that demonstrate potential and interest for technology, through psycho-social evaluations, logic and comprehension tests and a pre-admission week. ● **Market oriented curriculum:** We work closely with top companies in Latin America and Silicon Valley to teach what the market needs. We are actually evolving now from a 6mo (jr. front end developers) to a 2Y program (JavaScript developers) ● **Sustainable employment:** We connect them with our network of +400 hiring companies (e.g. IBM, Everis, Accenture, thoughworks, crowdbotics) prepare them for their interviews and continue supporting them throughout their first year of employment. ● **Personal support:** Give students the soft skills needed to perform well at work. Work with psychologists and external volunteers to equip students with the support needed to unleash their full potential and remove barriers for learning
Bibliography	http://laboratoria.la/en https://www.changemakers.com/globalgoals2015/entries/laboratoria-code-transforms

Country	**Argentina** (Buenos Aires)
Organization	Mente Argentina
Description	First coding school in Argentina that trains in different digital disciplines and has a community that promotes innovation, entrepreneurship and professional development, through immersive courses, face-to-face and practical, along with an agenda of events linked to the technological world and activities that promote the development of ideas and business IT. ● Also has an entrepreneurship focus: Activate the job change you were looking for. Join teams of global companies, start your start-up or work as free lance from where you want for everyone. Mente Argentina Coding Bootcamp Program allows you to enter the digital world and be in contact with colleagues, coaches and protagonists of the digital industry. You will become part of a community that will accompany you beyond the course, in your projects and ongoing training

Market	Focuses on foreigners. Also offers Spanish classes, though intermediate Spanish is required No prior knowledge is required Offers classes August – December & March- July
Cost	**- 1 intensive course,** 21 weeks: $8490-10,790 – depending on housing arrangement **- 2 intensive courses**, 21 weeks: $10,990 – 12,790 790 – depending on housing arrangement
Specific Tech Offering	- 6 different program options to choose from: full stack web developer, mobile android development, mobile ios development, digital marketing, ux design & digital product management - 100% hands on - Classroom course with content available online for review at home - Each program option s composed of 150-210 class hours - 24H access to teachers for questions (during and after the course - lifetime)
Bibliography	http://menteargentina.com/filesUploaded/Mente_Argentina_Coding_Bootcamp_Program_in_Buenos_Aires_Argentina_2017-2018.pdf http://www.menteargentina.com/4/Degrees-and-Specializations/30/Coding-Bootcamp-Program

Country	**Colombia** (Medellin)
Organization	Destination Dev
Description	Destination Dev is a coding bootcamp abroad and training academy that brings together students from all over the world for programs providing a unique combination of software development education and cultural immersion

Market	- Focuses on foreigners. Also offers cultural and travel excursions. - Targets “digital nomads” who work remotely, working professionals and students - Applicants need not have prior coding experience, but will need to complete pre-course assignments. - Offering a new program in Thailand (2018)
Cost	$9,990 (10 weeks; 50 hours in class per week)
Specific Tech Offering	The curriculum covers Ruby, Object-Oriented Programming, Algorithms, Ruby on Rails, HTML, CSS, basic JavaScript and jQuery, SQL and Databases, and finally how to get freelance/remote work and build a digital nomad lifestyle. http://www.destinationdev.com/curriculum#topics Also offers an Etherum Blockchain course, 8 day course geared toward professional software engineers ($3400) http://www.destinationdev.com/blockchain/
Bibliography	https://www.switchup.org/bootcamps/destination-dev http://www.destinationdev.com/

LatAm CoLAB

6. Survey Methodology and Results

SURVEYS CONDUCTED BY

SANTIAGO FERRARI & SAMUEL MORENO, INTER-AMERICAN DEVELOPMENT BANK

LatAm CoLAB: Feasibility Surveys and Results

Survey Methodology

1. General outreach strategy and response rates

Students Survey

We sent out the survey, via *SurveyMonkey,* to a random sample of 37,706 registered users in ConnectAmericas[1] and obtained a total of 695 responses.

- By location, the breakdown was as follows: Andean Community (41%), Central America and Mexico (24%), Southern Cone (21%), Brazil (10%), and Other (4%).
- By type of respondent, the breakdown was as follows: Graduated more than 5 years ago (63%), Graduated less than 5 years ago (14%), current students (10%), other (13%).
- By background in STEM, the breakdown was as follows: Beginner (1-5 years) (29%), advanced (10+ years) (24%), intermediate (5-10 years) (24%), and no experience at all (22%).

Companies Survey

We sent out the survey, via *SurveyMonkey*, to all of the 9,018 companies belonging to the i) Business and Professional Services and ii) Information & Communication Technologies industries in ConnectAmericas. We received a total of 192 responses.

- Of these responses, 88 companies (46%) were from STEM sectors and 104 (54%) of them were from non-STEM sectors.

2. Rating system and rationale - why we chose to frame the questions the way we did

Students Survey

Our approach was to break down the program into several components, which we called attributes. For each attribute we proposed two to five alternatives -specifications- and asked the respondents to assess the attractiveness (from 0 to 10) of a program with each of them. The goal was to get sense of the relative preferences of the respondents for the alternatives we considered a priori so then we can reconstruct the "ideal" program made up of the most preferred choices. In some cases we included a trade off (usually cost) for each attribute. We did this when the preferences for the alternatives of certain attributes seemed trivial, or had a

[1] ConnectAmericas is the first social network for businesses in the Americas, dedicated to promoting foreign trade and international investment. It seeks to help SMEs strengthen their businesses, by providing them access to communities of clients, suppliers and investors in the region and all over the world, segmented by industry. It also provides useful and simple information about procedures and regulations for international commerce, and about the financing opportunities available in IDB member countries.

relevant cost (e.g. people would probably prefer a formal degree rather than a less formal credential).

This methodology allowed us also to get an idea of the sensitivity of the preferences for each attribute, measured as the difference of the most valued choice and the least valued choice for each attribute as a share of the sum of the differences of all attributes. The goal here was to call the attention on those attributes whose choices can drive up or down the attractiveness of the program the most.

Finally, we asked people to directly identify the top five attributes (from all the attributes) most determinant when deciding whether to apply to a program like this one. The goal here was to provide more information for the prioritization of attributes in the design phase of the project.

Companies survey

The approach for this survey was more straightforward. Since we were targeting STEM-related sectors, firstly, we asked the companies some demographic questions and also asked them about the specific activity each each one does so that we could identify those more directly related to any STEM discipline. Secondly, we asked them about the specific skills they are looking for, both in general and STEM related. Thirdly, we asked the companies about the importance of a degree when hiring a candidate. Lastly, we asked them about the attractiveness of specific components of our program and how willing they would be to participate in the program in some specific ways.

Students Survey Questions and Results

1. Are you currently an undergraduate student or recent graduate?
    a. Yes, I am a student
    b. Yes, I graduated less than 5 years ago
    c. No, I graduated more than 5 years ago
    d. None of the above

2. What's your country of origin?
    _____

3. What's your country of residence?
    _____

4. What's your work status?
    a. I am a full-time employee
    b. I am a part-time employee
    c. I have my own business
    d. None of the above

5. In what industry do you work?
    _____

6. What's your position in the company you work at?
    a. Analyst
    b. Manager
    c. Director
    d. Owner

7. Have you ever founded a company?
    a. Yes
    b. No

8. What is your level of technical experience in STEM related fields (Science, Math, IT, programming, data science, engineering, etc.)?
    a. No experience at all
    b. Beginner (1-5 years)
    c. Intermediate (5-10 years)
    d. Advanced (10+ years)
9. **Industry Collaborators:** Please rate from 0 (not valuable at all) to 10 (most valuable), how valuable will this program be if:

A.	Entrepreneurial leaders provide mentoring on entrepreneurship or sponsor design challenges	8.90
B.	Established industry leaders sponsor research projects or design challenges where students solve a company problem	8.76
C.	Entrepreneurial leaders in tech to share expertise on developing products and launching a startup	8.72
D.	Established industry leaders to share expertise on how technology is being used at their companies	8.58
E.	Program is purely academic and research oriented without industry involvement	4.24

10. **Geographic Location:** Please rate from 0 (not attractive at all) to 10 (most attractive).How attractive will this program be if it takes place in:

A.	Montevideo, Uruguay	6.42
B.	Punta del Este, Uruguay	5.90

11. **Pedagogical Approach:** Please rate from 0 (not attractive at all) to 10 (most attractive)The method of learning for this program will be

A.	40% lectures, 60% hands on	7.92
B.	Mostly lectures, online and in-person	7.58
C.	Hands-on learning through labs and team projects	7.44

12. **Commitment:** Please rate from 0 (not attractive at all) to 10 (most attractive) if this program is a 12 month program, where you participate:

A.	Part-Time - 24 months to completion	7.17
B.	Full-Time - 12 months to completion	6.67

13. **Credential Offered:** Please rate from 0 (not important at all) to 10 (most important) After completion of this program, you will receive:

A.	A non-official credential (e.g. MicroMasters from MIT, or Verified Certificate from Stanford) - $ - least expensive	7.02
B.	A credential (but not a degree) recognized by a Latin American Agency but not a University, (e.g. the Agency for Innovation or International Institute for Energy and Research) - $$ - moderately expensive	6.47
C.	A formal degree after completing the program - $$$ - most expensive	6.30

14. **Student Profiles:** Please rate from 0 (not attractive at all) to 10 (most attractive); Students in the program will:

A.	Have some tech experience, inviting students from all backgrounds to join the program (interdisciplinary cohort)	7.90
B.	Come from a strong technical/digital background, mostly from STEM disciplines	6.71

15. **Job Prospects:** Please rate from 0 (not valuable at all) to 10 (most valuable); After completing this program, the most valuable thing this program can give me is:

A.	The knowledge and entrepreneurial skills to design and launch my own products	8.77
B.	Projects with real companies where I apply my technical skills	8.53
C.	Above average knowledge and qualifications in an advanced technological field	7.52
D.	A postgraduate degree to apply for jobs	7.24

16. **Financial Options:** Please rate from 0 (no likelihood) to 10 (absolutely likely). How likely are you to apply to this program if the program will offer:

A.	Competitive partial merit-based scholarship	7.49
B.	Need-based scholarship (requires students to demonstrate financial need)	7.42

C.	Competitive full merit-based scholarship that requires students to stay working in Uruguay for two years	7.34
D.	Student loan with a low interest rate	6.63
E.	No financial option available - the student is responsible for the funding of the program	2.61

17. **University Partners:** Please rate how valuable from 0 (not valuable) to 10 (most valuable).This program will partner with the following types of universities:

A.	Top ten US universities in their field (e.g. MIT, Stanford, Harvard, Cal Tech)	8.86
B.	US universities with strong programs in their field (e.g. Carnegie Mellon, NYU, Boston University, Texas A&M)	8.26
C.	A tech innovation organization (e.g. World Tech Makers, Laboratoria, Endeavor Global)	7.76
D.	Local tech university (e.g. UTEC)	6.98

18. **Program Placement:** Please rate from 0 (not attractive at all) to 10 (most attractive)

A.	Completely online with travel to Uruguay for 2-4 week in-person sessions ($ - least expensive)	7.95
B.	Full-time in Uruguay with travel to US host institutions (three months in Uruguay and a maximum of one month in the US per semester) ($$$ - most expensive)	4.65
C.	Full-time in Uruguay only ($$ - moderately expensive)	4.30

19. **Curriculum:** Please rate from 0 (not attractive at all) to 10 (most attractive) The format of the program will be:

A.	A core curriculum that all students take as a cohort, and a few electives in your chosen field	7.56
B	All elective courses	7.42
C.	A prescribed curriculum for your chosen field	7.25

20. **Class Model:** Please rate from 0 (not attractive at all) to 10 (most attractive). In this program, you will work

A.	Mostly as a team on various assignments and projects, some individual work	8.00
B.	Mostly as an individual on various assignments and projects	7.09

21. **Faculty Origin:** Please rate from 0 (not attractive at all) to 10 (most attractive) The faculty teaching the program will be some combination of (please rate your value of each)

A.	Industry experts or entrepreneurs working in their technical field from Latin America or outside Latin America	9.19
B.	Professors from outside Latin America with advanced knowledge in their field	8.50
C.	Latin American professors with advanced knowledge in their field	8.27

22. **Courses Offered:** Please rate from 0 (not attractive at all) to 10 (most attractive);The program will offer the following courses

A.	Interdisciplinary Courses combining mainly STEM with its impact on business, law, ethics, social sciences	8.63
B.	Advanced Courses in STEM (Science, Technology, Engineering, Math) disciplines	7.51

23. **Learning Environment:** Please rate from 0 (not attractive at all) to 10 (most attractive). The program will take place in an environment that is:

A.	An independent building that houses both cutting-edge companies and tech courses/programs and provides a venue for conferences and hackathons	8.89
B.	A university environment where learning happens in	6.52

	classes and labs	

24. **Top Values:** Please choose from the list, the top 5 most important attributes in choosing to participate in such a program (1= most important):

A.	Financial options	5.09
B.	Pedagogical approach	5.70
C	Faculty origin	5.72
D.	Program placement	5.78
E.	Courses offered	6.01
F.	Job prospects	6.19
G.	University partners	6.35
H.	Industry collaborators	6.40
I.	Class model	6.65
J.	Curriculum	6.96
K.	Geographic location	6.97
L.	Credential offered	7.36
M.	Learning environment	7.39
N.	Commitment	7.74
O.	Students profiles	7.80

4. Aggregated Student Results

Students Survey

Attributes and alternatives

Below there is a table of the aggregated average rating for all the alternatives for each attribute. The table is ordered from the attribute whose top rated alternative is also the most valued across all attributes to the one whose top alternative is the least valued.

