



# Opening Doors with ICT

# Abriendo Puertas con ICT

**Report of the CoSN Delegation  
to South America**

November 2011



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## **Opening Doors with ICT Abriendo Puertas con ICT**

### **I. CONTEXT**

CoSN is committed to a global dialogue focused on the strategic uses of technology for the improvement of teaching and learning in elementary and secondary schools. As part of this ongoing commitment, CoSN led a Senior Delegation to Uruguay and Argentina in November 2011. Building upon the experiences of previous delegations to Western Europe (2002), Australia (2004), Scandinavia (2007), Scotland and Netherlands (2009) and London and Paris (2012), CoSN structured the agenda to include meetings with policymakers, briefings with educators and visits to schools.

Our goals were to provide the members of the delegation with an opportunity to:

- Learn how strategic investments in ICT by Uruguay and Argentina are preparing students for success in the 21st century global economy.
- Identify innovative uses of technology, particularly one-to-one efforts across South American countries and witness first hand their application in school settings.
- Discover common challenges in using ICT to transform learning.
- Determine if these South American ICT policies and practices could be replicated in the U.S.

With these goals in mind, the delegation waited with anticipation and excitement for our plane to land in Montevideo on a sunny and bright spring day in November. We came from diverse backgrounds and communities – but we all shared the same interest in discovering how ICT use in Uruguay and Argentina was being deployed in the school system, and understanding more about what the U.S. could learn from our neighbors to the South. Before leaving on the delegation, we prepared by reading a number of relevant papers, searched the Internet for references and participated in a webinar to provide the context for our experiences. Many of us brought to the delegation recognition of the social stratification and the wide gap between classes.



## Report of the CoSN Delegation to **South America** November 2011

What occurred over the next week was truly transformational and inspirational. Yes, we achieved our goal of seeing innovative use of ICT in education but we came away with far more than anticipated. After long days of meetings with policymakers and educators and visits to schools – and the opportunity to capture our immediate impressions on our [blog and with videos](#), the delegation reached three overarching conclusions:

- There is a **bold vision** for integrating ICT in the education system and a national commitment to make this happen in both Uruguay and Argentina. From a U.S. perspective this type of national vision and commitment are lacking in our own country.
- ICT is viewed as a **policy of social inclusion and equity**, rather than an education technology program.
- The infrastructure and hardware components of the one-to-one programs are **part of a much larger transformation** taking place and positioning the next generation of learning systems.

We invite you to join our journey – and learn from our experiences. We do not pretend to be experts on ICT in Uruguay and Argentina. What follows is based on our personal encounters and reflections during an incredible week. We also hope to convey our admiration for what these two countries are doing to advance the education of students and to change the perspective about what is possible when we extend learning beyond the school house into the home and community. As U.S. educators, we can learn a great deal from what is taking place in Uruguay and Argentina.



## II. A BOLD VISION FOR SOCIAL REFORM AND HIGH-QUALITY EDUCATION: POLICY AND VISION

Plan Ceibal in Uruguay and, Plan S@rmiento (City of Buenos Aires) and Conectar Igualdad (national Argentinean program) are the ICT building blocks of educational transformation. These programs are ambitious in scope, bold in vision and truly impressive. In both countries the national and local governments provide laptops to students and teachers and establish and support the connectivity network. By integrating equipment and connectivity, providing content and training, and allowing students to take their laptops home, learning is extended beyond the school walls into the home and the community.

As the delegation learned more about these programs from government officials and educators and saw them in action, we wondered how Uruguay and Argentina, two relatively poor countries, were able to launch such expansive efforts, when the U.S. seems unable to do so. Our answer came down to a single key element: the political will to articulate bold visions coupled with the leadership required to implement policies and programs tied to these visions.



# Plan Ceibal

### **Education facts: Uruguay**

- 2,300 primary schools nationwide
- 350,000 students
- 18,000 teachers

### **Education facts: Argentina**

- 45,000 schools nationwide
- 11 million students
- 24 Provincial Ministries of Education, including the City of Buenos Aires responsible for elementary education; Argentina National Ministry of Education responsible for secondary education.

### **Uruguay – The Courage to Just Do It**

Today Uruguay with its Plan Ceibal is a worldwide reference point with regard to the inclusion of ICT in primary education. The dimensions of Plan Ceibal are broad and encompass every primary school student in every classroom in every school (and, just as important, in every home).

