THE EXPERIENCE OF THE IDB'S INNOVATION LAB

BOOKLET INFORMATION

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FOREWORD

Social innovation can be a misunderstood and often hazy concept, which is why we prefer to work with a straightforward definition: Social innovation is a fresh way of thinking to resolve relevant problems. *Who says which problems are relevant*? The Excluded. *Who provides fresh ideas*? Firms, innovators, universities, nongovernment organizations (NGOs), and, of course, the Excluded.

We believe we have a story that will inspire new ways of approaching international development. During the past five years, the Innovation Lab (I-Lab), born out of the Division of Competiveness and Innovation (CTI) at the Inter-American Development Bank (IDB), has been promoting innovative solutions that have developed directly with and for the excluded communities, people, who find themselves outside of markets and who are often marginalized. The I-Lab has co-financed over 20 projects that have addressed the needs of the Excluded and have provided solutions that are truly sustainable, most of which have won international recognition and awards in innovation. Our approach is based on three simple, straightforward principles:

First, we recognize that we cannot assume to know the problems and needs of people who find themselves excluded from the marketplace and off the radar of public service and outreach. To assume this is risky. Instead, we have sought their input. We have worked to include these groups and have learned, directly from them, what their challenges are. The members of traditionally excluded communities are the only ones who have the knowledge required to identify the right solutions.

Second, we have acknowledged the need for interdisciplinary collaboration. The problems of the excluded communities cannot be solved through a single-sector approach; they are too complex and inherently multifaceted. We work, therefore, in collaborating with professionals from sectors across the IDB, as well as with the various stakeholders of firms and universities, as well as private and public sector institutions.

Third, we believe that new technologies will offer fresh approaches with which to identify and resolve old problems. Why continue designing solutions the way we did 10—or even 5—years ago? We now have the technology to address problems with a wide variety of tools to communicate with people across countries and communities. We are putting this to work!

What is our approach? We will focus on the plethora of unexplored ideas that excluded communities people have. We will provide the platforms through which they can state their preferences, problems, and knowledge. Some of these platforms already have been made available, such as crowdsourcing. As soon as we have a clear understanding of their problems, we will work with firms, universities, and NGOs to find the best solutions.

This publication compiles a selection of stories from the Innovation Lab (I-Lab) of the IDB. We believe that effective collaboration among people from different backgrounds opens up a world of creative opportunities, but we also know how difficult it is to put this into action. I-Lab has experimented with a new way of identifying the problems, working directly with excluded communities to understand their challenges, and inviting them to join in the innovation process. Once the problems are understood, we build bridges to facilitate cooperation among diverse groups within the IDB and beyond, to turn these problems into ideas that can inspire innovation.

For the I-Lab, while technology has been the vehicle and interdisciplinary collaboration has been the fuel, the addition of the excluded communities into the innovation process has been the ***key ingredient.*** We are happy to share our experiences and lessons we have learned through this publication.

Sincerely, The I-Lab Team.

TABLE OF CONTENTS

1 | OUR APPROACH: TECHNOLOGY

Imagine a world where no one can hear your voice—where no one knows the challenges you face. Although the solutions to your problems do exist, you cannot access them. The people who might have these solutions and want to make them available to you simply do not know where you are, or what exactly you need.

The world described above is a world of problems. It represents impoverished small towns and excluded communities, comprised of people who cannot communicate their choices because they are often unable to enter the marketplace and thus cannot take part in the decision making that could influence the design of public services in their favor.

One of the main difficulties related to working with excluded and marginalized groups—the potential beneficiaries—is not knowing the challenges they face and, therefore, not being able to understand the world in which they live. By connecting with, and involving, potential beneficiaries in the process of innovation, however, we are able to better understand their hardships and shape solutions, accordingly.

Technology now offers new tools with which to tackle the challenges of international development in a different way: by encouraging the intended beneficiaries to leap from the periphery of the innovation process into its center. Technology can facilitate communication, providing a voice for every person; it can ensure that development is demand-driven which, in turn democratizes the process of solutions. Virtual platforms and social media, for example, have the ability to link challenges to solutions, just as they can link people at both ends of the spectrum. In other words, they can connect those with a problem with those who have the ideas to resolve it.

To us, social innovation comes from a fresh way of thinking that can introduce new products, services, and processes to improve the ability of governments, the private sector, and NGOs to better address the needs of society. Technology can also play a major role in providing the mechanisms to allow people to communicate the challenges they face which, in turn, will contribute to their solutions. These challenges will turn into inspiration, and creative thinkers will soon see them as opportunities to design and develop high-impact innovations.

How and why should we promote innovation as a tool to meet today's social demands? We live in an age of unprecedented technological change. Every day, new technologies emerge and are introduced into the market. As society changes, these new and emerging tools can ensure that public policy can respond to the social needs in real time, by facilitating and building collaboration among different groups. Policies that address social adversities can be designed more rapidly and efficiently if we involve the excluded communities —not only as potential beneficiaries, but also as active stakeholders within the innovation process.

95% OF INBRED DESIGNS FOR 5% OF THE POPULATION
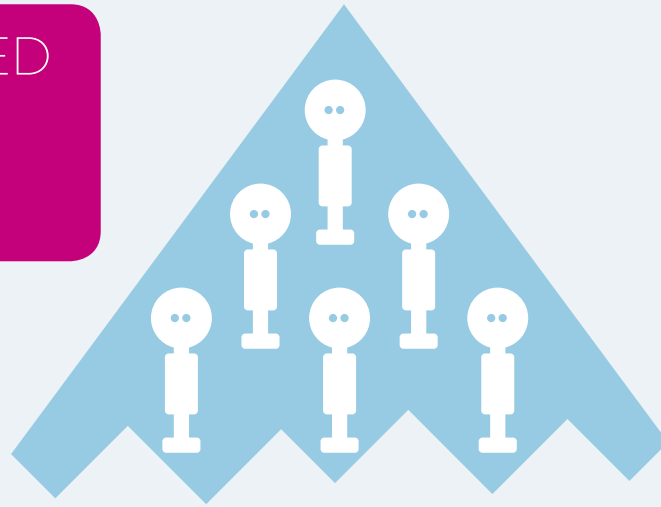
KNOWLEDGE DISCONNECT

UNDISCOVERED WORLD FOR INNOVATION

How can WE make social innovation possible?

Involving beneficiaries ensures that solutions are relevant and sustainable:

When we talk about the world of the very poor and the excluded, we often assume that we know what the most relevant problems are; this is a serious mistake. We are talking about groups that cannot reveal their preferences because they are often excluded from market research and decision making processes of public services.

REQUIRES THE INVOLVEMENT OF THE FINAL BENEFICIARIES IN THE PROCESS & SCALABILITY

IDEAS FROM THE PERIPHERY TO THE CENTER

Successful social innovation

• Requires the involvement of the final beneficiaries in the innovation process and scalability
• Involving beneficiaries ensures that solutions are relevant and sustainable
• We need to help the intended beneficiaries jump from the periphery to the center of the innovation process; because we need to start with their knowledge and perspective. It is necessary to communicate their most urgent challenges

11

2 | OUR FOCUS: THE PROBLEM

In 2008, the Science and Technology Division of the Inter-American Development Bank (IDB) launched a call for proposals. Its idea was to explore how innovation and technology could be used to improve income, education, and wellbeing in the Latin American and Caribbean (LAC) region, and ways in which to promote the inclusion of marginalized groups in this region. Universities, NGOs, and businesses were encouraged to submit project proposals. Although there were many qualified finalists, we took a step back to examine our approach, asking ourselves whether we really were addressing the most relevant problems of the Excluded. Could we rely on the experts to understand the problems that were faced by excluded communities?

1)
PEOPLE
VOICE THEIR
PROBLEMS

2)
PROBLEMS
RANKED BY
THE CROWD

3)
CROWD
INSPIRES
IDEAS

4)
IDEAS COMPETE
AND BECOME
SOLUTIONS

5)
SOLUTIONS ARE
FINANCED
BY THE I-LAB

6)
HIGH-IMPACT
INNOVATIONS
ARE CREATED

Though the projects we selected were successful in achieving their goals, we realized that we had to reexamine our approach: had those projects actually resolved the problems of the excluded communities? We had not actually involved, or even asked, the intended beneficiaries of these projects what they felt they needed. In order to do so, we realized that a clearly defined target group was required and the use of a platform was essential through which the people we wanted to help could have a voice.