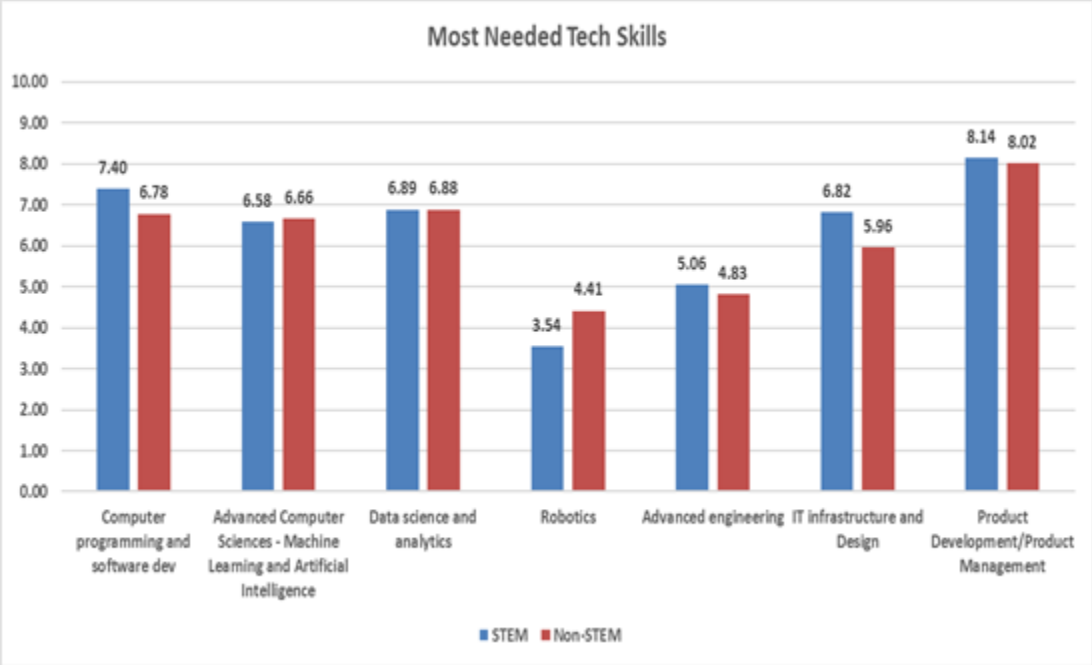
Attribute	Alternative	Rating
Faculty	Industry experts or entrepreneurs working in their technical field from Latin America or outside Latin America	9.19
Faculty	Professors from outside Latin America with advanced knowledge in their field	8.50
Faculty	Latin American professors with advanced knowledge in their field	8.27
Collaborators	Entrepreneurial leaders provide mentoring on entrepreneurship or sponsor design challenges	8.90
Collaborators	Established industry leaders sponsor research projects or design challenges where students solve a company problem	8.76
Collaborators	Entrepreneurial leaders in tech to share expertise on developing products and launching a startup	8.73
Collaborators	Established industry leaders to share expertise on how technology is being used at their companies	8.58
Collaborators	Program is purely academic and research oriented without industry involvement	4.24
Learning environment	An independent building that houses both cutting-edge companies and tech courses/programs and provides a venue for conferences and hackathons	8.89
Learning environment	A university environment where learning happens in classes and labs	6.52
Partner	Top ten US universities in their field (e.g. MIT, Stanford, Harvard, Cal Tech)	8.86
Partner	US universities with strong programs in their field (e.g. Carnegie Mellon, NYU, Boston University, Texas A&M)	8.26
Partner	A tech innovation organization (e.g. World Tech Makers,	7.76

	Laboratoria, Endeavor Global)	
Partner	Local tech university (e.g. UTEC)	6.98
Job	The knowledge and entrepreneurial skills to design and launch my own products	8.77
Job	Projects with real companies where I apply my technical skills	8.54
Job	Above average knowledge and qualifications in an advanced technological field	7.52
Job	A postgraduate degree to apply for jobs	7.24
Courses offered	Interdisciplinary Courses combining mainly STEM with its impact on business, law, ethics, social sciences	8.63
Courses offered	Advanced Courses in STEM (Science, Technology, Engineering, Math) disciplines	7.51
Class model	Mostly as a team on various assignments and projects, some individual work	8.00
Class model	Mostly as an individual on various assignments and projects	7.09
Program placement	Completely online with travel to Uruguay for 2-4 week in-person sessions ($ - least expensive)	7.95
Program placement	Full-time in Uruguay with travel to US host institutions (three months in Uruguay and a maximum of one month in the US per semester) ($$$ - most expensive)	4.65
Program placement	Full-time in Uruguay only ($$ - moderately expensive)	4.30
Pedagogical approach	40% lectures, 60% hands on	7.92
Pedagogical approach	Mostly lectures, online and in-person	7.58
Pedagogical approach	Hands-on learning through labs and team projects	7.44
Students profile	Have some tech experience, inviting students from all backgrounds to join the program (interdisciplinary cohort)	7.90
Students profile	Come from a strong technical/digital background, mostly from STEM disciplines	6.71

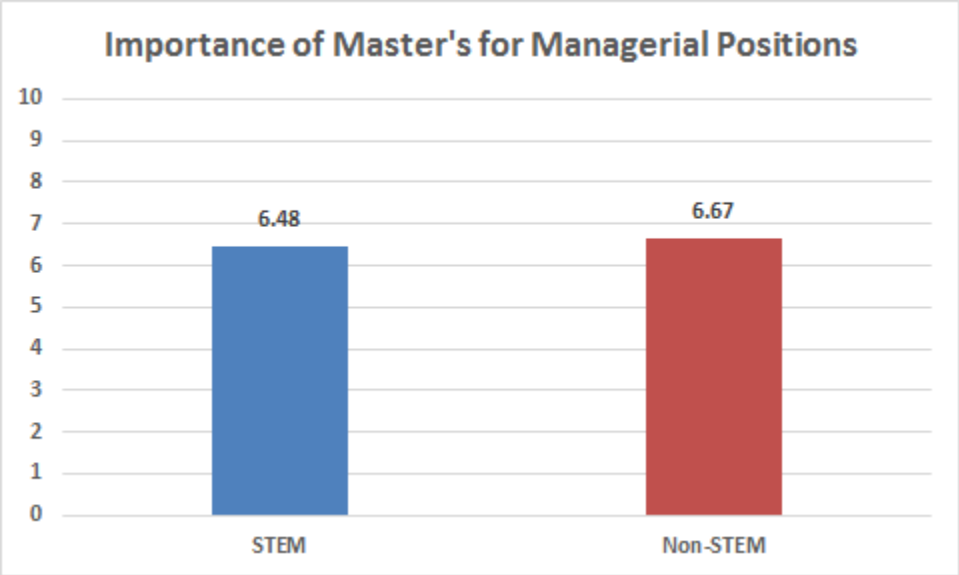
Curriculum	A core curriculum that all students take as a cohort, and a few electives in your chosen field	7.56
Curriculum	All elective courses	7.42
Curriculum	A prescribed curriculum for your chosen field	7.25
Financial	Competitive partial merit-based scholarship	7.49
Financial	Need-based scholarship (requires students to demonstrate financial need)	7.42
Financial	Competitive full merit-based scholarship that requires students to stay working in Uruguay for two years	7.34
Financial	Student loan with a low interest rate	6.63
Financial	No financial option available - the student is responsible for the funding of the program	2.61
Commitment	Part-time	7.17
Commitment	Full-time	6.67
Credential	A non-official credential (e.g. MicroMasters from MIT, or Verified Certificate from Stanford) - $ - least expensive	7.02
Credential	A credential (but not a degree) recognized by a Latin American Agency but not a University, (e.g. the Agency for Innovation or International Institute for Energy and Research) - $$ - moderately expensive	6.47
Credential	A formal degree after completing the program - $$$ - most expensive	6.30
Location	Montevideo	6.42
Location	Punta del Este	5.90

Companies Survey

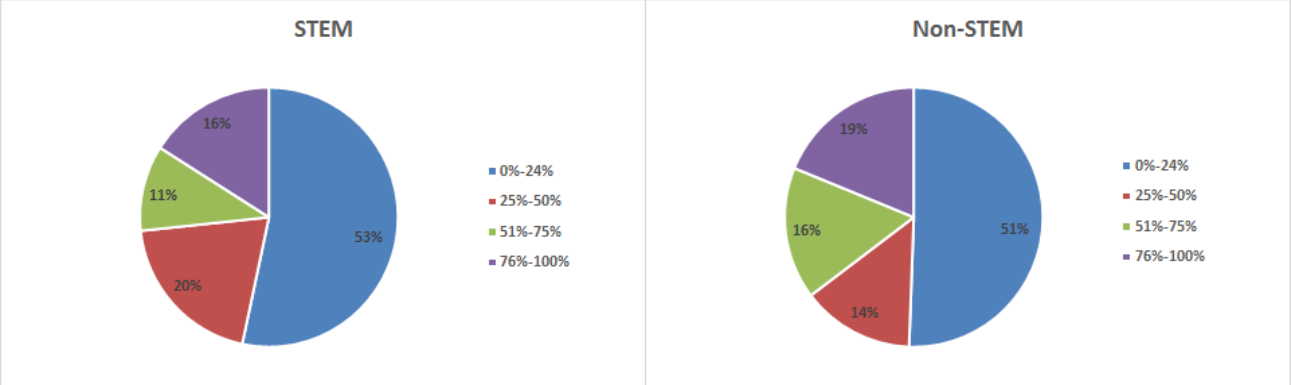
1. Industry
   _____
2. Main product/service
   _____
3. Country
   _____
4. Year company was founded
   _____
5. Number of Employees
   _____
6. Annual Revenue (in USD)
   _____
7. Which skills will be most important for your company to hire in the next 3-5 years? Please, rate each skill from 0 (not important at all) to 10 (extremely important).



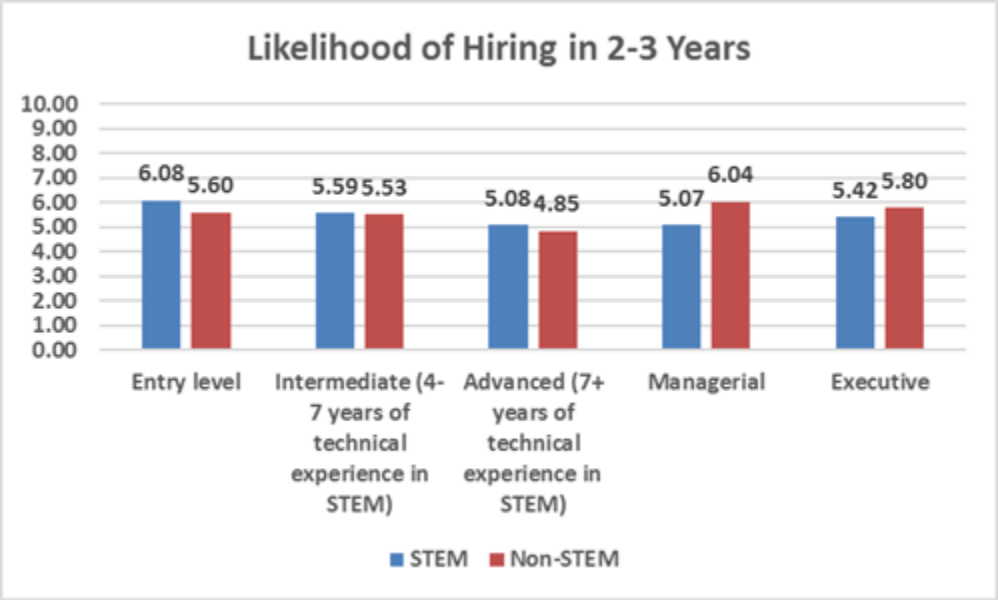
8. How important is it to possess a Master's degree for holding a managerial position in your company (0= not important at all, 10= very important)



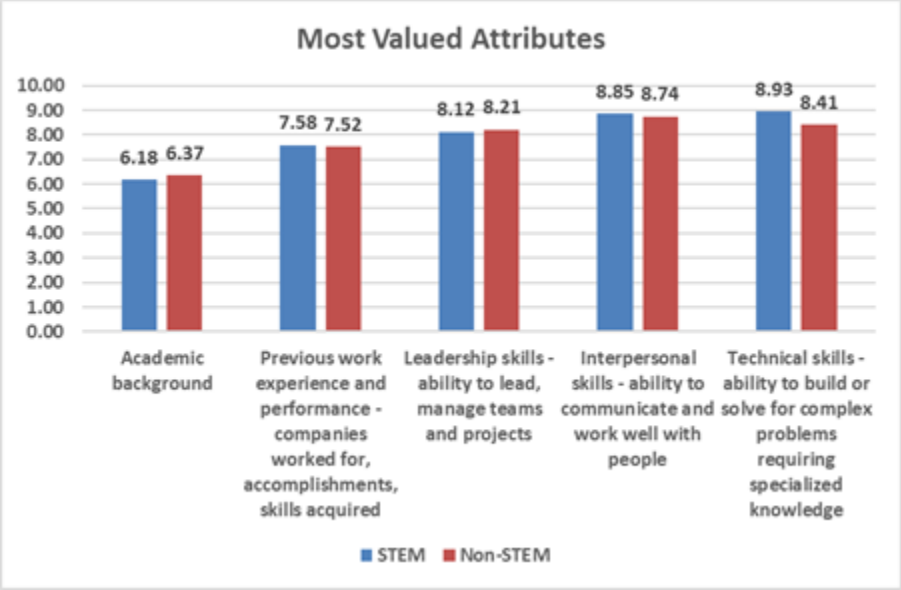
9. Around what proportion of your company's employees hold an advanced degree (Master's)?