Over the last decade, Uruguay's embrace of Information and Communication Technology (ICT) has been explosive compared to many other countries worldwide. The reason? A bold and innovative approach by Uruguay's national government and its former President, Dr. Tabare Vazquez, to provide its 2,300 schools in regular and special primary education, its 350,000 students and its 18,000 teachers with free laptops and wireless connections.

The inspiration for the project came from American visionary, Nicholas Negroponte, best known as the founder and Chairman Emeritus of [Massachusetts Institute of Technology's Media Lab](#), and the founder of the [One Laptop per Child](#) Initiative (OLPC) working to distribute technology, to promote knowledge and to generate social equity. Designed and built for children in developing countries, the XO laptop computer, <http://laptop.org/en/laptop/>, is about the size of a text book (but lighter), relatively inexpensive, and able to connect children to curricula and the Internet in some of the most remote environments on earth. Uruguay became the first country in the world to systematically distribute one XO to every student in its state primary schools, grades 1-6.

## Report of the CoSN Delegation to **South America** November 2011

In 2002, Uruguay went through the steepest economic and financial crisis in its recent history with unemployment rising to almost 20% and the loss of an estimated half million Uruguayans who left the country for economic reasons. Against this economic backdrop, President Vazquez took the bold initiative in 2006 of the OLPC Initiative and made it a cornerstone of his policies. The resulting program launched in 2008 was

school by leveraging the many wireless access points throughout local communities. During a walk through one of the poorest neighborhoods in Montevideo, we were greeted by three young children happily working on their XO computers. In rural areas without electricity, connectivity is provided by portable solar charging units. These little XO units bring teaching and learning into the home as the students are given ownership

### **Plan Ceibal Facts:**

*450,000 laptops for students in grades 1-9*

*2,450 schools*

*26,000 teachers*

*Hotspots in 130 public places and 150 neighborhoods throughout the country.*

connectivity contracts, professional development, portal development and digital content development. This level of autonomy eliminates the state and federal bureaucracy that would normally stall and debilitate a countrywide educational network.

Plan Ceibal has widespread political and social support from the President of the country to ordinary citizens who express pride in living in a country with such an innovative program that gives students opportunities for 21st century learning. The national government has made a long-term funding commitment to the program coupled with a determination to sustain the initiative with needed funding. The total cost of Plan Ceibal is \$400 over four years per child, or \$8 per month per child. Plan Ceibal budget represents 5% of the country's total education budget and less than 0.15% of the Gross Domestic Product (GDP).

*I was impressed with three aspects of Uruguay's implementation:*

- 1. The courage to "just do it" across the entire country,*
- 2. Autonomous control of the project by a governance structures called Plan Ceibal, and*
- 3. The new learning opportunities that have been afforded every students as a result of ubiquitous access.*

*The determination over the last five years to sustain the initiative with needed funding and the development of a completely digital curriculum is truly impressive.*

Bailey Mitchell, Chief Technology and Information Officer, Forsyth County Public Schools, GA

named Plan CEIBAL, an acronym in Spanish, *Conectividad Educativa de Informática Básica para el Aprendizaje en Línea*, meaning Educational Connectivity in Basic Computing for Online Learning, and reflecting the name of the national tree of Uruguay, the Ceibal or Ceibo tree (*Erythrina crista-galli*).

A unique approach to this policy is that it is country-wide making it possible to extend in-school networks to specific, external locations. The initiative extends the reach of learning to low-income neighborhoods, parks and community centers that surround each

of the laptops to keep and use at home. Centralized, top-down control of the Plan Ceibal network and its use is absent. Plan Ceibal (an independently administered agency created from cooperation of approximately 16 agencies including the Ministry of Education) hands over the decision making to educators who actively engage their school community in the process of teaching and learning. However, the organization manages equipment and

*Listen to Miguel Brechner, President of Plan Ceibal, share his thoughts on the accomplishments of and challenges faced by the initiative*

<http://cosnintltrips.files.wordpress.com/2011/11/miguel-brechner.m4v>

## Argentina

Argentina is also implementing many one-to-one ICT programs. We found out that public officials in Argentina consulted with their Uruguayan counterparts in order to learn not only best practices but also to create alternative strategies and plans suited to their specific needs. As in Uruguay, a bold vision for social change includes a focus on school improvement through ICT.