Before designing a second call for proposals, therefore, we chose one of the most excluded groups in the world as the target beneficiaries: people with disabilities. People with disabilities often live in poor conditions. The cycle of poverty that ensnares them is the reality of the hurdles that

all people living under such circumstances face: the lack of access to education; resources for quality education; employment opportunities; and exclusion by their own communities.

To ensure that targeted beneficiaries would participate from the outset, we launched a Problems Contest, where individuals and groups were able to voice an issue they viewed as relevant to the inclusion of people with disabilities. The responses to the contest were posted on an interactive website, where they could be viewed and voted on, based on impact and importance.

This interactive competition, under a program we called "A World of Solutions: Innovations for People with Disabilities", was, ultimately, a key component of the Innovation Lab. It allowed people with disabilities, Disabled People's Organizations (DPO), and others interested in the topic to share, vote, and prioritize what they felt were the most relevant barriers facing social and economic inclusion. The issues that emanated from the competition brought to light a wealth of information about the realities faced by people with disabilities, ranging from the lack of educational resources for children to the difficulties of mobility in a wheelchair, especially during the rainy season.

The Problems Contest at the heart of the initiative. It gave people with disabilities an opportunity to be heard and, therefore, directly contribute to which problems should be tackled. The contest lasted for six weeks and the three problems that were considered the most important came in with a total of over 150,000 votes from across the region. The website received 1.6 million hits in three months, with 49 problems having been presented from 58 different countries. The leading problem received 61,160 votes.

What we found was surprising. We discovered issues that we were not aware of and, quite frankly, were clueless about. *We had assumed that the problems faced by the disabled, specifically a person in a wheelchair, or a person that is blind or deaf, were obvious. But they are not.*

Did you know that reading is one of the main challenges for deaf people? Because the relationship that a deaf person has with words is different to a person with hearing abilities, the learning process differs.

Do you know how difficult the early mental stimulation for blind children is, when they are unable to recognize colors?

Did you know that most types of existing wheelchairs are completely useless in the developing world?

We were not aware of these problems because we live in a different world. The five problems that were voted the highest were, subsequently, converted into categories for a second competition: the Solutions Contest. For the Solutions Contest, we received over 200 project proposals with solutions to the five main problems. A high-level panel of disability experts, technical specialists, and academics selected the best projects. This contest resulted in providing funding and technical expertise to innovators, companies, and universities that could identify and develop the solutions to these five top challenges—those that were pinpointed and prioritized by the very ones who were at the heart of the problem. As a result, those in the margins—the potential beneficiaries—were able to leap into the center of innovation.

We have attempted to seek ways in which to contribute to the resolution of the issues that people with disabilities faced—and we have been successful! In so doing, an approach that we have since applied to other sectors in the international development field was brought to light.

OUR TECHNOLOGY: CROWDSOURCING

The I-Lab builds bridges to connect the excluded communities to the innovation process. It links the abilities of governments, universities, NGOs, and the private sector to the challenges that are identified. From the start, I-Lab has served as an interactive platform on which people are able to share ideas and possible solutions to the social and economic obstacles that they consider compelling. This can be done by either starting a thread of comments, sharing a particular challenge with the I-Lab team, or participating in an open phone call. Since its inception, I-Lab has transformed into a virtual platform that uses crowdsourcing to foster the exchange of original ideas. In turn, it can identify high-impact solutions to diverse development problems in the LAC region.

"Crowdsourcing" is traditionally conceived as a process, whereby certain activities are outsourced through a crowd of people (usually in dispersed locations), who will respond to a call to solve an issue. We decided to flip this concept upside-down to focus, first, on the problem rather than the solution. The I-Lab platform follows seven steps to promote innovation through crowdsourcing:

(1) People voice their problems.
(2) The crowd ranks the problems.
(3) The crowd inspires ideas, resulting in collaboration among different stakeholders.
(4) Different ideas compete with each other and develop into solutions.
(5) I-Lab and its partners fund the solutions.
(6) High-impact innovations are created.
(7) The problems are resolved.

The mechanism for creating a Problem Contest and Solutions Contest has proved to be effective in generating social innovation. Given the complexity of social issues at hand, the interdisciplinary relationships and approaches that can result from connecting people, especially those who are marginalized, with those who can develop the solutions are essential to the design of different types of innovation.

DON´T ASSUME YOU KNOW WHAT THE MOST RELEVANT PROBLEMS ARE.
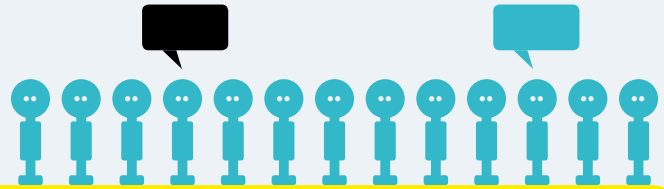
EMPOWER BENEFICIARIES TO COMMUNICATE THEIR MOST URGENT CHALLENGES.

SHARE THEIR CHALLENGES SO THAT THEY TURN INTO INSPIRATION.

CALL CREATIVE THINKERS TO SEIZE THE OPPORTUNITY OF DEVELOPING INNOVATIVE SOLUTIONS.

How can WE make social innovation possible?
The first step of the social innovation process is to clearly define the problem. The significance and rigor required to get this step right is often severely underestimated.

Those challenges will turn into inspiration and will be seen by creative thinkers as opportunities for developing innovative solutions.

17

3 | OUR CALL: PUBLIC-PRIVATE PARTNERSHIPS

While governments, the private sector, and civil society each have their strengths and resources to address problems in the LAC region, no single sector has had the ability, to date, to tackle the complexity of development challenges in isolation.[1] Marginalized groups are not homogenous and, therefore, face differing obstacles that vary from one community and country to another, respectively. The multifaceted nature of the issues, raised by potential beneficiaries, requires multi-stakeholder partnerships and cross-sector approaches.

[1]This section is based on Guaipatin (2013).

By connecting initiatives and leveraging resources and expertise, partnerships can be a key component for inclusive development, as well as the backbone of any social innovation strategy. Collaboration between the public and private sectors is indispensable, not only throughout the innovation process, but especially when considering the scalability of the solution. To achieve effective social impact, the solution has to be scalable and, thus, an innovation should be applicable to more than one location and the benefits must reach a critical mass of people.

With regard to scalability, we inevitably need to evaluate the intersection and simultaneous involvement of sectors and disciplines, as well as the partnerships between the private sector, governments, knowledge institutions, and stakeholders.

The private sector has the capability and criteria to recognize which innovations are scalable through the application of a business model. Government participation is also essential where social issues and innovations are concerned, since the life cycle of the innovation, the nature of the problem, the kind of beneficiaries, and the providers that bring the solution to scale are all dependent upon it.

The most effective ideas that surface from social innovation can be identified, nurtured, adapted, and scaled up more rapidly and sustainably through multi-stakeholder collaboration. The relationships that are formed need to be cross-sectorial and multidimensional, in the same way that problems are multifaceted.

4 | OUR STORIES: INNOVATION IS EVERYWHERE

We have compiled a collection of projects that have generated from I-Lab, including their respective objectives, challenges, and the creative and impacting solutions. By building bridges between people from different worlds and fields of expertise to those with the problems and those with the solutions, these projects have developed into ideas that have inspired innovation.

We have grouped the collection of projects along thematic lines to demonstrate the wide range of issues that came out of the problem contests that were held and to highlight the collection of innovative solutions that emerged to tackle the challenges in a creative, effective and collaborative manner.

BRIDGING THE ACCESS GAP: A QUALITY EDUCATION FOR ALL

COLOMBIA: AND THE BLIND WILL SEE

How do we teach geometry to a child who cannot see a circle or visualize a triangle?