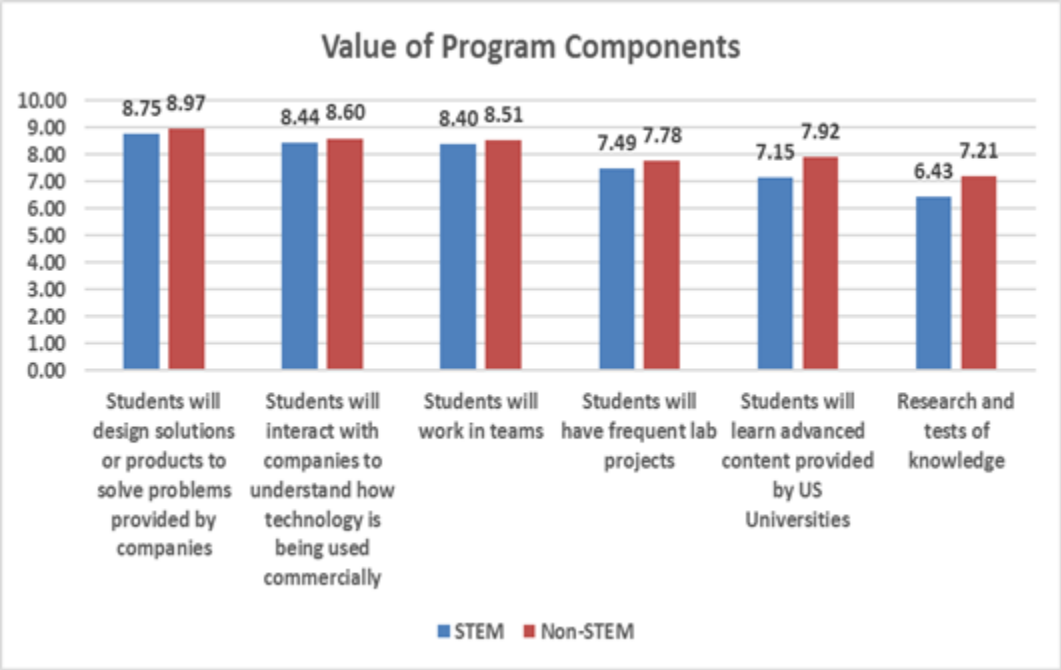
10. How likely is your company to hire the following roles in the next 2-3 years? (0= unlikely to hire; 10= extremely likely to hire)



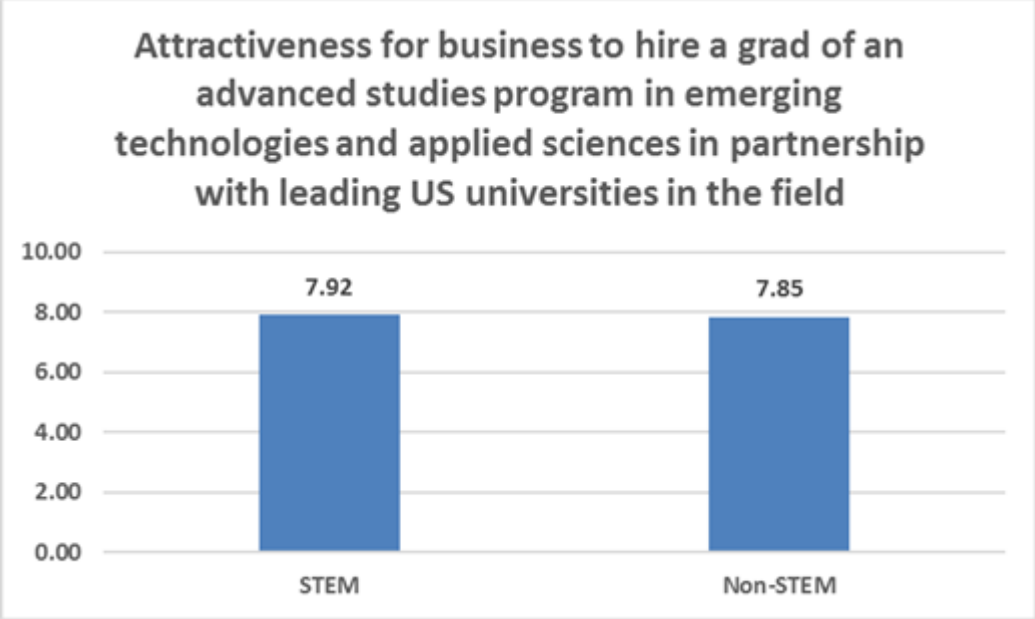
11. Rate, in terms of importance, the attributes that your company looks for in a potential employee? (0 = not important at all, 10 = most important)



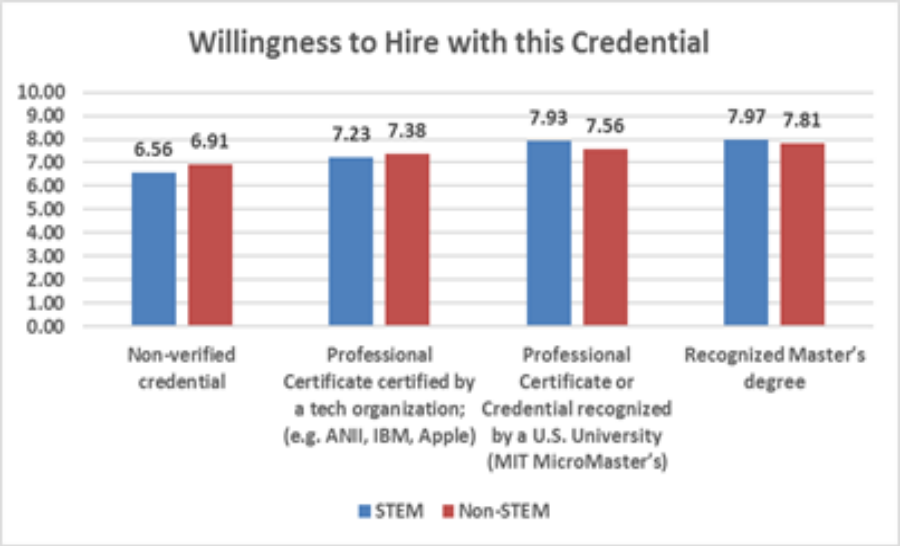
12. We are designing an advanced training program to prepare students for the future oriented tech economy. As an employer, how valuable are the following components of our potential program (0 = not valuable at all to 10 = most valuable)



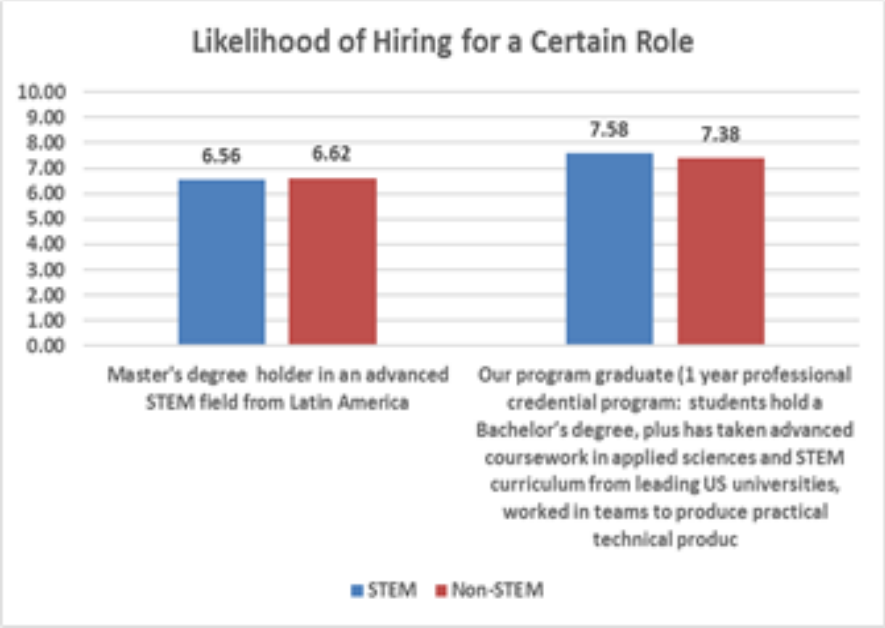
13. How attractive would it be for your business to hire a person that has just completed an advanced studies program in emerging technologies and applied sciences (such as Artificial Intelligence, Robotics, Data Science, Advanced Engineering, etc) offered in partnership with leading US universities in the field? (0= completely unattractive and 10= very attractive)



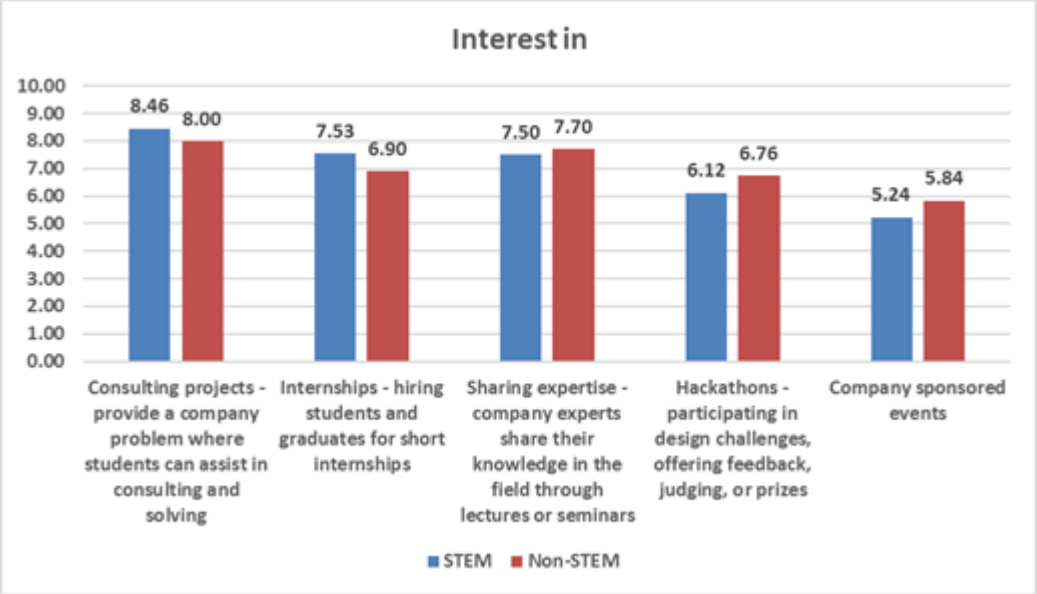
14. How willing are you to hire a graduate, who completed this program if the credential they receive at the end is (0 = not at all willing to 10 = absolutely willing)



15. How likely would you hire each of these candidates to fulfill the same technical job role (0 = not likely at all, 10 = absolutely likely):



16. Please, rate from 0 (not interested at all) to 10 (extremely interested). How interested would you or your company be in becoming involved in each of these activities with students in the context of the program?



4. Completion rates and Randomization of questions

Students survey

Due in part to the long nature of the survey itself, the completion rate was just under 60% and respondents spent a weighted average of 10 minutes on the survey. In order to avoid an imbalance in the number of responses per question, we randomized the order of the questions.

Companies survey

The completion rate for this survey was just under 70%, a bit higher than the student survey. Respondents spent a weighted average of 8 minutes on the survey. Due to the fact that it was a shorter survey, we did not randomize the order of the questions in this one. Despite this, a difference in response rates does exist between the survey's first nine question (93% average) and the survey's last eight questions (72% average).

LatAm
CoLAB

7. One Pager: Overview

SARA JESSIE KANE

LatAm CoLAB

General Overview

LatAm CoLAB is an initiative sponsored by the Government of Uruguay, the Inter-American Development Bank, and internationally recognized technical universities, with the goal of building capacities in applied science, technology and innovation in the Latin American Region and facilitate its insertion in global markets.

The initiative is a 12 month program designed to train and equip recent graduates in advancing technologies. We select the most promising students from all over Latin America to participate in a cohort based model, where they learn, collaborate, and solve real technical challenges in teams. The program develops true expertise by applying technical skills to real world world problems.

Goal

Our goal is to leverage the power of collaboration with leading international universities to train regional talent in the areas of applied science, technology, and innovation.