Because it is a much larger country than Uruguay with a greater economic and social diversity, Argentina has more than one laptop initiative. The national Conectar Igualdad is deployed in secondary schools nationwide, and Plan S@rmiento, operating in the City of Buenos Aires, is named after President Sarmiento, the father of Argentine education.

Buenos Aires, the largest city in Argentina, has its own Ministry of Education. In 2010, the Ministry of Education in Buenos Aires launched a large-scale digital literacy initiative, Plan S@rmiento, which will ultimately outfit every elementary student with a rugged, full-featured netbook, typically a Classmate-type device. Buenos Aires is the first administration in the country to provide all public elementary school students with one-to-one computer access,

### **Plan S@rmiento – City of Buenos Aires**

*Laptops with wireless connection for all elementary and secondary (1st grade to 9th grade) school students in public and private schools*

*160,000 public elementary students have netbooks*

*592 schools*

*16,000 teachers have notebooks*

*250 radio transmitters for network connectivity*

*Integrar - Web Portal with educational resources*

### **Conectar Igualdad: National Program for students and teachers from 7th – 12th grade**

*1.8 million computers deployed in secondary public schools, special education and teacher training institutes*

*Online training for teachers*

*Educ.AR Web Portal with educational resources*

*Innovation Schools*

*On-site teacher training under the Conectar Igualdad program*

*Teacher's professional development for the implementation of the one-to-one model*

*3,000 teachers*

*28, 000 students*

not an easy feat when there are 592 public schools, 160,000 public elementary students and 16,000 teachers. These light devices connect students to school networks and are usable 24/7.

Because network infrastructure is limited (1-4MB per school), the city installed servers at each school to make sure content delivery remains fast and reliable on premise.



*Listen how Plan S@rmiento came about*

<http://cosnintltrips.files.wordpress.com/2011/11/ba-day-1.m4v>

## Report of the CoSN Delegation to **South America** November 2011

About a year and a half ago, the current governor of Buenos Aires brought in Esteban Bullrich, former member of the National Congress, as the new Minister of Education to change education in the city and improve teacher quality. We were privileged to meet with Minister Bullrich and to hear his vision for education. His leadership has resulted in some impressive changes. When he became minister, 10-15% of the schools had Internet connections while 100% have it today. Changes of this magnitude in a short time can be overwhelming and have created tensions with the teachers unions leading to frequent strikes.



*For me personally, I was amazed at the political will these countries had to make such bold moves as to provide a laptop to every student in the country. The leadership had come from the top and the message had been communicated so clearly that the teachers, parents and students were all saying the same thing. In Uruguay, the leaders of this program had taken a bold move to create their program outside of the bureaucracy of the federal government to get it implemented. In Argentina, Esteban Bullrich, the Minister of Education in Buenos Aires has given his cell phone number to every teacher in the state and had told them to call him personally if they experienced any problems. We saw this type of courageous leadership everywhere. I look to our own country and wonder if we could ever get the two parties to come together and make something like this happen for our children.*

Alice Owens, Executive Director of Technology, Irving ISD, TX

The city has a real challenge with low teacher pay (average \$1,200 per month), retention, hiring, multiple teacher unions and often hostility to teachers by parents. Minister Bullrich is working to improve these conditions and raise expectations for technology literacy among teachers and staff. Teachers' salaries have been increased and, for the first time, teacher evaluations are being conducted. In order to restructure the classrooms and make the needed changes, the local government, rather than the teachers, will be making selection and hiring decisions. In a bold move designed to build trust and confidence in his leadership, Minister Bullrich offered his personal cell phone to every teacher so that they could communicate concerns directly.

But, here again with all its flaws, the city government's strong leadership is committed to providing technology for every elementary school student, while helping reform the teaching profession on a scale greater than ever before. In a city where the slums are widespread and the economic divide palpable, the government continues to work to ensure that all students have the same chances for success.



## Report of the CoSN Delegation to **South America** November 2011

In February 2010 the Argentina Ministry of Education instituted a country-wide program for secondary students, Conectar Igualdad. Operating throughout Argentina, Conectar Igualdad is now **the largest laptop program in the world designed for high school students**. Secondary students were targeted because of their high dropout rate. In one year the 250,000 netbook pilot project scaled up to 1.8 million netbook computers for secondary students throughout the country. The ultimate goal is to provide one laptop per secondary student in the public school system – three million computers – by 2012. There is not a single device being used, but rather 10 different ones, each costing about \$200 with an additional \$70 for software. The combination of Plan S@rmiento and Conectar Igualdad will provide all elementary and secondary students in Buenos Aires with a computer and 24/7 access.