Many blind children receive low-quality education, which creates gaps in the learning process, leading to difficulties of their inclusion in society. With no access to appropriate resources (e.g., technology such as computers and special software, or books in Braille), blind children rely only on listening and memorizing, which leads to gaps in learning ability, especially with regard to the more visual or spatial areas of learning. With

STUDENTS LEARNED GEOMETRIC & MATHEMATICAL CONCEPTS AND THIS HELPED THER ORIENTATION & MOBILITY SKILLS

fewer students per teacher, hands-on techniques can be applied, with more time per student with the teacher. How can a teacher have the time to provide a blind student the attention he/she requires when a large classroom comprises mostly children who can see?

Law in Colombia mandates inclusion: all students with disabilities have the right to attend the school of their choice. However, there are no particular directives or additional resources for integration and, thus, there is a great need for tools that can help the inclusion process of these children.

At the Universidad de Pereira, Colombia, a pair of young entrepreneurs, María Fernanda Zúñiga Zabala and John Guerra Gómez, have founded DUTO S.A., a company that researches, develops and markets technology products for visually impaired students. These products enable the perception of color and images with touch.

IRIS is a device that has two main components: software with a database of educational images and hardware that generates a set of vibrations that can be felt by touching the surface with your hands, enabling one to feel the creation of shapes and the representation of colors through pulsations. The child, for example, will place his/her hands on the device, and the teacher can instruct the device to produce a circle, an image included in the software. The child can then feel the circle being drawn on the device's surface. In addition, each color has been assigned a speed of vibration, so that children can 'read' the color with their fingers. If the circle is red, the student will know by the speed of the pulsations related to that color.

While the educational images may be the most important component of IRIS, the color and shape representation can help make a child feel included among his/her peers. One little girl exclaimed, "Pink is my favorite color!" upon learning the speed of that particular color.

A pertinent advantage of the IRIS device is that a child can also study a particular shape or image as many times as she or he needs to feel comfortable. It will allow a child to learn the shapes at the same pace as his or her classmates, since the teacher can simply send the image from his/her computer to the device.

The team behind IRIS worked actively with schools in Pereira to implement a pilot project. Much time was spent with teachers to raise awareness of the challenges that blind children face in mainstream schools. To effectively carry out the project, the team recruited 12 secondary school students, who were trained as IRIS volunteers and worked with the young children to instruct them on how to use the device. With their engineering expertise, the IRIS team effectively reached out to the professionals in education and pedagogy to ensure that the program would have high impact.

The evaluation of the project demonstrated that students who used the IRIS product, ranked it as one of their favorite activities in school and as having a positive impact on their future aspirations, school engagement, and even school attendance. The results show that IRIS was successful both academically and personally, and that it strengthens the overall wellbeing and confidence of blind children, while easing their academic integration. As a result of its success in Pereira, the project has been scaled up, in collaboration with a school for blind children in Bogota, where IRIS has also achieved equally positive results.

Quality education and comprehensive inclusion for children, who are blind, requires more than technological devices. But each new tool that broadens the educational opportunities for a particular group of children, as IRIS does, brings us one step closer to a truly inclusive school system where all children have equal access and a fair chance for a positive future.

ECUADOR: WHEN CHILDREN START TO DREAM

Imagine 60 children with disabilities living in one of the poorest neighborhoods in Ecuador, with no hopes for a future. Imagine a community that has been marked by violence and a lack of education, where life is difficult for everyone. Within this community, there are 60 children with different disabilities. Imagine the social stigmas and prejudice that surround them, making them feel like a burden to society and leaving no room for hopes and dreams. Imagine how their lives will be marked forever. Can you imagine a positive future for these children? In 2011 we asked them what they wanted to do with their lives. "Nothing," was their answer.

Then, suddenly, these children started to dream. In Santo Domingo de los Tsáchiclas, Fe y Alegría (FyA), a Jesuit-run NGO, operates a school for children with disabilities, including a section for deaf children. The IDB team worked side by side with these 60 children, their community, and their professors to challenge the idea that children with disabilities

have no future. How did we do it? We put technology to work! And we measured its economic impact.

In its basic form, FyA set out to facilitate the access to education for 60 children with disabilities through the use of technology. More importantly, however, this project positively impacted the sense of opportunity of children with disabilities, changing their perception of being a burden to society and increasing the likelihood that they would achieve a tertiary education and, thus, earn a better income.

Without proper access to language, it is very difficult for children to reach their full potential. This applies equally to deaf children and those who can hear. The main difference between them, however, is that those who have hearing abilities are usually immersed in language from the day they are born. They are surrounded by words and speech within their own families and among people around them. Deaf children, on the other hand—and especially those who are not diagnosed as being deaf from an early stage—usually are taught "their" language, sign language, at a much later time.

Through contact with FyA, parents are able to confirm their children's hearing loss, providing them with the first step to consider the appropriate means for a good education. Hearing loss occurs across a spectrum, and a variety of interventions are used (e.g., sign language, speech therapy, hearing aids), depending on the severity of deafness.

Managing a school in a small, remote town is not easy. There was a crucial lack of adapted curricula, teaching materials, and teacher training to provide for deaf children. While in Ecuador's capital, Quito, there is a thriving deaf community that is provided with facilities, Santo Domingo is much smaller and does not have the same resources.

Our team set out to work with FyA's special education department and external technical experts on deaf education. We created an intervention that would improve the education at the school by strengthening teaching resources, increasing the use of teaching materials for deaf children, and improving the perception these students and their families had about themselves and each other.

Parents of children with disabilities tend to have low expectations of their children and are not adequate role models, given that their society often marginalizes them. The children, as a result, have low aspirations. This project promoted inclusive education among the children with disabilities through technology and, in addition, worked towards removing the inherent social stigmas, which hindered the children from achieving their full potential.

Technology can be very useful in the classroom, since it provides teachers with easy access to a variety of educational tools, such as learning software for reading and writing, videos for sign language, and math programs in the form of video games that can make learning fun. However, technology never exists in a vacuum. The project focused on creating an environment that would allow the children the maximum benefit from the use of technology.

Measuring a child's level of happiness, and his/her hopes and dreams for the future, requires an in-depth evaluation and hands-on work. We drew comparisons between motivation and overall sense of opportunities from a pre-identified group of deaf and hard-of-hearing students at the FyA center in Guayaquil to document the changes taking place.

We felt that if the FyA program could increase the likelihood that these students could progress through college, then the financial benefits would be high, given Ecuador's high returns to education. Assuming that (i) the income of someone, who is deaf or hard of hearing and who has completed school (but has not gone to college), is US$360 a month, and (ii) based on an empirical study (Carrillo, 2013), where the returns to university education are 65 percent, we can estimate a total return over the life of the worker of approximately US$45,000. Consequently, with a US$307,000 investment, our project has leveraged the potential future of the salaries of 60 students with disabilities to a total of US$2.7million.

The results of this project are groundbreaking. It is the only experience relating to inclusive education for children with disabilities, to date, in Ecuador and it can serve as an example for the way forward. If we can improve conditions for all children and remove the barriers that prevent their full participation in society, it is a small step towards greater equality. This project is contributing towards current debates in Ecuador regarding a new law that will promote the inclusion of children with disabilities into the educational system. In addition, FyA is replicating their methodology in other centers in Latin America.

ON INCLUSIVE COMMUNITIES

CHILE: DREAMING THROUGH LETTERS

We often hear that approximately 10 percent of the world's population has some type of disability. But what lies behind this number? And what do we really know about the people behind this number? People who are deaf or hard of hearing, for instance, constitute a relatively small part of this number, which means that most of us have little knowledge of what it means to be deaf, or any idea about sign language. Most of us assume that sign language is universal. Sign language is, however, indigenous to a country, stemming from the deaf communities in each country or community.