Mission

Our mission is to spread world class applied science and technological knowledge throughout the Latin American region, to further develop the region economically and technologically.

Vision

Through partnerships with leading international universities with advanced programs in future oriented sciences, such as artificial intelligence, robotics, data science, and engineering, we envision creating a collaborative initiative, where thought leaders in the technological fields can share their expertise, train young minds, and work with and alongside local universities and industry leaders in an ecosystem of innovation.

In this proposed ecosystem, each player can play a vital role:

Universities – as leading institutions of academic learning and training, we believe universities provide the foundation of knowledge needed to catalyze innovation in the world.

Industry Leaders – established and emerging industry leaders share expertise, and provide real world application for students through sponsorship of design challenges and research initiatives

Institutions – with the cooperation and support of institutions like the Inter-American Development Bank, we are designing a framework that empowers innovation, spurs investment, and develops the local economy.

IDB
Improving lives

LatAm
CoLAB

8. One Pager: University

SARA JESSIE KANE

LatAm CoLAB

Collaboration: Uruguay + IDB + You

We are an initiative sponsored by the Government of Uruguay and the Inter-American Development Bank, with the singular goal of building capacities in applied science, technology, and innovation in the Latin American Region.

LatAm CoLAB is searching for multiple collaborators among universities, corporations, governments, and entrepreneurs. We recognize the prohibitive costs in creating full-fledged international university partnerships. We also recognize the need that universities have to expand their horizons and to draw in students, talent, and energy from underserved regions of the world.

Mission: Team-Based, Real World

At the core of the initiative is a 12-month program designed to train and equip recent graduates in advancing technologies. We select the most promising students from all over Latin America to participate in a cohort based model, where they learn, collaborate, and solve real technical challenges in teams.
The program develops true expertise by applying technical skills to real world problems.

Content: Forward Looking

We are focused on creating programs – from certificates to master's degrees – in collaboration with international university partners to provide courses (online and in-person) to Latin American students, in the following technical fields:

- Advanced Computer Programming
  –Artificial Intelligence
  –Machine Learning
- Engineering Design and Robotics
- Data Science and Analytics
- Bioscience and Bioengineering
- Additional coursework with a technology focus in disciplines such as Business and Economics, Law and Ethics, Humanities and Social Sciences

Commitment: Low Barrier, High Impact

To lower the barrier to entry to and to increase the potential pool of university collaborators we have devised these eight areas of potential collaboration, five of which universities must commit to:

1. Provide access to course content and curriculum online and/or in-person.
2. Two faculty members in residence for at least two weeks/academic year. Professors teach hybrid/ online course for the remainder of the term.
3. Designate professor/scholar in residence to spend at least four weeks/academic year at **LatAm CoLAB**. Professors tasked with mentoring students could also take additional time in country as part of a sabbatical.
4. Agree to include our program amongst approved overseas programs, contingent on a partnership with a study abroad provider.
5. Admit as study abroad students at least 10 qualified (under the collaborator school's guidelines) Latin American students and provide a living stipend.
6. One month intensive summer course.
7. Students from collaborator university undertake minimum two-week, in-residence project in related field in Latin America.
8. Provide advisory services to curriculum and/or program development.

Opportunity

Come join us as collaborators in this new endeavor in Uruguay, the Latin American country that ranks first in the region in political stability, democracy, freedom of the press, and, soon, in innovation.

IDB
Improving lives

LatAm
CoLAB

9. Detailed Proposed Budget

WITH FINANCIAL MODELS AND ASSUMPTIONS

JACOB KRAMER

Summary Budget								
Hybrid Program Model	**Phase 1**		**Phase 2**		**Phase 3**		**Phase 4**	
	February 2018 - January 2019		**February 2019 - January 2020**		**February 2020 - January 2021**		**February 2021 - January 2022**	
Description	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
REVENUES								
Total Tuition & Fees	$ -	$ -	$ 1,800,000	$ 2,200,000	$ 4,995,000	$ 6,105,000	$ 10,395,000	$ 12,705,000
University Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Uruguay Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Inter-American Development Bank Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Corporate Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Research Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Space Lease	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Revenue	**$ -**	**$ -**	**$ 1,800,000**	**$ 2,200,000**	**$ 4,995,000**	**$ 6,105,000**	**$ 10,395,000**	**$ 12,705,000**
EXPENDITURES								
Total Faculty Salaries & Benefits	$ 288,000	$ 544,000	$ 365,760	$ 738,400	$ 469,440	$ 997,600	$ 650,880	$ 1,451,200
Total Education Staff Salaries & Benefits	$ 140,800	$ 313,600	$ 200,192	$ 382,720	$ 510,976	$ 949,760	$ 1,021,952	$ 1,899,520
Total Consultants	$ 375,000	$ 650,000	$ 375,000	$ 650,000	$ 375,000	$ 650,000	$ 375,000	$ 650,000
Administrative Operational Expenses	$ 362,500	$ 825,000	$ 697,500	$ 1,300,000	$ 971,250	$ 1,702,500	$ 1,147,500	$ 1,905,000
Student & TA In-Residence Expenses	$ -	$ -	$ 807,000	$ 2,086,120	$ 2,421,000	$ 6,258,360	$ 4,842,000	$ 12,516,720
Faculty In-Residence Expenses	$ -	$ -	$ 118,350	$ 438,345	$ 276,150	$ 1,022,805	$ 552,300	$ 2,045,610
Incubator Expenses	$ -	$ -	$ 51,067	$ 112,067	$ 147,267	$ 302,267	$ 147,267	$ 302,267
Research Investment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Adjusted Educational Support Expenses	$ 26,250	$ 58,125	$ 75,703	$ 122,322	$ 83,750	$ 128,750	$ 83,750	$ 128,750
Campus Facilities Lease/Management Fee	$ -	$ -	$ 40,000	$ 60,000	$ 40,000	$ 60,000	$ 40,000	$ 60,000
Equipment Leases	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Scholarships	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Expenditures	**$ 1,192,550**	**$ 2,390,725**	**$ 2,730,572**	**$ 5,889,973**	**$ 5,294,833**	**$ 12,072,042**	**$ 8,860,649**	**$ 20,959,067**
Total Expenditures per Student			**$ 27,306**	**$ 58,900**	**$ 17,649**	**$ 40,240**	**$ 14,768**	**$ 34,932**
Annual Net Profit/(Loss)	**$ (1,192,550)**	**$ (2,390,725)**	**$ (930,572)**	**$ (3,689,973)**	**$ (299,833)**	**$ (5,967,042)**	**$ 1,534,351**	**$ (8,254,067)**
Cumulative Net Profit/(Loss)	**$ (1,192,550)**	**$ (2,390,725)**	**$ (2,123,122)**	**$ (6,080,698)**	**$ (2,422,954)**	**$ (12,047,740)**	**$ (888,603)**	**$ (20,301,807)**
Average of High and Low Expenditures	**$1,791,638**		**$4,310,273**		**$8,683,437**		**$14,909,858**	

Hybrid Program Model														
Detailed Budget														
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**			
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**			
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
REVENUES														
Tuition	[1]													
Faculty Student Tuition		-	$ -	$ -	-	$ -	$ -	30	$ -	$ -	30	$ -	$ -	
Uruguayan Student Tuition		-	$ -	$ -	50	$ 675,000	$ 825,000	120	$ 1,620,000	$ 1,980,000	270	$ 3,645,000	$ 4,455,000	
Non-Uruguayan Student Tuition		-	$ -	$ -	50	$ 1,125,000	$ 1,375,000	150	$ 3,375,000	$ 4,125,000	300	$ 6,750,000	$ 8,250,000	
Housing Fee		-	$ -	$ -	100	$ -	$ -	300	$ -	$ -	600	$ -	$ -	
Meals Fee		-	$ -	$ -	100	$ -	$ -	300	$ -	$ -	600	$ -	$ -	
Total Tuition & Fees		**-**	**$ -**	**$ -**	**100**	**$ 1,800,000**	**$ 2,200,000**	**300**	**$ 4,995,000**	**$ 6,105,000**	**600**	**$ 10,395,000**	**$ 12,705,000**	
University Contributions	[2]	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Uruguay Contributions	[3]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Inter-American Development Bank Contributions	[3]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Corporate Contributions			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Research Funding			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Office Space Lease	[4]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Total Operating Revenue			**$ -**	**$ -**		**$ 1,800,000**	**$ 2,200,000**		**$ 4,995,000**	**$ 6,105,000**		**$ 10,395,000**	**$ 12,705,000**	
EXPENDITURES														
Dean		1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	
Associate Dean		1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	
Full Time Faculty		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Part Time Faculty		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Adjunct Faculty	[5]	-	$ -	$ -	9	$ 72,000	$ 180,000	21	$ 168,000	$ 420,000	42	$ 336,000	$ 840,000	
Total Faculty Salaries			**$ 225,000**	**$ 425,000**		**$ 297,000**	**$ 605,000**		**$ 393,000**	**$ 845,000**		**$ 561,000**	**$ 1,265,000**	
Full Time Faculty Benefits @ 28%			$ 63,000	$ 119,000		$ 63,000	$ 119,000		$ 63,000	$ 119,000		$ 63,000	$ 119,000	
Part Time Faculty Benefits @ 8%			$ -	$ -		$ 5,760	$ 14,400		$ 13,440	$ 33,600		$ 26,880	$ 67,200	
Total Faculty Salaries & Benefits			**$ 288,000**	**$ 544,000**		**$ 365,760**	**$ 738,400**		**$ 469,440**	**$ 997,600**		**$ 650,880**	**$ 1,451,200**	
Administrative Assistants		1	$ 25,000	$ 55,000	1	$ 25,000	$ 55,000	2	$ 50,000	$ 110,000	4	$ 100,000	$ 220,000	
Program Managers		1	$ 30,000	$ 65,000	1	$ 30,000	$ 65,000	2	$ 60,000	$ 130,000	4	$ 120,000	$ 260,000	
Resident Advisors		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Lab Support		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
General Support		1	$ 25,000	$ 55,000	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Information Technology Support		1	$ 30,000	$ 70,000	0.5	$ 15,000	$ 35,000	1	$ 30,000	$ 70,000	2	$ 60,000	$ 140,000	
Professional Support		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Teaching Assistants (online)	[6]	-	$ -	$ -	48	$ 86,400	$ 144,000	144	$ 259,200	$ 432,000	288	$ 518,400	$ 864,000	
Teaching Assistants (in-residence)		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Total Staff Support			**$ 110,000**	**$ 245,000**		**$ 156,400**	**$ 299,000**		**$ 399,200**	**$ 742,000**		**$ 798,400**	**$ 1,484,000**	
Total Benefits @ 28%			$ 30,800	$ 68,600		$ 43,792	$ 83,720		$ 111,776	$ 207,760		$ 223,552	$ 415,520	
Total Education Staff Salaries & Benefits			**$ 140,800**	**$ 313,600**		**$ 200,192**	**$ 382,720**		**$ 510,976**	**$ 949,760**		**$ 1,021,952**	**$ 1,899,520**	