A group of invested government ministries (Infrastructure, Education, Research and others) made the project possible and continue to support its operation. Network and Internet infrastructure throughout the 24 provinces in Argentina is not equal and servers are provided and refreshed in the regions to equalize access to the Internet. School-based learning networks are organized around a central portal – Programa Conectar Igualdad <http://www.conectar-igualdad.gob.ar/> – which houses an extensive library of instructional content integral to the laptop program for students, teachers and parents. The goal is to provide high quality resources, including primary source materials, which cover all academic content areas and are differentiated to address multiple learning styles.

*In the past several days, we learned from the thought leaders and implementers of these programs that the key to success and sustainability requires a new way of leading, thinking, seeing, acting and believing. The new paradigm is a shift away from broadcasting toward sharing, collaborating, creating and valuing. Uruguay and Argentina are busy implementing the vision – no pilots, no notices of proposed rule-making, no protracted public debate, no partisanship.*

Cynthia Schultz, Of Counsel,  
Patton Boggs, LLP





### III. SOCIAL INCLUSION AND EQUITY

It is striking that the one-to-one laptop programs in Uruguay and Argentina are not primarily viewed as education programs but rather as national programs to address issues of social inclusion and to provide equal opportunity to all students. As a result of these programs, many families – not just students – have access to computers in their homes for the first time and digital community is being created throughout the country.

*It's not a laptop program...it's more a program of social inclusion – rights for everybody to be in a better position to work in a new world.*

Miguel Brechner, President, Plan Ceibal, Uruguay

The ICT programs that we learned about in Latin America are focused on the big picture, the really big picture: poverty. Income inequality is persistently and relatively high in almost all Latin American countries. Government and education leaders with whom we spoke understand that technology is integral to closing wage gaps and ensuring full participation of the population in the 21st century.

To move out of poverty, digital literacy, not just basic literacy, is essential. And a digitally literate society is essential if a country wants to experience economic growth and be competitive in the global marketplace. Integrating technology into schools and homes via various laptop programs is a means to address the divide, provide an opportunity to connect people to the outside world (especially in remote communities), and to ultimately transform society.

Plan Ceibal and Plan S@miento were engineered from the beginning to minimize inequality gaps and improve education for all students. The leadership in Uruguay and Argentina has embraced broadband connectivity and the laptop is simply the tool used to equalize opportunity and foster social inclusion for every citizen. These national policies are using education to bring digital tools to the children, who in turn, are teaching each other, teachers and their parents.

According to UNESCO, 20 of the 24 Latin American countries are working on similar one-to-one laptop programs. The education leaders of these countries know each other and talk to each other to leverage experiences and develop best practices.

*I am astounded by the work of bringing "equity" to every student in the two nations we visited. Title I of the Elementary and Secondary Education Act was implemented in 1963 by President Lyndon Johnson. His vision was the Title I would ... bring equitable educational services to children living in poverty. The use of technology in classrooms wasn't in the picture at that time. Two nations, Uruguay and Argentina, are working to achieve, what I believe was President Johnson's dream for Title I – to bring educational equity to all students.*

Gayle Pauley, Director, Title I/ Learning Assistance Program and Consolidated Program Review, State Directors Association

The underlying premise and assumption is that by giving laptops directly to the children, these programs build self-esteem and pride for the entire family. Computers level the playing field and in many cases, the underprivileged with dedicated laptops and free Internet actually have better access to technology than their wealthier counterparts. By requiring students to graduate to keep their laptops, the dropout rates for poor students are expected to decrease.

*Listen to Laura Motta describe the impact of Plan Ceibal*

<http://cosnintltrips.files.wordpress.com/2011/11/laura-plan-ceibal.m4v>

## Report of the CoSN Delegation to **South America** November 2011

Extraordinary planning and effort are being made to include students in rural areas. By setting up solar panels for charging laptops, students are able to participate in the program even though they live in areas without electricity in homes or schools. By way of contrast, similar programs do exist in the U.S., but only as limited pilots funded by the government and private sector.

In South America, where the laptop and connectivity programs appear to be meeting their objectives, under-privileged students are both the immediate beneficiaries of the programs as well as conduits for local outreach. It was not uncommon for us to see students in the market or other places with laptops. Children and their parents share the experience and learning at home. For example, there are training programs for parents on nutrition and food preparation, and students are encouraged to teach their parents how to use the computers. Students speak of how they work with their parents to share ICT skills and information. Family support and involvement in education at school, at home and in the community are evident and positive. Plan Ceibal has raised the self-esteem of students and has provided parents with access to a computer and the Internet in their homes.