REACHES ARGENTINA, CHILE, COLOMBIA, MEXICO, URUGUAY, COSTA RICA & SPAIN

Deaf children in developing countries struggle with reading and writing, due to the lack of appropriate educational opportunities, as well as to the fact that the flow of spoken language does not come naturally to those who cannot hear. Professionals concerned with education for the deaf, therefore, promote bilingualism, where sign language—as the second language—becomes the means to teach literacy in the country's spoken language. Deaf children, therefore, have access to what becomes their natural, visual language, as well as the language of the majority. As a result, a child can be bilingual in Chilean Sign Language and in written Spanish. Resources for deaf children in Latin America, however, are still considerably lacking.

At Chile's Catholic University, a group of researchers and professors at the Center for the Development of Technologies for Inclusion (Centro de Desarrollo de Tecnologías de Inclusión (CEDETI)), developed a program, called Sueñaletras, which loosely translates into "dreaming letters." This open-source-learning software uses a combination of images, written language, and sign language to teach deaf children how to read and write by using sign language as a link to written language.

For instance, the word "bear" may appear on the screen, one letter at a time, next to a drawing of a bear. Then the word is finger-spelled, one at a time, and, finally, the sign for the word is made. This allows the child to see the word spelled in Spanish and in sign language, see the written word in its entirety, as well as the sign and the image representing the word. Sign language and fingerspelling, thus, allows the children to learn something new; in this case, written Spanish.

CEDETI adapted Sueñaletras to the sign languages of Mexico and Uruguay, and has standardized the procedures and the programming so that it can be translated in other countries within the region. The program was developed so that it could be easily adapted: the written words and images remain the same, while a team in each country works with deaf children and their teachers to record the signs of that country's sign language.

29

SUEÑALETRAS
Playing with words

wiseawards11

ONE OF THE SIX 2011 WISE AWARDS WINNERS

THE SOFTWARE HAS BEEN DOWNLOADED 22,000 TIMES

Following the IDB's support, CEDETI has been able to secure funding to expand the program further afield, including Argentina, Colombia, Costa Rica, Spain and, most recently, Ecuador and Panama. The streamlined manuals, detailing each step of the process, have made it easy for new editions to be created. The center has won several awards for its work, including the Qatar Foundation's WISE Award for having "a transformative impact on societies and education."

After an evaluation carried out by Gallaudet University in Washington, D.C., the world's only liberal arts college for the deaf and hard of hearing, the project will incorporate more storytelling and will assist children in using full sentences and correct grammar which, in turn, will stimulate their joy of reading and telling stories among each other.

When one observes, a child working with Sueñaletras, and the motivation and happiness of being able to learn new things in an accessible way is evident, it is easy to understand that there is a need to develop and promote these tools. Sueñaletras provides an excellent tool for deaf children, but it also serves another important purpose. It has raised awareness among people, who can hear, about the life, language and dreams of deaf people in Latin America. Sign language is a complete and rich languange in itself. All children who lack hearing abilities should have access to an educational program that can make learning both fun and valuable.

ARGENTINA: ENCOURAGING STORY TIME IN SIGN LANGUAGE

"Abi is my daughter. She is five years old and hard of hearing. A few years ago, we had to move to the coast for economic reasons. Unfortunately there are very few resources here for my daughter's development, so I am constantly looking for ways to help her. Abi used to study sign language in the city, but that was before we moved. She used to go to a school for deaf and hard-of-hearing children, but here on the coast there is no equivalent. Then I discovered Videolibros! What an amazing resource! Thank you for the difference you are making in the life of my daughter." Catalyst of Innovation

Imagine a small child finding a story book, but not having anyone who can read it to her. For deaf children, this is a common occurrence. Their parents may not be familiar with sign language or they fail to recognize the value of learning it.

In Argentina, as in most Latin American countries, deaf children do not have the same access to literature and books as do those who can hear. Argentine Sign Language (LSA, from its Spanish acronym) is a visual language with a grammatical base that differs from Spanish. While storytelling is very common in deaf communities, reading is less so, which impacts the literacy and general education of deaf children. This, in turn, impedes future opportunities in terms of the labor market and overall inclusion into society.

Canales Asociación Civil is an NGO for deaf children in Argentina. It has as its focus the right to play, to have a language, and to have access to quality education. One of Canales' goals is to improve literacy among deaf children. Their proposal to I-Lab was straightforward and essential: To encourage a love of reading in deaf children through video books that combine sign language with popular children's story books. The books were to be published with text, sign language, and voice-over narration. Reading story books is a vital part of childhood and to make it accessible to all children is essential.

Canales is made up of adults and children who are deaf and those who can hear, alike. It is managed by highly skilled professionals, also deaf and with those who have hearing abilities, who have extensive experience in education. The process of creating the Videolibros, as they are called, demonstrated an innovative solution each step of the way. A lot of work went into discussing how the books should be presented to ensure that the videos would be true, both to the original book and to LSA, where the grammar and word order tend to differ from that of Spanish. The question of where the text should be placed, for example, was a vital one. Placing it at the bottom of the page would make it difficult for the viewer

to enjoy both the signs and the text at once. The designers then worked together with the authors and illustrators (who generously donated the rights), to show the text exactly as it is in the book; that is, the actual page of the book serves as the backdrop upon which the signs were placed.

To stress the importance of reading and to capture the reading experience, each video book starts with a child asking an adult to read a story, upon which the reader responds that they will read the book and that reading is not the same as narrating. This methodology was selected after various attempts so as to give deaf children the experience of the closeness that is established between the reader and the words. It required the participation of a group, composed of psychologists, storytellers, communication specialists, technology experts, and others.

The end-product has resulted in something completely new in Argentina and, for that matter, most of Latin America: 15 beautiful video books that are attractive to all children. They incorporate images, text, as well as sign language and voice narration, making them accessible to all children—stories that families can enjoy, together. Since the vast majority of deaf children (around 95 percent) are born into families that are able to hear, these video books give the families the opportunity to come together and bridge the communication gap by sharing the same experience together.

Videolibros have been distributed to throughout Argentina and are available online. The project has won several awards for its innovative and its inclusive approach, including an award from the Clarin Group (a monetary award that has been put towards the production of more Videolibros). The authors, whose books were used for this project, have been extremely pleased with the results. The project is a prime example of one in which the rights and knowledge of deaf people have been put at the forefront of the innovation process, thus creating a product that meets their needs and the needs of the community.

Canales has moved on to publish additional video books. Since the 15 that were financed by the IDB, they have created four more, using classic fairytales, including The Ugly Duckling and Little Red Riding Hood. This project is just the beginning of making story time accessible to all children.

ON EQUAL ACCESS AND INCLUSION

BRAZIL: A USB STICK WITH THE POWER TO LEVEL THE PLAYING FIELD

"There are many people like me, with a thirst for knowledge and with a desire for an education—for life, for a job they love. However, access to education and to employment is not usually a given for people with disabilities, particularly those that are blind. F123 dramatically reduces one of the most obstructive barriers to education and employment for people who are blind, namely the extraordinarily high cost of assistive technologies."
Fernando Botelho, Director of the F123 Group
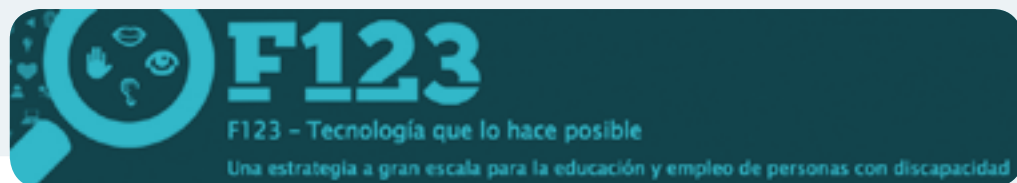
Technology can provide important tools for people with disabilities. The developments have been groundbreaking, especially for people who are blind or have low vision. Through the use of computer software, people have been able to amplify text, read by listening, or write by using voice recognition programs. This signifies important improvements in access to education and jobs for people who are blind. With the right technology, someone who is blind can accomplish everything a person with vision can on a computer.

However, the different software programs that amplify text or read a program out loud are very expensive and not readily available in developing countries. In countries, such as France and Sweden, the government or an employer can provide the necessary software to users, enabling them to be on an equal footing with other job seekers or with their schoolmates. In developing countries, however, most people do not have access to these programs, which imposes an additional challenge for a student or jobseeker, already at a disadvantage.