Hybrid Program Model														
Detailed Budget														
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**			
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**			
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	
Legal			$ 25,000	$ 50,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000	
Lobbyist			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Management Consulting (US)			$ 300,000	$ 500,000		$ 300,000	$ 500,000		$ 300,000	$ 500,000		$ 300,000	$ 500,000	
Other Consultants (US)			$ 50,000	$ 100,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000	
Total Consultants			**$ 375,000**	**$ 650,000**		**$ 375,000**	**$ 650,000**		**$ 375,000**	**$ 650,000**		**$ 375,000**	**$ 650,000**	
Books & Subscriptions (includes MOOCs)	[7]	-	$ -	$ -	100	$ 50,000	$ 100,000	300	$ 150,000	$ 200,000	600	$ 300,000	$ 350,000	
Memberships			$ -	$ -		$ 10,000	$ 30,000		$ 10,000	$ 30,000		$ 10,000	$ 30,000	
Computer Supplies			$ 20,000	$ 50,000		$ 20,000	$ 50,000		$ 30,000	$ 75,000		$ 30,000	$ 75,000	
Food & Entertainment			$ 5,000	$ 10,000		$ 12,500	$ 25,000		$ 12,500	$ 25,000		$ 12,500	$ 25,000	
Recruitment Faculty/Staff			$ 20,000	$ 40,000		$ 15,000	$ 25,000		$ 15,000	$ 25,000		$ 15,000	$ 25,000	
Employee Travel			$ 15,000	$ 35,000		$ 15,000	$ 35,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000	
Student Travel			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Moving Expenses			$ 10,000	$ 30,000		$ 15,000	$ 35,000		$ 15,000	$ 35,000		$ 15,000	$ 35,000	
Accreditation			$ 5,000	$ 25,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000	
Maintenance Contracts			$ 5,000	$ 10,000		$ 20,000	$ 40,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000	
Postage & Freight			$ 5,000	$ 10,000		$ 5,000	$ 10,000		$ 5,000	$ 10,000		$ 5,000	$ 10,000	
Advertising			$ 100,000	$ 250,000		$ 200,000	$ 300,000		$ 200,000	$ 300,000		$ 200,000	$ 300,000	
Student Activities			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Faculty & Student Retreats			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Laboratory Supplies			$ -	$ -		$ -	$ -		$ 25,000	$ 75,000		$ 25,000	$ 75,000	
Educational Expenses			$ -	$ -		$ 10,000	$ 40,000		$ 20,000	$ 50,000		$ 20,000	$ 50,000	
Information Technology Operating Expenses			$ 125,000	$ 250,000		$ 200,000	$ 350,000		$ 250,000	$ 400,000		$ 250,000	$ 400,000	
Information Technology Maintenance Agreements			$ 10,000	$ 20,000		$ 15,000	$ 30,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000	
Telephone Expenses			$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000	
Student Health Insurance			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Student Disability Insurance			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Faculty Development	[8]	1	$ 2,500	$ 5,000	6	$ 20,000	$ 50,000	12	$ 28,750	$ 57,500	22	$ 55,000	$ 110,000	
Administrative Fees			$ 10,000	$ 25,000		$ 25,000	$ 50,000		$ 35,000	$ 70,000		$ 35,000	$ 70,000	
Miscellaneous			$ 10,000	$ 25,000		$ 25,000	$ 50,000		$ 35,000	$ 70,000		$ 35,000	$ 70,000	
Administrative Operational Expenses			**$ 362,500**	**$ 825,000**		**$ 697,500**	**$ 1,300,000**		**$ 971,250**	**$ 1,702,500**		**$ 1,147,500**	**$ 1,905,000**	
Travel Expenses	[9]	-	$ -	$ -	66	$ 198,000	$ 396,000	198	$ 594,000	$ 1,188,000	396	$ 1,188,000	$ 2,376,000	
Housing Expenses		-	$ -	$ -	116	$ 266,800	$ 765,600	348	$ 800,400	$ 2,296,800	696	$ 1,600,800	$ 4,593,600	
Meal Expenses		-	$ -	$ -	116	$ 133,400	$ 344,520	348	$ 400,200	$ 1,033,560	696	$ 800,400	$ 2,067,120	
In-residence Activity Expenses	[10]	-	$ -	$ -	116	$ 92,800	$ 232,000	348	$ 278,400	$ 696,000	696	$ 556,800	$ 1,392,000	
Miscellaneous		-	$ -	$ -	116	$ 116,000	$ 348,000	348	$ 348,000	$ 1,044,000	696	$ 696,000	$ 2,088,000	
Student & TA In-Residence Expenses			**$ -**	**$ -**		**$ 807,000**	**$ 2,086,120**		**$ 2,421,000**	**$ 6,258,360**		**$ 4,842,000**	**$ 12,516,720**	
Travel Expenses	[11]	-	$ -	$ -	9	$ 50,400	$ 108,000	21	$ 117,600	$ 252,000	42	$ 235,200	$ 504,000	
Housing Expenses		-	$ -	$ -	9	$ 41,400	$ 222,750	21	$ 96,600	$ 519,750	42	$ 193,200	$ 1,039,500	
Meal Expenses		-	$ -	$ -	9	$ 10,350	$ 40,095	21	$ 24,150	$ 93,555	42	$ 48,300	$ 187,110	
In-residence Activity Expenses	[10]	-	$ -	$ -	9	$ 7,200	$ 27,000	21	$ 16,800	$ 63,000	42	$ 33,600	$ 126,000	
Miscellaneous		-	$ -	$ -	9	$ 9,000	$ 40,500	21	$ 21,000	$ 94,500	42	$ 42,000	$ 189,000	
Faculty In-Residence Expenses			**$ -**	**$ -**		**$ 118,350**	**$ 438,345**		**$ 276,150**	**$ 1,022,805**		**$ 552,300**	**$ 2,045,610**	
Housing Expenses	[12]	-	$ -	$ -	4	$ 6,400	$ 16,000	20	$ 32,000	$ 80,000	20	$ 32,000	$ 80,000	
Living Stipend		-	$ -	$ -	4	$ 6,400	$ 12,800	20	$ 32,000	$ 64,000	20	$ 32,000	$ 64,000	
Product Budget or Seed Investment	[13]	-	$ -	$ -	1	$ 15,000	$ 25,000	4	$ 60,000	$ 100,000	4	$ 60,000	$ 100,000	
Travel Expense - Faculty/Advisors	[14]	-	$ -	$ -	4	$ 5,600	$ 8,000	4	$ 5,600	$ 8,000	4	$ 5,600	$ 8,000	
Housing Expenses - Faculty/Advisors		-	$ -	$ -	4	$ 5,600	$ 20,000	4	$ 5,600	$ 20,000	4	$ 5,600	$ 20,000	

Hybrid Program Model														
Detailed Budget														
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**			
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**			
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
Meal Expenses - Faculty/Advisors		-	$ -	$ -	4	$ 1,400	$ 3,600	4	$ 1,400	$ 3,600	4	$ 1,400	$ 3,600
Faculty/Advisor Compensation	[15]	-	$ -	$ -	4	$ 10,667	$ 26,667	4	$ 10,667	$ 26,667	4	$ 10,667	$ 26,667
Incubator Expenses (Optional)			**$ -**	**$ -**		**$ 51,067**	**$ 112,067**		**$ 147,267**	**$ 302,267**		**$ 147,267**	**$ 302,267**
Research Investment			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Office of Student Affairs			$ 11,250	$ 37,500		$ 19,125	$ 63,750		$ 25,000	$ 45,000		$ 25,000	$ 45,000
Admissions Office			$ 28,125	$ 56,250		$ 47,813	$ 71,720		$ 50,000	$ 70,000		$ 50,000	$ 70,000
Financial Aid Office			$ 28,125	$ 56,250		$ 47,813	$ 71,720		$ 50,000	$ 70,000		$ 50,000	$ 70,000
Library Support			$ -	$ -		$ 25,500	$ 38,250		$ 30,000	$ 50,000		$ 30,000	$ 50,000
Health Services			$ -	$ -		$ 51,000	$ 76,500		$ 55,000	$ 75,000		$ 55,000	$ 75,000
Student Counseling			$ -	$ -		$ 31,875	$ 47,813		$ 35,000	$ 55,000		$ 35,000	$ 55,000
Academic Affairs			$ 9,375	$ 22,500		$ 15,938	$ 23,907		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Administrative Affairs			$ 9,375	$ 22,500		$ 15,938	$ 23,907		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Other Institutional Costs			$ 18,750	$ 37,500		$ 47,813	$ 71,720		$ 50,000	$ 70,000		$ 50,000	$ 70,000
Educational Support Expenses			**$ 105,000**	**$ 232,500**		**$ 302,813**	**$ 489,287**		**$ 335,000**	**$ 515,000**		**$ 335,000**	**$ 515,000**
Adjusted Educational Support Expenses (25%)			**$ 26,250**	**$ 58,125**		**$ 75,703**	**$ 122,322**		**$ 83,750**	**$ 128,750**		**$ 83,750**	**$ 128,750**
Campus Facilities Lease/Management Fee	[16]		$ -	$ -		$ 40,000	$ 60,000		$ 40,000	$ 60,000		$ 40,000	$ 60,000
Equipment Leases	[17]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Scholarships	[18]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Total Expenditures			**$ 1,192,550**	**$ 2,390,725**		**$ 2,730,572**	**$ 5,889,973**		**$ 5,294,833**	**$ 12,072,042**		**$ 8,860,649**	**$ 20,959,067**
Total Expenditures per Student			$ -	$ -		$ 27,306	$ 58,900		$ 17,649	$ 40,240		$ 14,768	$ 34,932
Annual Net Profit/(Loss)			**$ (1,192,550)**	**$ (2,390,725)**		**$ (930,572)**	**$ (3,689,973)**		**$ (299,833)**	**$ (5,967,042)**		**$ 1,534,351**	**$ (8,254,067)**
Cumulative Net Profit/(Loss)			**$ (1,192,550)**	**$ (2,390,725)**		**$ (2,123,122)**	**$ (6,080,698)**		**$ (2,422,954)**	**$ (12,047,740)**		**$ (888,603)**	**$ (20,301,807)**

In-Residence Program Model								
Summary Budget								
In-Residence Program Model	**Phase 1**		**Phase 2**		**Phase 3**		**Phase 4**	
	February 2018 - January 2019		**February 2019 - January 2020**		**February 2020 - January 2021**		**February 2021 - January 2022**	
Description	**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
REVENUES								
Total Tuition & Fees	$ -	$ -	$ 1,800,000	$ 2,200,000	$ 4,995,000	$ 6,105,000	$ 10,395,000	$ 12,705,000
University Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Uruguay Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Inter-American Development Bank Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Corporate Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Research Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Space Lease	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Revenue	**$ -**	**$ -**	**$ 1,800,000**	**$ 2,200,000**	**$ 4,995,000**	**$ 6,105,000**	**$ 10,395,000**	**$ 12,705,000**
EXPENDITURES								
Total Faculty Salaries & Benefits	$ 288,000	$ 544,000	$ 365,760	$ 738,400	$ 469,440	$ 997,600	$ 650,880	$ 1,451,200
Total Education Staff Salaries & Benefits	$ 140,800	$ 281,600	$ 288,512	$ 510,720	$ 733,696	$ 1,346,560	$ 1,403,392	$ 2,552,320
Total Consultants	$ 360,000	$ 620,000	$ 365,000	$ 635,000	$ 370,000	$ 640,000	$ 370,000	$ 640,000
Administrative Operational Expenses	$ 487,500	$ 1,015,000	$ 787,500	$ 1,470,000	$ 1,048,750	$ 1,805,000	$ 1,225,000	$ 1,955,000
Student & In-Residence Expenses	$ -	$ -	$ 772,650	$ 2,045,250	$ 2,310,300	$ 6,115,500	$ 4,620,600	$ 12,231,000
Faculty/TA In-Residence Expenses	$ -	$ -	$ 236,700	$ 876,690	$ 552,300	$ 2,045,610	$ 1,104,600	$ 4,091,220
Incubator Expenses	$ -	$ -	$ 51,067	$ 112,067	$ 147,267	$ 302,267	$ 147,267	$ 302,267
Research Investment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Adjusted Educational Support Expenses	$ 52,500	$ 116,250	$ 151,406	$ 236,675	$ 257,500	$ 347,500	$ 257,500	$ 347,500
Campus Facilities Lease/Management Fee	$ -	$ -	$ 40,000	$ 60,000	$ 40,000	$ 60,000	$ 40,000	$ 60,000
Equipment Leases	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Scholarships	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Expenditures	**$ 1,328,800**	**$ 2,576,850**	**$ 3,058,595**	**$ 6,684,801**	**$ 5,929,253**	**$ 13,660,037**	**$ 9,819,239**	**$ 23,630,507**
Total Expenditures per Student			**$ 30,586**	**$ 66,848**	**$ 19,764**	**$ 45,533**	**$ 16,365**	**$ 39,384**
Annual Net Profit/(Loss)	**$ (1,328,800)**	**$ (2,576,850)**	**$ (1,258,595)**	**$ (4,484,801)**	**$ (934,253)**	**$ (7,555,037)**	**$ 575,761**	**$ (10,925,507)**
Cumulative Net Profit/(Loss)	**$ (1,328,800)**	**$ (2,576,850)**	**$ (2,587,395)**	**$ (7,061,651)**	**$ (3,521,648)**	**$ (14,616,688)**	**$ (2,945,886)**	**$ (25,542,195)**
Average of High and Low Expenditures	**$1,952,825**		**$4,871,698**		**$9,794,645**		**$16,724,873**	