*I am left profoundly impressed with what Uruguay has been able to do by setting a lofty goal and working together to meet it in spite of issues. As we left Montevideo on our way to Colonia to catch the ferry, we drove past shanty towns on the edge of the city with houses created out of scraps of corrugated metal, old tiles and any building material they could pull together. As we passed them, I thought of the opportunities Plan Ceibal is providing the children and parents who live in those homes. Before this initiative they would never have access and would have been left out again of a moving and rising society because they don't have electricity.*

Holly Jobe, President, International Society for Technology in Education

One example of how computers are used outside the classroom is the RFID reader on laptops in Uruguay. Uruguay is a country known for its beef and beef production, and all cattle have RFID tags on their ears. (These tags link to a database with animal-specific age and health information, allowing for beef exports into countries with tight restrictions.) The RFID readers allow families to use children's laptops to inventory their cattle.

The conscious inclusion of the community at large is also likely to be the key to the continuity of any of these programs. As spoken quite directly by Oscar Becerra (former Ed Tech Director for Peru), "Every new government throws out what's been done before." And unfortunately for Peru, it appears they will not, due to a change in political leadership, fund ICT programs in the same way they have done in the past. This means that ICT programs that include parents and the town in their activities and engage with

neighborhoods, will by virtue of their success and popularity, be more likely to weather the storm of political changes.

When we inquired about funding for the one-to-one program in Argentina, we were told that laptops were purchased from Social Security funds because the Argentine people believe there is no future for the country if its children aren't educated. This sense of unity is sorely needed throughout the world to avoid class and generational competition for decreasing government funds.

After seeing what countries with a fraction of the wealth and resources of the United States could achieve in education, we were left with a feeling of hope and possibility of what we could accomplish back home. As the U.S. looks south for ideas and inspiration on how to implement ICT programs within our own country, we cannot separate the effort from equity and social inclusion. If we fail to understand and address the big picture – the one of poverty – we will fail our children and our society.

*Listen to Oscar Becerra talk about the program in Peru*

<http://cosnintltrips.files.wordpress.com/2011/11/oscar-becerra.m4v>

## IV. PART 3: NEXT GENERATION LEARNING SYSTEMS

In both Uruguay and Argentina we were impressed by the fact that the ICT programs included not only the hardware and infrastructure but also moved beyond that to embrace a whole new learning system and a new vision for professional development.

We observed four areas of activity that captivated our interest and show promise for application here in the U.S.

### **Digital Fluency & the Ability to Analyze, Create, Affiliate**

Even in schools with one-to-one initiatives, the focus remains squarely on instruction and the progress of deep learning. Technology runs ubiquitously in the background ready to assist with inquiry, collaboration and creation – but educators are trained to see beyond the device and, instead, draw their motivation from its potential to enrich learning. Educators are wary of replicating a traditional learning assignment in a digital way. We saw firsthand the dedicated hard work of coaches in instructional technology encouraging teachers to think differently about their practice, often modeling activities for the class that put higher order thinking skills into play.

Plan S@rmiento is viewed as a master plan for digital literacy, rather than a computer-based program. As a pedagogical learning program it embraces key

policy issues such as encouraging new approaches to the student –teacher relationship, speaking the language of new media, exploring ways of understanding and representing reality, learning and playing in digital environment, and working cooperatively. The Conectar Igualdad program is working with EducAR, an independent agency, to create learning objects to use on the netbooks and that will work off line because there is not enough bandwidth in most schools in the country for a class of students to be all on the network at once. In developing the learning objects, they are making short modular segments that are articulate, use multimedia, appeal to diverse learners, are digital and can be adapted to local needs and to local high schools

There are also portals for students, teachers and those with special needs. The students' desktop includes games, videos, programs, activities, courses and digital

books while the teachers' desktop includes a library, courses, videos, software and programs, activities, grade books, scope and sequences and suggested lesson plans. The desktop for students with special needs includes adaptive technology resources, and the family desktop has recommended Internet sites, a glossary, responsible use guidelines and information on how to use the Internet. A section of digital how-to resources including an online library, videos related to subjects, an image gallery, animated infographics and a hypermedia resource collection. With over 400 videos that have been created in house, teachers and students are encouraged to develop content through contests that can be uploaded.