To bridge the gap, Brazilian inventor and social entrepreneur, Fernando Botelho, came up with a simple and brilliant idea. He developed a set of open-source software programs that can make a computer accessible to those who are blind or have low vision—with everything contained within a small USB stick—which has been distributed to users in Latin American countries. This package, called F123 Visual, has all the typical applications needed for work or study: spreadsheets, word processor, email, instant messaging, and web browser, as well as a screen magnifier and screen reader. The package includes a special application that can convert scanned images into text. F123's proposal to the IDB was simple, yet showed great potential impact: two versions (Spanish and Portuguese) were to be distributed in selected countries, in parallel with workshops for users to learn how to use the programs, to be applied at work, at study, or for job searches.

Workshops were organized in six countries in the LAC region, with over 200 participants who shared the software with their respective organizations, educational institutions, and companies. The media in many of the countries found the project to be fascinating and showcased the benefits through numerous media channels.

35

The fact that Botelho, is blind seems to have played a minor role in his life and achievement, but for many of the participants, a highly successful inventor and businessman, who is also blind, made a great impact. Mr. Botelho serves as a role model. The project continues to provide support to users of F123, and the participants stay connected through online groups, through which they can expand their knowledge and help one another get the most out of the programs.

As F123 strives to make its USB stick available to blind people throughout Brazil (and eventually throughout the LAC region), a strong partnership with the government would be favorable in terms of the collaboration. This is needed to raise awareness, distribute the product and promote its success throughout the country – something that is difficult for a small company to do on its own, when it has a product that can challenge the problems faced by a specific group within the population. As governments strive for equality, particularly in the LAC region, where inequality is rampant, innovations such as F123 are indispensable to bridge the gaps in education and employment and to level the playing field for all members of society.

F123 is a prime example of the enabling nature of technology. It is a small key that can open many doors.

EL SALVADOR: FINANCIAL INCLUSION FOR PEOPLE WITH DISABILITIES

Do you have a debit card? What about a credit card? Did you know that in some countries banks can deny certain financial services to blind people because of the (perceived) risk they represent in handling funds through cards they "cannot see." But when blind people in El Salvador were consulted, they expressed serious concerns about not owning a credit card, especially since the currency bills in El Salvador are all the same size, making them indistinguishable for someone who cannot see.

The denial of a credit or debit card to a blind person comes down to prejudice and misinformation. But how would one know the difficulty imposed on a blind person, if a blind person has never been consulted? The IDB's I-Lab, in a cross-institutional collaboration with the IDB's Department for Financial Markets (FMK) and the Multilateral Investment Fund (FOMIN), called for proposals relating to inclusive finance projects for disabled people in the region. Three banks in the region were selected to implement the most powerful solutions, one of which is BAC

Credomatic of El Salvador, which is currently working towards a change. Through its use of technology, BAC is creating more inclusive bank services for disabled people, thus removing the barriers that exacerbate discrimination and exclusion. It is promoting equal access to financial services.

BAC asked itself whether the denial of credit and debit cards to blind people was a practice that was based on risk evidence. It established that it was not. There is no difference, in terms of risk, whether a blind person or one who is not blind uses a credit or debit card. Actually it is quite the opposite. Blind people find that it is less risky for them in making transactions, since they would be able to prove a purchase with a receipt, if someone took advantage of them.

Innovation is the result of questioning whether one is doing the best one can. BAC now provides credit and debit cards to blind people, and it is expected that other financial intuitions will follow this practice.

TRAVELS
80% FASTER

GUATEMALA AND HAITI: THE "ALL-TERRAIN BULL" WHEELCHAIR

Imagine taking a shopping cart, filling it with heavy stones and pushing it through a garden. No matter how well kept the grass is, it will be difficult to push the cart, since the surface is not paved. If the cart weighs the same as the person (approximately 65 kilos), how hard would it be to push it? Imagine having to push that shopping cart several times a day, on one's way to school, to work, and back home—every day. For the rest of your life.

Now, imagine sitting in a wheelchair, the kind of chair you have probably seen in hospitals or even at airports. Imagine using only the strength of your arms to travel a few kilometers a day through dirt, sand or stone roads. It sounds complicated and exhausting, right?

Fanny Quispe from Villarica, Peru, who has been in a wheelchair since the age of 20, made us aware of this challenge. What is the challenge?

39

POWER OVER OBSTACLES WITH 50% MORE TORQUE

iNNOVATION lab

Wheelchairs are typically made to move in-doors, inside hospitals, or inside a house. Although the wheelchair has been modernized, a wheelchair that works in the context of developed countries does not necessarily work for a person living in conditions where Fanny lives.

Port-au-Prince, Haiti, is an example of a terrain that has steep ascents and descents, not to mention rubble, large cracks in pavements, and dirt as well as stone roads. How can a person in a wheelchair navigate this landscape on a daily basis, especially if they want to attend school, or work somewhere that is not in their own backyard? How are people in wheelchairs expected to get around in cities like Quito, Managua, or Port-au-Prince?

When the I-Lab called for a solution to this problem, Amos Winter, a professor at the Massachusetts Institute of Technology (MIT), submitted a proposal. He himself has no disability, nor does anyone in his family. Amos is Professor of sub-sea robotics and, when he learned about this issue, he realized that he had the knowledge and expertise to enable him to create a solution.

So Amos and his team designed and developed a functional, inexpensive wheelchair (which respects the postural and medical needs of the user, is not too heavy, and provides adequate stability) that will allow the user to move quickly in difficult environments. This wheelchair now, considered to be the best wheelchair in the world—it has been designed in a way that anyone who repairs bicycles can be easily be trained to assemble and repair it.

Thanks to an alliance with the Transition Foundation, located in Antigua, Guatemala, and to the I-Lab, the MIT students involved were able to distribute 20 prototypes of the chair to local users, monitor its usage, gather suggestions for improvement and try different materials. Made out of bicycle parts (the wheels, chain, etc.), this chair was immediately dubbed "the all-terrain bull" by one of the Guatemalan users, due to its main feature: the wheelchair has two vertical bars that are pushed by the user to move the wheels or pull it to a stop. These bars, according to the torque principle—and depending on the thrust position—allow the user

How It Works

GRABBING HIGH ON THE LEVERS INCREASES TORQUE

GRABBING LOW ON THE LEVERS INCREASES ANGULAR VELOCITY

to move easily on poorly paved surfaces or on ramps, or even reach high speeds on flat surfaces.

The tests, carried out by the team of the NGO GRIT (Global Research Innovation and Technology), funded by MIT students in Africa—and later in Guatemala with the support of IDB's I-Lab—have proved that the chair allows the user to move up to 80 percent faster in flat surfaces and with 50 percent more torque on ramps or poorly paved surfaces.

Given its success in Antigua, the I-Lab decided to take the wheelchair to Haiti, where the 2010 earthquake caused an increase in amputations and disabled people. The prototype testing in Haiti was coordinated in collaboration with partners, including Healing Hands for Haiti, Walkabout Foundation, and Johanniter. This made it possible to distribute 20 prototypes of the wheelchairs throughout Haiti for subsequent improvement. Since the first testing phase, the country now has "the all-terrain bull". The Haitian Secretary of State for the Rights for People with Disabilities, who manages the National Warehouse of Adapted Material, has been disseminating information about the product, so that other institutions or NGOs can order the chairs, according to the needs of their patients.

This wheelchair is a symbol of the kind of things we can do at the IDB. When we listen to Fanny's voice, instead of assuming we know what she needs, we can find solutions to the problems that really affect our target beneficiaries. Today´s world, is full of technologies that can make life-altering changes for people. The trick is connecting these technologies with the people who need them.