In-Residence Program Model														
Detailed Budget														
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**			
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**			
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	
REVENUES														
Tuition	[1]													
Faculty Student Tuition					-	$ -	$ -	30	$ -	$ -	30	$ -	$ -	
Uruguayan Student Tuition		-	$ -	$ -	50	$ 675,000	$ 825,000	120	$ 1,620,000	$ 1,980,000	270	$ 3,645,000	$ 4,455,000	
Non-Uruguayan Student Tuition		-	$ -	$ -	50	$ 1,125,000	$ 1,375,000	150	$ 3,375,000	$ 4,125,000	300	$ 6,750,000	$ 8,250,000	
Housing Fee	[19]	-	$ -	$ -	100	$ -	$ -	300	$ -	$ -	600	$ -	$ -	
Meals Fee		-	$ -	$ -	100	$ -	$ -	300	$ -	$ -	600	$ -	$ -	
Total Tuition & Fees		**-**	**$ -**	**$ -**	**100**	**$ 1,800,000**	**$ 2,200,000**	**300**	**$ 4,995,000**	**$ 6,105,000**	**600**	**$ 10,395,000**	**$ 12,705,000**	
University Contributions	[2]	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Uruguay Contributions	[3]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Inter-American Development Bank Contributions	[3]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Corporate Contributions			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Research Funding			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Office Space Lease	[4]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Total Operating Revenue			**$ -**	**$ -**		**$ 1,800,000**	**$ 2,200,000**		**$ 4,995,000**	**$ 6,105,000**		**$ 10,395,000**	**$ 12,705,000**	
EXPENDITURES														
Dean		1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	1	$ 125,000	$ 225,000	
Associate Dean		1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	1	$ 100,000	$ 200,000	
Full Time Faculty		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Part Time Faculty		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Adjunct Faculty	[5]	-	$ -	$ -	9	$ 72,000	$ 180,000	21	$ 168,000	$ 420,000	42	$ 336,000	$ 840,000	
Total Faculty Salaries			**$ 225,000**	**$ 425,000**		**$ 297,000**	**$ 605,000**		**$ 393,000**	**$ 845,000**		**$ 561,000**	**$ 1,265,000**	
Full Time Faculty Benefits @ 28%			$ 63,000	$ 119,000		$ 63,000	$ 119,000		$ 63,000	$ 119,000		$ 63,000	$ 119,000	
Part Time Faculty Benefits @ 8%			$ -	$ -		$ 5,760	$ 14,400		$ 13,440	$ 33,600		$ 26,880	$ 67,200	
Total Faculty Salaries & Benefits			**$ 288,000**	**$ 544,000**		**$ 365,760**	**$ 738,400**		**$ 469,440**	**$ 997,600**		**$ 650,880**	**$ 1,451,200**	
Administrative Assistants		1	$ 25,000	$ 50,000	1	$ 25,000	$ 50,000	2	$ 50,000	$ 110,000	2	$ 50,000	$ 110,000	
Program Managers		1	$ 30,000	$ 60,000	1	$ 30,000	$ 60,000	2	$ 60,000	$ 130,000	4	$ 120,000	$ 260,000	
Resident Advisors		-	$ -	$ -	1	$ 18,000	$ 25,000	2	$ 36,000	$ 60,000	4	$ 72,000	$ 120,000	
Lab Support		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
General Support		1	$ 25,000	$ 50,000	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Information Technology Support		1	$ 30,000	$ 60,000	1	$ 30,000	$ 60,000	2	$ 60,000	$ 140,000	4	$ 120,000	$ 280,000	
Professional Support		-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	
Teaching Assistants (online)	[6]	-	$ -	$ -	48	$ 86,400	$ 144,000	144	$ 259,200	$ 432,000	288	$ 518,400	$ 864,000	
Teaching Assistants (in-residence)	[20]	-	$ -	$ -	12	$ 36,000	$ 60,000	36	$ 108,000	$ 180,000	72	$ 216,000	$ 360,000	
Total Staff Support			**$ 110,000**	**$ 220,000**		**$ 225,400**	**$ 399,000**		**$ 573,200**	**$ 1,052,000**		**$ 1,096,400**	**$ 1,994,000**	
Total Benefits @ 28%			$ 30,800	$ 61,600		$ 63,112	$ 111,720		$ 160,496	$ 294,560		$ 306,992	$ 558,320	
Total Education Staff Salaries & Benefits			**$ 140,800**	**$ 281,600**		**$ 288,512**	**$ 510,720**		**$ 733,696**	**$ 1,346,560**		**$ 1,403,392**	**$ 2,552,320**	

In-Residence Program Model																
Detailed Budget																
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**		
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**		
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
Legal			$ 10,000	$ 20,000		$ 15,000	$ 35,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Lobbyist			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Management Consulting (US)			$ 300,000	$ 500,000		$ 300,000	$ 500,000		$ 300,000	$ 500,000		$ 300,000	$ 500,000
Other Consultants (US)			$ 50,000	$ 100,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000
Total Consultants			**$ 360,000**	**$ 620,000**		**$ 365,000**	**$ 635,000**		**$ 370,000**	**$ 640,000**		**$ 370,000**	**$ 640,000**
Books & Subscriptions (includes MOOCs)	[7]	-	$ -	$ -	100	$ 50,000	$ 100,000	300	$ 150,000	$ 200,000	600	$ 300,000	$ 350,000
Memberships			$ -	$ -		$ 40,000	$ 60,000		$ 40,000	$ 60,000		$ 40,000	$ 60,000
Computer Supplies			$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 30,000	$ 50,000		$ 30,000	$ 50,000
Food & Entertainment			$ 5,000	$ 10,000		$ 12,500	$ 25,000		$ 15,000	$ 35,000		$ 15,000	$ 35,000
Recruitment Faculty/Staff			$ 20,000	$ 40,000		$ 15,000	$ 25,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Employee Travel			$ 15,000	$ 35,000		$ 15,000	$ 35,000		$ 25,000	$ 45,000		$ 25,000	$ 45,000
Student Travel			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Moving Expenses			$ 40,000	$ 60,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Accreditation			$ 20,000	$ 40,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000
Maintenance Contracts			$ 5,000	$ 10,000		$ 20,000	$ 40,000		$ 25,000	$ 50,000		$ 25,000	$ 50,000
Postage & Freight			$ 5,000	$ 15,000		$ 5,000	$ 15,000		$ 5,000	$ 15,000		$ 5,000	$ 15,000
Advertising			$ 100,000	$ 300,000		$ 200,000	$ 400,000		$ 200,000	$ 400,000		$ 200,000	$ 400,000
Student Activities			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Faculty & Student Retreats			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Laboratory Supplies			$ -	$ -		$ -	$ -		$ 25,000	$ 75,000		$ 25,000	$ 75,000
Educational Expenses			$ -	$ -		$ 10,000	$ 30,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Information Technology Operating Expenses			$ 125,000	$ 250,000		$ 200,000	$ 350,000		$ 250,000	$ 400,000		$ 250,000	$ 400,000
Information Technology Maintenance Agreements			$ 10,000	$ 20,000		$ 15,000	$ 30,000		$ 50,000	$ 70,000		$ 50,000	$ 70,000
Telephone Expenses			$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000		$ 20,000	$ 40,000
Student Health Insurance			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Student Disability Insurance			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Faculty Development	[8]	1	$ 2,500	$ 5,000	6	$ 20,000	$ 40,000	12	$ 28,750	$ 45,000	22	$ 55,000	$ 45,000
Administrative Fees			$ 50,000	$ 75,000		$ 50,000	$ 75,000		$ 50,000	$ 75,000		$ 50,000	$ 75,000
Miscellaneous			$ 50,000	$ 75,000		$ 50,000	$ 75,000		$ 50,000	$ 75,000		$ 50,000	$ 75,000
Administrative Operational Expenses			**$ 487,500**	**$ 1,015,000**		**$ 787,500**	**$ 1,470,000**		**$ 1,048,750**	**$ 1,805,000**		**$ 1,225,000**	**$ 1,955,000**
Travel Expenses	[21]	-	$ -	$ -	101	$ -	$ -	302	$ -	$ -	604	$ -	$ -
Housing Expenses	[22]	-	$ -	$ -	101	$ 363,600	$ 909,000	302	$ 1,087,200	$ 2,718,000	604	$ 2,174,400	$ 5,436,000
Meal Expenses		-	$ -	$ -	101	$ -	$ -	302	$ -	$ -	604	$ -	$ -
In-residence Activity Expenses	[23]	-	$ -	$ -	101	$ 181,800	$ 454,500	302	$ 543,600	$ 1,359,000	604	$ 1,087,200	$ 2,718,000
Miscellaneous		-	$ -	$ -	101	$ 227,250	$ 681,750	302	$ 679,500	$ 2,038,500	604	$ 1,359,000	$ 4,077,000
Student In-Residence Expenses			**$ -**	**$ -**		**$ 772,650**	**$ 2,045,250**		**$ 2,310,300**	**$ 6,115,500**		**$ 4,620,600**	**$ 12,231,000**
Travel Expenses	[24]	-	$ -	$ -	18	$ 100,800	$ 216,000	42	$ 235,200	$ 504,000	84	$ 470,400	$ 1,008,000
Housing Expenses		-	$ -	$ -	18	$ 82,800	$ 445,500	42	$ 193,200	$ 1,039,500	84	$ 386,400	$ 2,079,000
Meal Expenses		-	$ -	$ -	18	$ 20,700	$ 80,190	42	$ 48,300	$ 187,110	84	$ 96,600	$ 374,220
In-residence Activity Expenses		-	$ -	$ -	18	$ 14,400	$ 54,000	42	$ 33,600	$ 126,000	84	$ 67,200	$ 252,000
Miscellaneous		-	$ -	$ -	18	$ 18,000	$ 81,000	42	$ 42,000	$ 189,000	84	$ 84,000	$ 378,000
Faculty /TA In-Residence Expenses			**$ -**	**$ -**		**$ 236,700**	**$ 876,690**		**$ 552,300**	**$ 2,045,610**		**$ 1,104,600**	**$ 4,091,220**
Housing Expenses	[12]	-	$ -	$ -	4	$ 6,400	$ 16,000	20	$ 32,000	$ 80,000	20	$ 32,000	$ 80,000
Living Stipend		-	$ -	$ -	4	$ 6,400	$ 12,800	20	$ 32,000	$ 64,000	20	$ 32,000	$ 64,000
Product Budget or Seed Investment	[13]	-	$ -	$ -	1	$ 15,000	$ 25,000	4	$ 60,000	$ 100,000	4	$ 60,000	$ 100,000
Travel Expense - Faculty/Advisors	[14]	-	$ -	$ -	4	$ 5,600	$ 8,000	4	$ 5,600	$ 8,000	4	$ 5,600	$ 8,000
Housing Expenses - Faculty/Advisors		-	$ -	$ -	4	$ 5,600	$ 20,000	4	$ 5,600	$ 20,000	4	$ 5,600	$ 20,000

In-Residence Program Model														
Detailed Budget														
		Phase 1			**Phase 2**			**Phase 3**			**Phase 4**			
		February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**			
Description		**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	
Meal Expenses - Faculty/Advisors		-	$ -	$ -	4	$ 1,400	$ 3,600	4	$ 1,400	$ 3,600	4	$ 1,400	$ 3,600	
Faculty/Advisor Compensation	[15]	-	$ -	$ -	4	$ 10,667	$ 26,667	4	$ 10,667	$ 26,667	4	$ 10,667	$ 26,667	
Incubator Expenses (Optional)			**$ -**	**$ -**		**$ 51,067**	**$ 112,067**		**$ 147,267**	**$ 302,267**		**$ 147,267**	**$ 302,267**	
Research Investment			$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Office of Student Affairs			$ 11,250	$ 37,500		$ 19,125	$ 47,813		$ 50,000	$ 70,000		$ 50,000	$ 70,000	
Admissions Office			$ 28,125	$ 56,250		$ 47,813	$ 71,720		$ 80,000	$ 100,000		$ 80,000	$ 100,000	
Financial Aid Office			$ 28,125	$ 56,250		$ 47,813	$ 71,720		$ 80,000	$ 100,000		$ 80,000	$ 100,000	
Library Support			$ -	$ -		$ 25,500	$ 38,250		$ 50,000	$ 70,000		$ 50,000	$ 70,000	
Health Services			$ -	$ -		$ 51,000	$ 76,500		$ 80,000	$ 100,000		$ 80,000	$ 100,000	
Student Counseling			$ -	$ -		$ 31,875	$ 47,812		$ 50,000	$ 70,000		$ 50,000	$ 70,000	
Academic Affairs			$ 9,375	$ 22,500		$ 15,938	$ 23,907		$ 25,000	$ 45,000		$ 25,000	$ 45,000	
Administrative Affairs			$ 9,375	$ 22,500		$ 15,938	$ 23,907		$ 25,000	$ 45,000		$ 25,000	$ 45,000	
Other Institutional Costs			$ 18,750	$ 37,500		$ 47,813	$ 71,720		$ 75,000	$ 95,000		$ 75,000	$ 95,000	
Educational Support Expenses			**$ 105,000**	**$ 232,500**		**$ 302,813**	**$ 473,349**		**$ 515,000**	**$ 695,000**		**$ 515,000**	**$ 695,000**	
Adjusted Educational Support Expenses (50%)			**$ 52,500**	**$ 116,250**		**$ 151,406**	**$ 236,675**		**$ 257,500**	**$ 347,500**		**$ 257,500**	**$ 347,500**	
Campus Facilities Lease/Management Fee	[16]		$ -	$ -		$ 40,000	$ 60,000		$ 40,000	$ 60,000		$ 40,000	$ 60,000	
Equipment Leases	[17]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Scholarships	[18]		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -	
Total Expenditures			**$ 1,328,800**	**$ 2,576,850**		**$ 3,058,595**	**$ 6,684,801**		**$ 5,929,253**	**$ 13,660,037**		**$ 9,819,239**	**$ 23,630,507**	
Total Expenditures per Student			$ -	$ -		$ 30,586	$ 66,848		$ 19,764	$ 45,533		$ 16,365	$ 39,384	
Annual Net Profit/(Loss)			**$ (1,328,800)**	**$ (2,576,850)**		**$ (1,258,595)**	**$ (4,484,801)**		**$ (934,253)**	**$ (7,555,037)**		**$ 575,761**	**$ (10,925,507)**	
Cumulative Net Profit/(Loss)			**$ (1,328,800)**	**$ (2,576,850)**		**$ (2,587,395)**	**$ (7,061,651)**		**$ (3,521,648)**	**$ (14,616,688)**		**$ (2,945,886)**	**$ (25,542,195)**	