1st grade class students designing an animal

### **Observation from the field**

*National pride and a passion for social inclusion in Uruguay shines through the conversations we had with the principal and the part-time instructional technology specialists. Plan Ceibal has unleashed a limitless potential within traditional classrooms that energizes teachers to bring their young charges up as computer literate, globally aware and socially connected learners. Teachers work with the open source programs on the XO unit in ways that encourage creativity, collaboration, critical thinking and communication. And we found the digital curricula impressive in its attention to learning standards and diversity. Ubiquitous access is the game changer here – scholarship integrates naturally with young identities.*

*Listen to Keith Krueger talk about how Plan S@rmiento teachers create innovative lessons by utilizing technology in the classroom*

<http://cosnintltrips.files.wordpress.com/2011/11/keith.m4v>

### **Create First, Consume Later**

The teachers we encountered in Uruguay and in Argentina were enthusiastic about project-based learning. Common to both systems are learning activities that highlight the creation of original digital content, not just consumption. They want students to solve problems, and demonstrate what they know and can do as authors and information producers. In this way, these teachers believe that effective instruction enriched by technology can transform the learning environment



*7th grade computer science class. Students are programming a stoplight to manage the flow of cars, as well as pedestrians. This example of constructivist activity was engaging and pushed students to think using pictures and videos*

### **More Time to Learn**

Both countries have grappled with the issue of short school days (shorter than in the U.S.) and not enough time to cover all the curricula. However, the one-to-one ratio of students to computers and open, 24-hour access to online instructional content goes some distance to mitigate this problem. And they encourage learning well beyond the classroom.

In Buenos Aires every school has a support person dedicated to educational technology. These staffers work closely with teachers on tech integration and the development of instructional content for the “Conectar Igualdad” portal. We discovered a second dimension to the laptop-and-portal program – because the device is issued to each student as a quasi-owner, teachers will often frame the initiative as a social justice project for the city. Over and over again, we heard that these netbooks have gone a long way to raise awareness and move fresh ideas into the home, primarily among families for whom this is a first experience with technology and the Internet.

### **Logos Redefined for the 21st Century**

Educators in both countries place instructional weight on the importance on teaching how logic models work, and design learning activities to promote innovative computational thinking. Both countries saw these initiatives as economic development programs for their countries. Uruguay proudly claims to be the largest exporter of software in South America, partly due to the emphasis placed on technology in learning.

When visiting an elementary school in Buenos Aires, we noted participation in Plan S@rmiento where teachers are given the flexibility to develop their own learning environments. Conversely, the pressure we see in the U.S. to spend an enormous amount of time on test preparation is not present. Creativity appeared to be held as a high-value attribute in these classrooms.

*The curriculum paradigm has shifted. Buenos Aires is empowering teachers, students and parents in ways never before possible. Collaboration is what they are striving for. And high level thinking is the goal. They are thinking of content very differently as teachers and students build content... a very different way of thinking. Viva Argentina!!*

Sheryl Abshire, Chief  
Technology Officer,  
Calcasieu Parish School System,  
Lake Charles, LA

## V. REFLECTIONS

Tom Friedman & Michael Mandelbaum's new book, *That Used to be Us*, reminds us that while the United States has historically been the world's laboratory for big ideas, today we as a country seem all too often stymied and lacking in bold vision. After visiting Argentina and Uruguay, as well as learning about other efforts across South America, the theme of that book really hit home to our delegation.

Plan Ceibal is a big bet by a relatively poor country that giving a computer to every child can provide social equity across the country. It is based on a big idea. You might say, how can they really afford the cost, especially when one-to-one efforts in the U.S. and other developed countries schools are the exception, not the rule? In Uruguay, the total cost of the effort is US\$400 over four years per child, or US\$8 per month per child. As a country they have negotiated a price of US\$188 per device, and they have a new tender out for another 100,000 devices. Plan Ceibal's budget represents 5% of the country's total education budget and less than 0.15% of GDP. So, the numbers are ambitious yet attainable.

But why can major one-to-one efforts happen in Uruguay when it isn't happening in most U.S. school systems? It comes down to one key thing: political will. In Uruguay the President of the country had a vision (and now his successor has continued the commitment). Interestingly, all indications are that the public is overwhelmingly supportive of this social inclusion strategy.