ON EMPLOYMENT SECURITY

BOLIVIA AND CHILE: BUSINESS INCLUSION FOR THE AYMARA WOMAN

The Aymara are an indigenous nation, located in the Andes and Altiplano regions of Bolivia, Peru, and Chile. Through the I-Lab, Centro INGENIA-T of Chile, a private institution that supports and defines innovation projects, business, and social entrepreneurship in the Andean region, received funding for a proposal to develop a fair trade e-commerce platform. This business inclusion initiative, known as Kurmi, aims to market handcrafts made by indigenous Aymara women who are disabled. Kurmi is an Aymara word, meaning rainbow.

Those Aymara women who are disabled are a group that face the difficulties of being a triple minority, due to their gender, their ethnicity, as well as their disability. Although Aymara women have competitive advantages in terms of their culture (e.g., raw materials and knowledge of the local environment), they lack access to adequate employment opportunities and the necessary instruments to stimulate local development and productive capacity.

Kurmi is a business initiative that aims to support the product development chain and marketing of handicrafts with local identity in the north of Chile and the city of La Paz in Bolivia. As a technological tool this trading platform aims to bring greater market accessibility to disabled indigenous women, encouraging the production of textiles with international standards and the promotion of micro-entrepreneurship in the Andean highlands.

To strengthen the potential of Aymara women, the project organizes a series of workshops on subjects, such as the production of Andean fabrics with looms, female entrepreneurship, business model generation, business administration, and marketing of handicrafts with local identity.

Frida Quispe Carpio said "The IDB project gave me the opportunity to learn the things I need to market my culture, to have a source of income and educate myself to start my economic activities. I can improve my quality of life and that of my family."

The project includes the commercial structuring for the development of prototyping, design, packaging, marketing, and commercialization of products, which will be offered through the Kurmi webpage. The Aymara culture is an indispensable and key component in the business inclusion initiative.

The initiative has received a number of honors, including the Seed Capital Program contest, sponsored by Servicio de Cooperación Técnica (SERCOTEC), a Chilean government institution that is responsible for supporting initiatives that strengthen the competitiveness of micro and small enterprises. In addition, INGENIA-T received recognition from the autonomous government of La Paz for its support of disabled young people and women in Bolivia.

The project's immense success, nonetheless, leaves room for growth and scalability. In this region, many disabled women still exist without employment. The future of this project will focus on strengthening initiatives to integrate a larger number of women's associations and facilitate their incorporation into the value chain of the production of handicrafts with a local identity.

CHILE: JOB SEARCH ON THE GO

In the LAC region, many unemployed and underemployed people lack access to adequate information on job opportunities. The jobs they seek may be available, but without real-time information, these opportunities are lost. The most affected are, typically, the very poor and those who live in remote areas. When opportunities are not published on the internet or if people do not have access to them, the only option that remains is to contact job agencies for information, by which time the job most likely is no longer available.

In 2010, Chile had only an estimated 30 percent of job vacancies posted on the internet, published by public employment agencies, while the Ministry of Labor's National Employment Bureau offered job vacancies by e-mail. The Internet and e-mails, however, still do not represent a viable solution for poor people, as access to the internet and lack of relevant skills are limited.

45

From the perspective of job supply, it is estimated[2] that the public employment system spends between US$400 and US$1,000 to recruit a person, resulting in a job placement rate of 55 percent of supply – a very low rate in comparison with the regional average. The challenge, therefore, is the lack of timely access to relevant information, as well as the overall absence of appropriate channels for information.

What is the yet untapped resource? Mobile phones! Mobile phones can provide immediate access to information. And in 2010, 90 percent of the people searching for jobs in Chile already had a mobile phone.

A team of entrepreneurs from Temuco in the La Araucanía region of southern Chile, who worked for Gentexpresa, a private firm, received support from I-Lab to develop an online platform with a marketplace interface to facilitate the job search (www.trabajomóvil.cl). This platform connects employers and job seekers in real time, cutting out the intermediary and providing the ease of communicating directly with each other. Individual employers, the Municipal Offices of Labor Intermediaries (Oficinas Municipales de Intermediación Laboral (OMILs)), private intermediaries and companies post their job vacancies on this website, those seeking jobs register, and the seekers are alerted by SMS text messaging when jobs are available relevant to their qualifications.

[2]http://www.emol.com/noticias/economia/2012/05/04/538952/trabajo-movil-una-nueva-modalidad-que-ayuda-a-buscar-empleo-via-sms.html

This website has been operating since February 2012 in La Araucanía. While the use of technology was not the most important innovation to this solution, it was the business model that was. It exploited the advantages of the Internet and mobile phones to compete with the traditional approaches of the job search; that is, through the media and in person.

This group of innovators is working to achieve traction for the project on both the supply side (job vacancies) and the demand side (job seekers). The team has carried out promotional campaigns, involving more than 5,000 users (who have already received job offers via text messaging) and more than 20 registered companies offering employment.

This project has several benefits. Through the extensive knowledge acquired during the innovation process, the entrepreneurs are able to develop and market mobile solutions for the health sector (appointment reminders) and for access to social housing (information on subsidies). In addition, they are working to introduce TrabajoMóvil ("Mobile Employment") in Peru. The team is preparing a national launch for the latter, which is essential in achieving critical mass in terms of employment vacancies and matching candidates.

See the video on the experience of Trabajomóvil on http://www.youtube.com/watch?v=ein_Q5pvq4c&feature=share&list=UUBFOsxlK-rGZTmH-2ZNHCVA

ON GOOD HEALTH

NICARAGUA: FEEL FREE TO BREAK IT!

"Don't break your toy car!" said Marcelo's mom to her son. "I'm not breaking it, Mom. I'm fixing it! And it's not a car, it's a fire truck that puts out fires." Marcelo answered, while he focused on making a hole in the roof of the toy car with a small screwdriver. Marcelo urgently needed a small truck for his imaginary firemen and he had to pierce the roof of the toy car so as to hook a small wooden ladder to it. Without the ladder, the imaginary firemen would not be able to put out fires. "Marcelo, if you break that car you won't get a new one," his mom repeated in a serious tone.

So many times we have faced the risk of punishment for breaking something! This is an example of the dynamics that we are accustomed to from a young age. At school or in other contexts, breaking things is bad. But the example of Marcelo represents a process of creative destruction: Marcelo adapts the things he has in order to solve a problem or a limitation he is faced with. And by not shying away from breaking and rethinking his toy car, Marcelo creates an innovative solution.

"Ninety-five percent of the medical equipment found in public hospitals in developing countries is imported from the developed world, most of which is quickly rendered useless, due to a lack of spare parts and personnel trained to repair the devices."[2]

In response to this, José Gómez-Márquez, a native of Honduras and Director of Little Devices at MIT, together with a team of innovators, developed "MEDIKits" in the towns of Ocotal and Jinotepe in Nicaragua. MEDIKits are based on the following mechanism: innovate by adapting

[2]http://www.designother90.org/solution/medikits/

(and sometimes breaking, and rebuilding) simple material to solve social challenges in marginalized areas. MEDIKits are toolkits equipped with basic modular instruments, which, through different combinations, allow healthcare workers to carry out activities, such as diagnostics and lab analyses in rural areas and remote communities.

More importantly, the MIT team worked with the local beneficiaries of the project to train them to adapt the tools themselves. Participants were invited to break containers or cut hoses from unused supplies, for example, as a means to lessen their fear of damage. They then were shown how to adapt or modify equipment with the pieces, in the absence of proper repair facilities. What resulted is a group of health professionals, who have learned to resolve the problems they face on a daily basis, when working with patients—by using tools that have been improvised from other material or products.

"I had to ask for the hospital director's permission to get the ultrasound equipment that had not been used in months. It was covered in dust,

sitting in the hospital warehouse. We wanted to see how it could be fixed [...] but it is difficult to do things like this because we live in a cultural context where we are punished for touching things or fined if something is missing from the inventory, even if what we took was broken and useless," stated one of the participants of the course.

"This is my otoscope" said Alfonso Moncada Guillén, a family doctor who had participated in the course. "I made it myself and it works with a phone charger [...] it is ugly, but works perfectly. If it breaks, I know how to fix it or build a new one."