Dual Program Model								
Summary Budget								
	Phase 1		Phase 2		Phase 3		Phase 4	
	February 2018 - January 2019		February 2019 - January 2020		February 2020 - January 2021		February 2021 - January 2022	
Description	Low	High	Low	High	Low	High	Low	High
REVENUES								
Total Tuition & Fees	$ -	$ -	$ 3,600,000	$ 4,400,000	$ 9,990,000	$ 12,210,000	$ 20,790,000	$ 25,410,000
University Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Uruguay Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Inter-American Development Bank Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Corporate Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Research Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office Space Lease	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Revenue	**$ -**	**$ -**	**$ 3,600,000**	**$ 4,400,000**	**$ 9,990,000**	**$ 12,210,000**	**$ 20,790,000**	**$ 25,410,000**
EXPENDITURES								
Total Faculty Salaries & Benefits	$ 416,000	$ 800,000	$ 571,520	$ 1,188,800	$ 778,880	$ 1,707,200	$ 1,141,760	$ 2,614,400
Total Education Staff Salaries & Benefits	$ 243,200	$ 537,600	$ 488,704	$ 893,440	$ 1,244,672	$ 2,296,320	$ 2,425,344	$ 4,451,840
Total Consultants	$ 375,000	$ 650,000	$ 740,000	$ 1,285,000	$ 745,000	$ 1,290,000	$ 745,000	$ 1,290,000
Administrative Operational Expenses	$ 598,750	$ 1,232,500	$ 1,485,000	$ 2,770,000	$ 2,020,000	$ 3,507,500	$ 2,372,500	$ 3,860,000
Student & TA In-Residence Expenses	$ -	$ -	$ 1,579,650	$ 4,131,370	$ 4,731,300	$ 12,373,860	$ 9,462,600	$ 24,747,720
Faculty In-Residence Expenses	$ -	$ -	$ 355,050	$ 1,315,035	$ 828,450	$ 3,068,415	$ 1,656,900	$ 6,136,830
Incubator Expenses	$ -	$ -	$ 102,133	$ 224,133	$ 294,533	$ 604,533	$ 294,533	$ 604,533
Research Investment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Adjusted Educational Support Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Campus Facilities Lease/Management Fee	$ -	$ -	$ 80,000	$ 120,000	$ 80,000	$ 120,000	$ 80,000	$ 120,000
Equipment Leases	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Scholarships	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Expenditures	**$ 1,632,950**	**$ 3,220,100**	**$ 5,402,057**	**$ 11,927,778**	**$ 10,722,835**	**$ 24,967,828**	**$ 18,178,637**	**$ 43,825,323**
Total Expenditures per Student			**$ 27,010**	**$ 59,639**	**$ 17,871**	**$ 41,613**	**$ 15,149**	**$ 36,521**
Annual Net Profit/(Loss)	**$ (1,632,950)**	**$ (3,220,100)**	**$ (1,802,057)**	**$ (7,527,778)**	**$ (732,835)**	**$ (12,757,828)**	**$ 2,611,363**	**$ (18,415,323)**
Cumulative Net Profit/(Loss)	**$ (1,632,950)**	**$ (3,220,100)**	**$ (3,435,007)**	**$ (10,747,878)**	**$ (4,167,843)**	**$ (23,505,707)**	**$ (1,556,480)**	**$ (41,921,030)**

Dual Program Model												
Detailed Budget												
	Phase 1			**Phase 2**			**Phase 3**			**Phase 4**		
	February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**		
Description	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
REVENUES												
Tuition												
Faculty Student Tuition	-	$ -	$ -	-	$ -	$ -	60	$ -	$ -	60	$ -	$ -
Uruguayan Student Tuition	-	$ -	$ -	100	$ 1,350,000	$ 1,650,000	240	$ 3,240,000	$ 3,960,000	540	$ 7,290,000	$ 8,910,000
Non-Uruguayan Student Tuition	-	$ -	$ -	100	$ 2,250,000	$ 2,750,000	300	$ 6,750,000	$ 8,250,000	600	$ 13,500,000	$ 16,500,000
Housing Fee	-	$ -	$ -	200	$ -	$ -	600	$ -	$ -	1,200	$ -	$ -
Meals Fee	-	$ -	$ -	200	$ -	$ -	600	$ -	$ -	1,200	$ -	$ -
Total Tuition & Fees	**-**	**$ -**	**$ -**	**200**	**$ 3,600,000**	**$ 4,400,000**	**600**	**$ 9,990,000**	**$ 12,210,000**	**1,200**	**$ 20,790,000**	**$ 25,410,000**
University Contributions	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
Uruguay Contributions		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Inter-American Development Bank Contributions		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Corporate Contributions		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Research Funding		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Office Space Lease		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Total Operating Revenue		**$ -**	**$ -**		**$ 3,600,000**	**$ 4,400,000**		**$ 9,990,000**	**$ 12,210,000**		**$ 20,790,000**	**$ 25,410,000**
EXPENDITURES												
Dean	1	$ 125,000	$ 225,000	1	125,000	225,000	1	125,000	225,000	1	125,000	225,000
Associate Dean	2	$ 200,000	$ 400,000	2	200,000	400,000	2	200,000	400,000	2	200,000	400,000
Full Time Faculty	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
Part Time Faculty	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
Adjunct Faculty	-	$ -	$ -	18	$ 144,000	$ 360,000	42	$ 336,000	$ 840,000	84	$ 672,000	$ 1,680,000
Total Faculty Salaries		**$ 325,000**	**$ 625,000**		**$ 469,000**	**$ 985,000**		**$ 661,000**	**$ 1,465,000**		**$ 997,000**	**$ 2,305,000**
Full Time Faculty Benefits @ 28%		$ 91,000	$ 175,000		$ 91,000	$ 175,000		$ 91,000	$ 175,000		$ 91,000	$ 175,000
Part Time Faculty Benefits @ 8%		$ -	$ -		$ 11,520	$ 28,800		$ 26,880	$ 67,200		$ 53,760	$ 134,400
Total Faculty Salaries & Benefits		**$ 416,000**	**$ 800,000**		**$ 571,520**	**$ 1,188,800**		**$ 778,880**	**$ 1,707,200**		**$ 1,141,760**	**$ 2,614,400**
Administrative Assistants	2	$ 50,000	$ 110,000	2	$ 50,000	$ 105,000	4	$ 100,000	$ 220,000	6	$ 150,000	$ 330,000
Program Managers	2	$ 60,000	$ 130,000	2	$ 60,000	$ 125,000	4	$ 120,000	$ 260,000	8	$ 240,000	$ 520,000
Resident Advisors	-	$ -	$ -	1	$ 18,000	$ 25,000	2	$ 36,000	$ 60,000	4	$ 72,000	$ 120,000
Lab Support	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
General Support	2	$ 50,000	$ 110,000	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
Information Technology Support	1	$ 30,000	$ 70,000	1.5	$ 45,000	$ 95,000	3.0	$ 90,000	$ 210,000	6.0	$ 180,000	$ 420,000
Professional Support	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -	-	$ -	$ -
Teaching Assistants (online)	-	$ -	$ -	96	$ 172,800	$ 288,000	288	$ 518,400	$ 864,000	576	$ 1,036,800	$ 1,728,000
Teaching Assistants (in-residence)	-	$ -	$ -	12	$ 36,000	$ 60,000	36	$ 108,000	$ 180,000	72	$ 216,000	$ 360,000
Total Staff Support		**$ 190,000**	**$ 420,000**		**$ 381,800**	**$ 698,000**		**$ 972,400**	**$ 1,794,000**		**$ 1,894,800**	**$ 3,478,000**
Total Benefits @ 28%		$ 53,200	$ 117,600		$ 106,904	$ 195,440		$ 272,272	$ 502,320		$ 530,544	$ 973,840
Total Education Staff Salaries & Benefits		**$ 243,200**	**$ 537,600**		**$ 488,704**	**$ 893,440**		**$ 1,244,672**	**$ 2,296,320**		**$ 2,425,344**	**$ 4,451,840**

Dual Program Model												
Detailed Budget												
	Phase 1			**Phase 2**			**Phase 3**			**Phase 4**		
	February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**		
Description	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
Legal		$ 25,000	$ 50,000		$ 40,000	$ 85,000		$ 45,000	$ 90,000		$ 45,000	$ 90,000
Lobbyist		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Management Consulting (US)		$ 300,000	$ 500,000		$ 600,000	$ 1,000,000		$ 600,000	$ 1,000,000		$ 600,000	$ 1,000,000
Other Consultants (US)		$ 50,000	$ 100,000		$ 100,000	$ 200,000		$ 100,000	$ 200,000		$ 100,000	$ 200,000
Total Consultants		**$ 375,000**	**$ 650,000**		**$ 740,000**	**$ 1,285,000**		**$ 745,000**	**$ 1,290,000**		**$ 745,000**	**$ 1,290,000**
Books & Subscriptions (includes MOOCs)	-	$ -	$ -	200	$ 100,000	$ 200,000	600	$ 300,000	$ 400,000	1,200	$ 600,000	$ 700,000
Memberships		$ -	$ -		$ 50,000	$ 90,000		$ 50,000	$ 90,000		$ 50,000	$ 90,000
Computer Supplies		$ 20,000	$ 50,000		$ 40,000	$ 90,000		$ 60,000	$ 125,000		$ 60,000	$ 125,000
Food & Entertainment		$ 5,000	$ 10,000		$ 25,000	$ 50,000		$ 27,500	$ 60,000		$ 27,500	$ 60,000
Recruitment Faculty/Staff		$ 30,000	$ 50,000		$ 30,000	$ 50,000		$ 35,000	$ 65,000		$ 35,000	$ 65,000
Employee Travel		$ 15,000	$ 35,000		$ 30,000	$ 70,000		$ 50,000	$ 95,000		$ 50,000	$ 95,000
Student Travel		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Moving Expenses		$ 40,000	$ 60,000		$ 35,000	$ 75,000		$ 35,000	$ 75,000		$ 35,000	$ 75,000
Accreditation		$ 20,000	$ 40,000		$ 45,000	$ 90,000		$ 45,000	$ 90,000		$ 45,000	$ 90,000
Maintenance Contracts		$ 5,000	$ 10,000		$ 40,000	$ 80,000		$ 50,000	$ 100,000		$ 50,000	$ 100,000
Postage & Freight		$ 5,000	$ 10,000		$ 10,000	$ 25,000		$ 10,000	$ 25,000		$ 10,000	$ 25,000
Advertising		$ 200,000	$ 500,000		$ 400,000	$ 700,000		$ 400,000	$ 700,000		$ 400,000	$ 700,000
Student Activities		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Faculty & Student Retreats		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Laboratory Supplies		$ -	$ -		$ -	$ -		$ 50,000	$ 150,000		$ 50,000	$ 150,000
Educational Expenses		$ -	$ -		$ 20,000	$ 70,000		$ 40,000	$ 90,000		$ 40,000	$ 90,000
Information Technology Operating Expenses		$ 125,000	$ 250,000		$ 400,000	$ 700,000		$ 500,000	$ 800,000		$ 500,000	$ 800,000
Information Technology Maintenance Agreements		$ 10,000	$ 20,000		$ 30,000	$ 60,000		$ 100,000	$ 170,000		$ 100,000	$ 170,000
Telephone Expenses		$ 20,000	$ 40,000		$ 40,000	$ 80,000		$ 40,000	$ 80,000		$ 40,000	$ 80,000
Student Health Insurance		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Student Disability Insurance		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Faculty Development	2	$ 3,750	$ 7,500	11	$ 40,000	$ 90,000	23	$ 57,500	$ 102,500	44	$ 110,000	$ 155,000
Administrative Fees		$ 50,000	$ 75,000		$ 75,000	$ 125,000		$ 85,000	$ 145,000		$ 85,000	$ 145,000
Miscellaneous		$ 50,000	$ 75,000		$ 75,000	$ 125,000		$ 85,000	$ 145,000		$ 85,000	$ 145,000
Administrative Operational Expenses		**$ 598,750**	**$ 1,232,500**		**$ 1,485,000**	**$ 2,770,000**		**$ 2,020,000**	**$ 3,507,500**		**$ 2,372,500**	**$ 3,860,000**
Travel Expenses	-	$ -	$ -	167	$ 198,000	$ 396,000	500	$ 594,000	$ 1,188,000	1,000	$ 1,188,000	$ 2,376,000
Housing Expenses	-	$ -	$ -	217	$ 630,400	$ 1,674,600	650	$ 1,887,600	$ 5,014,800	1,300	$ 3,775,200	$ 10,029,600
Meal Expenses	-	$ -	$ -	217	$ 133,400	$ 344,520	650	$ 400,200	$ 1,033,560	1,300	$ 800,400	$ 2,067,120
In-residence Activity Expenses	-	$ -	$ -	217	$ 274,600	$ 686,500	650	$ 822,000	$ 2,055,000	1,300	$ 1,644,000	$ 4,110,000
Miscellaneous	-	$ -	$ -	217	$ 343,250	$ 1,029,750	650	$ 1,027,500	$ 3,082,500	1,300	$ 2,055,000	$ 6,165,000
Student & TA In-Residence Expenses		**$ -**	**$ -**		**$ 1,579,650**	**$ 4,131,370**		**$ 4,731,300**	**$ 12,373,860**		**$ 9,462,600**	**$ 24,747,720**
Travel Expenses	-	$ -	$ -	27	$ 151,200	$ 324,000	63	$ 352,800	$ 756,000	126	$ 705,600	$ 1,512,000
Housing Expenses	-	$ -	$ -	27	$ 124,200	$ 668,250	63	$ 289,800	$ 1,559,250	126	$ 579,600	$ 3,118,500
Meal Expenses	-	$ -	$ -	27	$ 31,050	$ 120,285	63	$ 72,450	$ 280,665	126	$ 144,900	$ 561,330
In-residence Activity Expenses	-	$ -	$ -	27	$ 21,600	$ 81,000	63	$ 50,400	$ 189,000	126	$ 100,800	$ 378,000
Miscellaneous	-	$ -	$ -	27	$ 27,000	$ 121,500	63	$ 63,000	$ 283,500	126	$ 126,000	$ 567,000
Faculty In-Residence Expenses		**$ -**	**$ -**		**$ 355,050**	**$ 1,315,035**		**$ 828,450**	**$ 3,068,415**		**$ 1,656,900**	**$ 6,136,830**
Housing Expenses	-	$ -	$ -	8	$ 12,800	$ 32,000	40	$ 64,000	$ 160,000	40	$ 64,000	$ 160,000
Living Stipend	-	$ -	$ -	8	$ 12,800	$ 25,600	40	$ 64,000	$ 128,000	40	$ 64,000	$ 128,000
Product Budget or Seed Investment	-	$ -	$ -	2	$ 30,000	$ 50,000	8	$ 120,000	$ 200,000	8	$ 120,000	$ 200,000
Travel Expense - Faculty/Advisors	-	$ -	$ -	8	$ 11,200	$ 16,000	8	$ 11,200	$ 16,000	8	$ 11,200	$ 16,000
Housing Expenses - Faculty/Advisors	-	$ -	$ -	8	$ 11,200	$ 40,000	8	$ 11,200	$ 40,000	8	$ 11,200	$ 40,000