Clearly, we are not suggesting that Plan Ceibal has been a perfectly executed effort and everything envisioned is currently reality. We were there only briefly and we can't speak to all aspects of the strategy. In a country as big and diverse as the U.S., we are likely to see many models for achieving a ubiquitous technology environment at school, at home and in the community. Yet, it is hard to deny that these countries are making a big commitment to social inclusion and, increasingly, a new vision for learning today.

We close by saying we believe it is the time for such a conversion in the U.S. with our policymakers, media and the public. Can we afford NOT to make this sort of investment in a more just and equitable American society? If we wait until we have all the answers, we will fall further behind while others around the world are making serious investments in their educational systems.



*Listen to the collective voices of the delegation as they reflect upon the delegation and its experiences*

**Short video**

<http://cosnintltrips.files.wordpress.com/2011/11/impressions-short.m4v>

**Full Video**

<http://cosnintltrips.files.wordpress.com/2011/11/impressions-full.m4v>

## **APPENDIX**

### **A. AGENDA**

#### **Wednesday, November 9, 2011**

Board overnight flight to Montevideo

#### **Thursday, November 10, 2011**

Arrive in Montevideo around noon

- |              |   |
|--------------|---|
| 3:00–4:00 PM | Short Orientation at Hotel<br>Laura Motta, Advisor, Member, Board of Teacher Education  |
| 4:30–5:30 PM | Meeting and briefing at U.S. Embassy<br>Susan Bridenstine, Public Affairs Officer, U.S. Embassy<br>Veronica Perez-Urioste, Education Specialist, U.S. Embassy |
| 6:00 PM      | Meeting and briefing at the Ministry of Education<br>Vice Minister of Education Eng. María Simón<br>National Director of Education Mto Luis Gabribaldi        |

#### **Friday, November 11, 2011**

- |           |   |
|-----------|---|
| 9: 00 AM  | School Visits (Divide into two groups)<br>Escuela/s N°189. Departamento Mdeo<br>Escuela N° 120 Mdeo.  |
| 1:00 PM   | Lunch at LATU Parrilla  |
| Afternoon | Meeting at Plan Ceibal: Implementation, Accomplishment and Policy<br>Laura Motta, Advisor, Member, Board of Teacher Education<br>Miguel Brechner, Presidente, Plan Ceibal<br>Miguel Mariatti, Director, Plan Ceibal, Laboratorio Tecnológico del Uruguay<br>Gonzalo Pérez, General Manager of Plan Ceibal |

#### **Saturday November 12, 2011 and Sunday, November 13, 2011**

Transport to Argentina

Free time

## Report of the CoSN Delegation to **South America** November 2011

### **Monday, November 14, 2011**

- 10:00–11:30 AM Meeting – Ministry of Education for the Autonomous City of Buenos Aires Government  
Esteban Bullrich, Minister
- 12:00–2:30 PM Welcome Meeting & Lunch with IIPE-BA ICT (International Institute of Education Planning Buenos Aires ICT) team  
Overview of the ICT in Education in South America
- 2:30 - 6:00 PM School Visits & Meeting with Head of Programs
- “Conectar Igualdad” National Program (High Schools)
  - City of Buenos Aires “S@rmiento” Program (Primary Schools)

### **Tuesday, November 15, 2011**

- 10:00 AM–12:00 PM Meeting with Ministry of Education of the Republic of Argentina  
Laura Serra, ICT Manager & Convergence, Educ.AR  
Cecilia Sagol, Content & Project, Educ.AR  
Educ.Ar/Offices – Conectar Igualdad
- 12:30–1:30 PM Lunch at IIPE-BA ICT
- 2:00–4:30 PM Videoconference: (30/40 min. each):  
Chile: Christina Escobar Barrientos, Enlaces  
Peru: Oscar Becerra, CTO, Ministry of Education, Peru  
Argentina (Cordoba): Gabriela Galíndez
- 5:00 - 7:00 PM Meeting with Argentinean ICT&Ed specialists  
Dialogue with CoSN delegation around common themes