MEDIKits demonstrates to users that even complex devices, including those for testing, can be made from affordable components and customized to meet their medical needs. "A disposable cartridge for inhalable vaccine could make it easier to inoculate children against measles. A plastic helicopter inspired a new approach to delivering asthma medicine to children.[3]

In addition to the workshops, the participants received MEDIKits cases with tools that can be used for diagnostics or lab exams in rural places where there is no electricity. This is key to the program, since people in remote areas often have to travel to the country's capital to receive medical care. While there may be times that they, ultimately, will not need care, because of absence of doctors in their areas, they go anyway. Similarly, they may require care but are not aware that they do, so they decide not to make the trip. With MEDIkits, diagnostics and lab exams can be performed in the most remote areas with nothing more than a few simple paper strips. This avoids unnecessary travels and ensures that people will have hospital care only when if their situation calls for it. MEDIKits is a prime example of a demand-driven innovation that is working with some of the poorest communities in Nicaragua to give everyone the same opportunity by providing the tools necessary for health challenges.
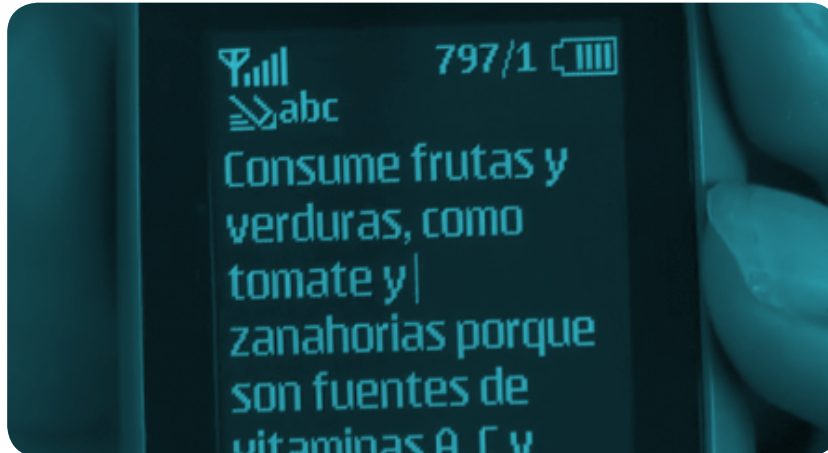
PERU: WAWARED: PROMOTING MATERNAL HEALTH THROUGH MOBILE PHONES

At least one woman dies every minute due to complications related to pregnancy or childbirth, totaling 287,000 women each year. For each who dies during childbirth, another 20 suffer from injury, infection, or disease, totaling 10 million a year.[4]

Peru had one of the highest maternal mortality rates in the LAC region in 2010. Today for every 100,000 births in Peru, approximately 67 will die.[5] Quality prenatal health care requires appropriate living conditions for the mother and her future child, especially in terms of accessibility, affordability, general health care, and health information.

[4]World Health Organization, 21 August 2013 (http://apps.who.int/rhl/pregnancy_childbirth/antenatal_care/en/).
[5]http://data.worldbank.org/indicator/SH.STA.MMRT

It is recommended that a woman needs at least four prenatal care visits during her pregnancy. In many developing countries, however, where medical coverage and quality of prenatal care is lacking, the majority of women do not receive prenatal care.

Lack of knowledge also contributes to inadequate prenatal monitoring and follow-up care, given that there is no efficient system for information dissemination. The most affected women are the poorest, the youngest, and those who live in remote areas, where access to information is scarce.

To tackle this challenge, the I-Lab teamed up with information technology (IT) professionals from the Peruvian university Cayetano Heredia (UPCH), who were led by Doctors Walter Curioso and Patricia Garcia. Their idea was to improve prenatal care usage and relevant knowledge by means of IT and communications, through the use of the Internet and a text messaging service (SMS) on mobile phones.

The UPCH team formed an alliance with the Ministry of Health in the Province of Callao, UNICEF, and Telefónica Movistar. The collaboration resulted in the creation of the WawaRed, a computer website developed

with web architecture, based on an electronic clinical records system that has the capability to send SMS, as well as an interactive voice response service (IVR). WawaRed has the aim of increasing access to healthcare for low-income, pregnant women in Peru by providing information relating to prenatal and childcare through SMS.

The innovations with regard to this system were twofold. First, it simplified the clinical records forms that pregnant women were required to complete and, second, the system is able to send information via SMS to women. The messages include a reminder of the prenatal care appointment, information about pregnancy care (hygiene, food, sexual health), as well as customized SMS for those women with disease. The IVR provides rapid responses to women´s queries and concerns, contributing to increased communications and knowledge learning.

Throughout the innovation process, the IDB team provided the necessary technical capacity to integrate the text messages into the WawaRed system, as well as contributed towards the impact evaluation design. The project evaluation was based on a random experiment, with pregnant women in treatment and control groups (600 women in each), so as to assess the change in women's behavior and measure the improvements relating to childbirth and infant health outcomes. The UPCH team stipulated a need to involve the target beneficiaries in the process from inception, and

ensured that health personnel were connected to the pregnant women. Since its inception, WawaRed has been established in 10 health centers in the district of Ventanilla, where a total of 8,000 women are registered.

There have been two extraordinary impacts, as a result of WawaRed. The first was the simplification of 14 forms into one single form, thus reducing the appointment duration from 45 to 20 minutes (saving more than 10,000 hours of medical personnel a year). While medical personnel spent time completing forms, they now have more time to attend to the women and the women and families spent less time waiting for prenatal care appointments. The second impact of this innovation is that the randomized experiment for assessing the system´s impact demonstrates that sending prenatal care appointment reminders through SMS has had a significant positive effect on pregnant women and, in turn, on their own health and that of their infant.

Currently, the WawaRed team is scaling up and expanding into other provinces in Peru. This technology transfer provides a unique solution to increasing prenatal and infant care in the rest of the country, as well as other countries in the LAC region.

Video: The WawaRed experience: http://youtu.be/xbbHj6Qo4T8
Storytelling: The WawaRed experience: http://vimeo.com/59589550

5 | OUR LESSONS

From the very start, the I-Lab has involved the target beneficiaries in its projects, which has largely contributed to the innovation and relevance of solutions to the issues presented[6]. We have incorporated a multidisciplinary focus to encourage fresh and out-of-the-box thinking. The I-Lab's approach is based on the use of crowdsourcing to identify the problems and to transform them into ideas that inspire high-impact innovation, which can be applicable to all sectors. The key lessons we have learned is the need to include the excluded communities in the innovation process, as well as to link governments, universities, NGOs, and the private sector to resolve the many challenges that face the excluded communities.

[6]This section is based on Guaipatin (2013), which discusses, in detail, the whys and hows in designing public-private partnership programs to promote social innovation.

Although many projects supported by the I-Lab have been for and with the disabled, our approach goes beyond this group. A disability results from the interaction between a person features and the environment where he or she lives. And that applies to anyone. Our success, happiness, and achievements result from the interaction between our own features and the environment we live in. We need to work with the beneficiaries, because they have specific knowledge (they know their features and the environment where they live), and we need to design solutions that can impact their lives. .

In Colombia, for example, the lack of access to, and contamination of, water greatly affected the quality of life in thousands of communities, exacerbating poverty conditions. In the state of La Guajira, for example, only 16.3 percent of the population has access to clean drinking water, whereas 83.7 percent are forced to consume contaminated water. In response to this problem, the Administrative Department of Science, Technology and Innovation (Departamento Administrativo de Ciencias, Tecnología e Innovación (COLCIENCIAS)) of Colombia has collaborated with the IDB and Colombia's National Agency for Overcoming Extreme Poverty (Agencia Nacional para la Superación de la Pobreza Extrema (ANSPE)) to work with these communities to identify the problems, with particular focus on the departments of La Guajira, Putumayo, and Risaralda. COLCIENCIAS has adopted I-Lab's approach to generating demand-driven innovation, and is working with various innovators and technical experts for solutions.

This publication describes some of the innovations that the I-Lab has supported. The target beneficiaries were involved in all steps of the way. If there is one element that we can highlight in this publication in relation to our projects, it is that all of them have included the input provided to us by the ultimate beneficiaries, as advocates of their own future.