Dual Program Model												
Detailed Budget												
	Phase 1			**Phase 2**			**Phase 3**			**Phase 4**		
	February 2018 - January 2019			**February 2019 - January 2020**			**February 2020 - January 2021**			**February 2021 - January 2022**		
Description	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**	**FTE/Units**	**Low**	**High**
Meal Expenses - Faculty/Advisors	-	$ -	$ -	8	$ 2,800	$ 7,200	8	$ 2,800	$ 7,200	8	$ 2,800	$ 7,200
Faculty/Advisor Compensation	-	$ -	$ -	8	$ 21,333	$ 53,333	8	$ 21,333	$ 53,333	8	$ 21,333	$ 53,333
Incubator Expenses (Optional)		**$ -**	**$ -**		**$ 102,133**	**$ 224,133**		**$ 294,533**	**$ 604,533**		**$ 294,533**	**$ 604,533**
Research Investment		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Office of Student Affairs		$ 11,250	$ 37,500		$ 38,250	$ 111,563		$ 75,000	$ 115,000		$ 75,000	$ 115,000
Admissions Office		$ 28,125	$ 56,250		$ 95,625	$ 143,440		$ 130,000	$ 170,000		$ 130,000	$ 170,000
Financial Aid Office		$ 28,125	$ 56,250		$ 95,625	$ 143,440		$ 130,000	$ 170,000		$ 130,000	$ 170,000
Library Support		$ -	$ -		$ 51,000	$ 76,500		$ 80,000	$ 120,000		$ 80,000	$ 120,000
Health Services		$ -	$ -		$ 102,000	$ 153,000		$ 135,000	$ 175,000		$ 135,000	$ 175,000
Student Counseling		$ -	$ -		$ 63,750	$ 95,625		$ 85,000	$ 125,000		$ 85,000	$ 125,000
Academic Affairs		$ 9,375	$ 22,500		$ 31,875	$ 47,814		$ 45,000	$ 85,000		$ 45,000	$ 85,000
Administrative Affairs		$ 9,375	$ 22,500		$ 31,875	$ 47,814		$ 45,000	$ 85,000		$ 45,000	$ 85,000
Other Institutional Costs		$ 18,750	$ 37,500		$ 95,625	$ 143,440		$ 125,000	$ 165,000		$ 125,000	$ 165,000
Educational Support Expenses		**$ 105,000**	**$ 232,500**		**$ 605,625**	**$ 962,636**		**$ 850,000**	**$ 1,210,000**		**$ 850,000**	**$ 1,210,000**
Adjusted Educational Support Expenses (60%)		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**		**$ -**	**$ -**
Campus Facilities Lease/Management Fee		$ -	$ -		$ 80,000	$ 120,000		$ 80,000	$ 120,000		$ 80,000	$ 120,000
Equipment Leases		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Scholarships		$ -	$ -		$ -	$ -		$ -	$ -		$ -	$ -
Total Expenditures		**$ 1,632,950**	**$ 3,220,100**		**$ 5,402,057**	**$ 11,927,778**		**$ 10,722,835**	**$ 24,967,828**		**$ 18,178,637**	**$ 43,825,323**
Total Expenditures per Student		$ -	$ -		$ 27,010	$ 59,639		$ 53,614	$ 124,839		$ 90,893	$ 219,127
Annual Net Profit/(Loss)		**$ (1,632,950)**	**$ (3,220,100)**		**$ (1,802,057)**	**$ (7,527,778)**		**$ (732,835)**	**$ (12,757,828)**		**$ 2,611,363**	**$ (18,415,323)**
Cumulative Net Profit/(Loss)		**$ (1,632,950)**	**$ (3,220,100)**		**$ (3,435,007)**	**$ (10,747,878)**		**$ (4,167,843)**	**$ (23,505,707)**		**$ (1,556,480)**	**$ (41,921,030)**
		$ 2,426,525										

Convening of US University Representatives		
Budget		
Description	**Low**	**High**
University Representative Expenses		
Airfare	$ 8,400	$ 20,000
Airport Transportation	$ 300	$ 600
Housing Montevideo	$ 3,600	$ 15,000
Housing Punta del Este	$ 1,200	$ 5,000
Meals	$ 1,200	$ 3,600
Refreshments	$ 60	$ 200
Meeting space	$ 2,500	$ 6,000
Local transportation	$ 360	$ 1,200
Convening Supplies	$ 120	$ 500
Per Diem	$ 6,000	$ 20,000
Total University Representative Expenses	**$ 23,740**	**$ 72,100**
Uruguayan Attendee Expenses		
Meals	$ 300	$ 720
Refreshments	$ 60	$ 160
Local Transportation	$ 360	$ 960
Convening Supplies	$ 120	$ 400
Total UY Attendee Expenses	**$ 840**	**$ 2,240**
US Consultant Travel Expenses		
Airfare	$ 8,400	$ 12,000
Airport Transportation	$ 300	$ 360
Housing Montevideo	$ 3,600	$ 9,000
Housing Punta del Este	$ 1,200	$ 3,000
Meals	$ 1,200	$ 2,160
Refreshments	$ 240	$ 480
Local transportation	$ 360	$ 720

Convening Supplies	$ 120	$ 300
Total US Consultant Expenses	**$ 15,420**	**$ 28,020**
Total Expenses	**$ 40,000**	**$ 102,360**

Notes	
1	Tuition and fees for the purposes of this financial model have been set at $15,000 for Uruguayan students and $25,000 for students outside of Uruguay (+/- 10%)
2	University contributions are one of the ways which Universities can become partners for this program. For the purposes of this model these are not yet calculated
3	Uruguay and IDB contributions are the investment in the program to cover expenditures not covered by tuition and other revenue sources. For the purposes of this model these are not yet calculated.
4	There is the possibility for additional revenue from renting office space within the campus or buildings.
5	Adjunct faculty is calculated based on the assumption of 4 courses per trimester and 3 trimesters per year during Phase 2. Phase 3 includes 3 additional adjunct faculty per trimester to account for the variety of specializations which can be offered. Phase 4 includes increased faculty to account for the anticipated higher enrollment. Participating in the program Kickoff will be included in the teaching compensation.
6	Teaching assistants will be needed at the rate of 1 TA per 25 students per course per trimester.
7	Books and Subscriptions includes subscription rate for MOOCs estimated at $500 per year, based on Coursera rate of $49 per month.
8	Faculty Development calculated assuming that 50% of educational administration and faculty (including adjuncts) will received faculty development per year.
9	Travel expenses assume that 50% of all students, 1/3 of total TAs (those working during the current trimester) and all RAs will attend the in-residence portion of each trimester.
10	Includes allowance for travel or activities within the in-residence portion of each trimester (e.g. visits to local startups).
11	Travel expense is calculated for all faculty to attend in-residence portion of each trimester.
12	Housing expense and Living Stipend for Incubator is based on 4 months. Living stipend is meant to cover meals and other personal expenses not provided by the program.
13	Product budget or seed investment is meant to be used for the project or startup itself and not for living or personal expenses
14	Travel expenses for faculty and advisors calculated as one visit (7-10 days) per month during the incubator stage.
15	Faculty/advisor compensation for incubator calculated at 1/3 of regular adjunct rate.
16	Cost of campus facilities (either lease or purchase) is not calculated for this operational model as it is a capital investment. A portion of the cost of the campus/building could be offset by renting out space within the building.

17	Initial specialties will not be hardware intensive. Will seek corporate sponsorships for future hardware and lab equipment intensive specialties.
18	Scholarships have not been calculated for the purposes of this model. Scholarship calculation would be dependent on tuition rates.
19	For the in-residence program, students would pay a housing fee equal to the housing expense of the program.
20	In-residence TAs will be needed at the rate of 1 TA for every 25 students per semester. These are meant to supplement the online TAs by being in-residence with the students.
21	For the in-residence program students will be responsible for their own travel expenses.
22	Housing expenses will be paid for by students as additional fees for the in-residence program.
23	Includes allowance for travel or activities within the in-residence program once per month (e.g. visits to local startups).
24	Faculty/TA in-residence expenses include two visits (1 faculty and 1 TA) per course per trimester.

Assumptions										
	Low	**High**								
Revenue										
University Contributions	$ -	$ -								
Faculty/TA Compensation										
Adjunct Rate (per trimester)	$ 8,000	$ 20,000								
TA (per trimester) - remote rate (US bas	$ 1,800	$ 3,000								
TA (per trimester) - in-residence rate (lo	$ 3,000	$ 5,000								
Number of Adjunct Faculty										
Phase 2										
Kick off										
assumes that faculty are not paid additionally for kick-off										
Trimester 1	assumes 2 specialization (with 12 courses each one); assumes that one faculty teaches two modules per trimester									
Trimester 2										
Trimester 3										
Phase 3										
Kick off										
Trimester 1	assumes 4 specializations (with 12 courses each one); assumes that one faculty teaches two modules per trimester									
Trimester 2										
Trimester 3										
Phase 4										
Kick off										
Trimester 1	assumes 4 specializations (with 12 courses each one); assumes that one faculty teaches one module per trimester									
Trimester 2										
Trimester 3										
assumes that core courses can be taught by one faculty across all specializations										
assumes consecutive courses are 1 faculty (e.g. 4 course MOOC = 1 adjunct)										
TA to Student Ratio										
# of Trimesters										
# of courses per student per trimester										

In-residence expenses		
Travel (per round trip per person) to/fro	$ 1,400	$ 2,000
Travel (per round trip per person) within	$ 750	$ 1,500
Student housing per night	$ 100	$ 200
Faculty housing per night	$ 200	$ 500
Meals (per person per day)	$ 50	$ 90
Activity Expense (per trip)	$ 200	$ 500
Miscellaneous (per trip)	$ 250	$ 750
Hybrid Model		
Tuition Rate		
Uruguay Student-Faculty	$ -	$ -
Uruguay Student	$ 13,500	$ 16,500
Latin American Student	$ 22,500	$ 27,500
Outside of Latin America Student	$ 27,000	$ 33,000
Housing Fee	$ -	$ -
Meal Fee	$ -	$ -
Number of in-residence sessions per year		
Total travel days	23	33
Kick off	2	3
Trimester 1	7	10
Trimester 2	7	10
Trimester 3	7	10
In-Residence Model		
Program Length (months)		
Tuition Rate	$ -	$ -
Uruguay Student-Faculty	$ -	$ -
Uruguay Student	$ 13,500	$ 16,500
Latin American Student	$ 22,500	$ 27,500
Outside of Latin America Student	$ 27,000	$ 33,000
Housing Fee	$ 3,600	$ 9,000

Meal Fee	$ -	$ -								
Incubator										
Time Period (months)										
Student Housing per student per month	$ 400	$ 1,000								
Living Stipend per student per month	$ 400	$ 800								
Seed Investment per team	$ 15,000	$ 25,000								
Faculty/Advisor Compensation	$ 2,667	$ 6,667								
Faculty/Advisor Trip Length	7.00	10.00								
Convening										
Number of University Representatives	6	10								
Number of UY Attendees	6	8								
Number of US Consultants	6	6								
Total Days	4	4								
Airfare per person (round trip)	$ 1,400	$ 2,000								
Airport Transportation per person	$ 50	$ 60								
Montevideo Hotel per night	$ 200	$ 500								
Nights in Montevideo	3	3								
Punta del Este per night	$ 200	$ 500								
Nights in Punta del Este	1	1								
Meals per person per day	$ 50	$ 90								
Refreshments per person per day	$ 10	$ 20								
Other local transportation	$ 60	$ 120								
Per diem	$ 250	$ 500								
Convening Supplies per person	$ 20	$ 50								