### **Wednesday, November 16, 2011**

Morning – work on report before departing for airport for overnight flight

## Report of the CoSN Delegation to **South America** November 2011

### **B. SENIOR INTERNATIONAL DELEGATION TO SOUTH AMERICA**

**Sheryl Abshire**, Ph.D., Member,  
CoSN Board of Directors

Chief Technology Officer,  
Calcasieu Parish School System,  
Lake Charles, LA

**Denise Atkinson-Shorey**,  
Member, CoSN Board of Directors

President/Chief Information  
Officer, EAGLE-Net Alliance,  
Colorado

**Patricia Haughney**, Member,  
CoSN Board of Directors

Director of Information Services,  
Barrington CUSD 220, Illinois

**Holly Jobe**, President,  
International Society for  
Technology in Education,  
Pennsylvania

**Michael J. Kaspar**, Ph.D.,  
Senior Policy Analyst

Center for Great Public Schools,  
National Education Association,  
Washington, DC

**Keith Krueger**, Chief Executive  
Officer, CoSN, Washington, DC

**Ariadna Mahon-Santos**,  
Director, Participatory Learning,  
CoSN, Washington, DC

**Ed Massey**, President-elect,  
National School Boards Association  
Boone County Board of Education,  
Kentucky

**Paula Maylahn**, Project Director,  
Postsecondary Sector Education  
Division  
Software & Information Industry  
Association, Washington, DC

**Bailey Mitchell**, Chair, CoSN  
Board of Directors

Chief Technology and Information  
Officer, Forsyth County School  
District, Georgia

**Rae Mugnolo** (Sponsor), K-12  
Education, SMART Technologies,  
Illinois

**Gayle Pauley**, Director

Title I State Directors Association/  
Learning Assistance Program and  
Consolidated Program Review,  
State of Washington

**Alice Owen**, Secretary, CoSN  
Board of Directors

Executive Director of Technology,  
Irving ISD, Texas

**Jenny Raymond** (Argentina Only),  
Pearson Foundation

**Cynthia Schultz**, Of Counsel,  
Patton Boggs, LLP, Washington, DC

**Matt Skinner**, Pearson Foundation

**Irene Spero**, Chief Operating  
Officer, CoSN, Washington, DC



## **C. BACKGROUND MATERIALS AND REFERENCES**

### **Helpful Links:**

<http://www.ceibal.org.uy/>

<http://sarmientoba.buenosaires.gob.ar/>

<http://www.conectarigualdad.gob.ar/>

More on the beginnings and success of this initiative on the World Bank blog, EduTech, <http://blogs.worldbank.org/edutech/videos/uruguays-plan-ceibal-the-worlds-most-ambitious-roll-out-of-educational-technologies>

More on Programa Conectar Igualdad (Connect Equality Program) in this news article on Argentina Independent Web site, <http://www.argentinaindependent.com/currentaffairs/newsfromargentina/wireless-education-free-laptops-for-public-schools/>.

### **Blog – Education Initiative**

Education Initiative is a space for dialogue on education and its challenges in the XXI century.

*And Now...Quality: Insights into the Education Policy Debate in Latin America*

Bullrich, Esteban., Sanchez Zinny, Gabriel. Contains book chapters: What is going on in Argentine education, Does more Technology mean better education

*One-to-One Laptop Programs in Latin America and the Caribbean: Panorama and Perspectives*

Severin, Eugenio Eduardo; Capota, Christine A.-Apr, 2011

The introduction of technology in education is gaining momentum worldwide. One model of incorporating technology into education that has gained tremendous traction in Latin America and the Caribbean is One-to-One computing. The term "One-to-One" refers to the ratio of digital devices per child so that each child is provided with a digital device, most often a laptop, to facilitate learning. The objective of this document is to provide an overview of One-to-One implementations with a regional focus on Latin America and the Caribbean. It also proposes a systemic approach to improve the quality of education in contexts of mass laptop distributions to students and teachers.

### **Plan Ceibal in Uruguay**

Plan CEIBAL (Educational Connectivity of Basic Computing for Online Learning) was implemented in Uruguay within the framework of the Access to Digital Information Equity Plan. It fulfilled its first goal of distributing laptops to all of the students and teachers in Uruguayan public primary schools within a term of two years, and began to project itself towards the basic cycle of middle education. In order to achieve the effective integration of children and teenagers into the information and knowledge society, they should all have equal opportunities as regards access, not only to information and communications, but also to new learning environments, in keeping with the technological context of modern society.

### **PowerPoint Presentations**

#### **Plan Ceibal**

Provides a brief overview of Plan Ceibal, one-to-one initiative in Uruguay.

#### **One Laptop Per Child**

Presentation on the background on One Laptop per Child effort



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The report was compiled and written by Irene Spero, Chief Operating Officer, CoSN.