As technology continues to advance, people are becoming more informed. Technology can provide to those, affected by inequality, the means to come together, be heard, and express their frustrations and challenges. This will bring pressures to bear on governments to encourage them to seek and provide effective solutions.

Social policy can no longer afford to disregard the active participation of the beneficiaries in the decision making. To involve the excluded communities in the development of solutions is, therefore, a must. In addition, public–private partnerships are essential to accomplish high-impact social innovation. Government cannot address social challenges on its own; it needs knowledge and private sector expertise that are beyond the public domain. Conversely, the private sector cannot tackle the challenges on its own, either.

The innovation process and the relevant research and development, carried out by private companies, have generated social benefits that exceed the benefits to the companies, themselves. Firms are unable to fully capture the benefits associated with innovation and, thus, governments should provide the incentives and subsidies for this development. Scaling up a social innovation requires two key ingredients: incentives/risk mitigation and patient capital.

Experience in other regions has demonstrated that by partnering with the private sector, both in terms of design and funding for scalability, government resources towards social impact can be maximized (Schwab Foundation for Social Entrepreneurship, 2013). High-impact social innovation can only be successfully when tackled jointly by both the public and private sectors.

The opportunities to tackle social problems through innovation are vast. Priorities, such as child malnutrition, improving school education, infant mortality, and others are driven by the government's social agenda. Once a specific issue has been identified, IDB's I-Lab can spark the social innovation process, and involve universities, NGOs, and the private and financial sectors.

In conclusion, to highlight the key lesson learned from the I-Lab experience, it is: To provide solutions with impact, we need to understand the key challenges and problems, which can only be identify through the knowledge, input, and involvement of target beneficiates. So, let´s put technology to work!

| REFERENCES

Carrillo, P. 2013. "Final Evaluation of the Fe y Alegria Project: ICT for Inclusion of Children with Disabilities." Washington, DC: Inter-American Development Bank. Unpublished.

Guaipatin, C. 2013. "How to Promote High-Impact Innovations through Social Innovation Funds: A Call for Public-Private Partnerships." Washington, DC: Inter-American Development Bank.

Schwab Foundation for Social Entrepreneurship. 2013. "Breaking the Binary: Policy Guide to Scaling Social Innovation." Geneva, Switzerland: Schwab Foundation for Social Entrepreneurship. Available at http://www.weforum.org/pdf/schwabfound/PolicyGuide_to_ScalingSocial%20Innovation.pdf.

| FURTHER READINGS ON SOCIAL INNOVATION

Cajaiba-Santana, G. "Social Innovation: Moving the Field Forward. A Conceptual Framework."
Technological Forecasting and Social Change (n.d.).

Georges, Gigi, and Stephen Goldsmith. "Leading Social Innovation." Innovations: *Technology, Governance, Globalization* 5, no. 2 (April 1, 2010): 13–21.
http://dx.doi.org/10.1162/inov_a_00008

McKinsey & Company. "Social Innovation | McKinsey on Society."
McKinsey on Society, n.d.
http://mckinseyonsociety.com/topics/social-innovation.

Mulgan, G., et al. "Social Innovation: What It Is, Why It Matters and How It Can Be Accelerated." Oxford Said Business School: Oxford, 2007.
http://youngfoundation.org/publications/social-innovation-what-it-is-why-it-matters-howit-can-be-accelerated/

Pol, E., and S Ville. "Social Innovation: Buzz Word or Enduring Term?"
The Journal of Socio-Economics 38, no. 6 (December 2009): 878–885.
http://www.sciencedirect.com/science/article/pii/S1053535709000249

Sloane, P. *A Guide to Open Innovation and Crowdsourcing : Practical Tips Advice and Examples from Leading Experts in the Field.* London: Kogan Page, 2011.

Stanford Center on Philanthropy and Civil Society. "Stanford Social Innovation Review." *Informing and Inspiring Leaders of Social Change*, 2013.
http://www.ssireview.org/

| LIST OF LINKS

1. The Innovation Lab – www.bidinnovacion.org

2. A World of Solutions Program – www.bidinnovacion.org/unmundo

3. DUTO S.A. – www.duto.org

4. Federacion Internacional Fé y Alegría – www.feyalegria.org

5. Canales Association – www.canales.org.ar

6. CEDETI (Centro de Desarrollo de Tecnologías de Inclusión) – www.cedeti.cl

7. Virtual video books in Argentinian Sign Language – www.videolibros.org.ar

8. Sueñaletras –www.cedeti.cl/software-educativo/suenaletras

9. F123 Group – http://f123.org/en/project-f123org

10. Global Research Innovation and Technology (GRIT) – http://gogrit.org/lfc.html

11. D-Lab of the MIT – http://d-lab.mit.edu

12. Mobile Citizen Program – www.mobilecitizen.bidinnovacion.org/en http://trabajomovil.cl/

13. WaWaRed – http://wawared.org/

14. Inclusion in Firms Program – http://www.bidinnovacion.org/inclusion-en-empresas/en

15. Ingenia-T – http://www.ingenia-t.cl/

16. Gentexpresa Organization – http://www.gentexpresa.cl/

| ACKNOWLEDGEMENTS

We would also like to acknowledge all the participants who called us and communicated their problems and ideas for solutions – this is what brought I-Lab to life. Most importantly, we would like to mention all of the other projects that were borne out of the crowdsourcing initiatives, which have taken place from 2008 to 2013, which have provided an insight into social innovation. They are:

- GyT (Guatemala)

- D-Miro (Ecuador)

- BAC (Costa Rica)

- Project ANSIMUE (Argentina) – Accessible Navigation System for people with Disabilities.

- Accessible call centers (Colombia) – Call centers, operated, 100 percent, by people with disabilities.

- Videogames For All (Costa Rica) – Fair Play Labs for blind children and children with low vision.

- Señas en línea (Nicaragua) – Educational support for deaf children.

- Gentexpresa (Chile) – Mobile-based job search platform in the city of Temuco and other regional capitals of Southern Chile to complete the efforts for the dissemination of job opportunities among the most excluded sectors.

• Surveillance of Chagas' Disease and Dengue (Argentina and Bolivia) – Mobile-based technological solution for the epidemiological surveillance these diseases.

• WawaRed (Peru) – Getting connected for improved maternal and child health. Allowing pregnant women to have higher levels of accessibility to the health system, and also enabling health centers to improve patient monitoring through mobile technology solutions.

• Digital vaccination register (Mexico) – Based on mobile technology, allowing for wider vaccination coverage, as well as more effective epidemiological monitoring, thus enabling immediate response.

• MEDIKits (Nicaragua) – Easily deployable biomedical training kits to allow state-of-the-art biomedical techniques to reach the poor in Nicaragua. The kits employ a variety of innovative products, such as low-cost diagnostic tools ("Lab on a chip") and mobile health informatics.

• Low-cost wireless technology (Ecuador) – Long-distance wireless transmitter developed by the iXem Labs of the university, reduces isolation of schools and health centers, as well as improves the public services and the technology infrastructure of the area.

• Child nutrition with peanut butter medicine (Haiti) – MFK calls Medika Mamba "the ultimate take out food", as it needs no cooking (therefore, no fuel) and no refrigeration. The product is a highly cost-effective way of treating malnutrition.

• Internet sales for artisans (El Salvador and Honduras) – Allows small-scale artisans and other producers to increase their markets through technology by replicating the business model that made www.boliviamall.com a success

| ABOUT THE IDB AND THE COMPETITIVENESS AND INNOVATION DIVISION

The IDB is the leading source of multilateral financing for Latin America and the Caribbean. The IDB's Competitiveness and Innovation Division promotes the creation and growth of dynamic enterprises, strengthening their capabilities and tools to innovate and compete in world markets.

In the IDB's view, innovation is crucial for increasing productivity and fostering inclusive growth in Latin America and the Caribbean. The Bank has established its Innovation Lab as a platform to share ideas, identify problems, and find creative solutions to development problems. Through the I-LAB network, problems can lead to the creation of high-impact innovations.

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