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To: "Dr. Baruch Fischhoff - Chair, National Academy of Sciences Study on Social & Behavioral Science and Improving Intelligence for National Security"

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From: Lloyd Etheredge <lloyd.etheredge@policyscience.net>

**Subject: World politics & the Experimental Methods chapter; One Laptop per Child; Afghanistan**

Dear Dr. Fischhoff and Study Group Members:

There is an intriguing idea for societal breakthroughs and rapid development organized by Nicholas Negroponte, the former head of MIT's Media Lab. The One Laptop per Child vision (<http://laptop.org/en/>) is to give a low cost multimedia, network- and Internet-equipped, educational XO laptop to every child in the world's underdeveloped countries.

The idea is worthy of bold experiments: If it works, it shakes-up the game board. It could allow cultural, political, and economic development to leap-frog several generations of historical development. It could win, for modernity and full engagement in the future, today's youth generation that will become tomorrow's rulers.

### **From Uruguay to Afghanistan**

President Obama's plan for Afghanistan, to be announced next Tuesday, is reported to include an intense focus on security and economic/political development in Kabul and about six other larger cities. These would be attractive sites for a bold One Laptop per Child experiment. If there is a way to produce a cultural, economic, educational, and political breakthrough for the youth generation in these cities, that is a method/catalyst that President Obama needs. And by monitoring these implementations and learning lessons we would learn a great deal that might give America additional leverage for leadership to solve the world's problems. (For example in what Global 2025 calls the "youth bulge" countries where we could rapidly supply a catalyst for a better future, in countries where we do not have other cost-effective ideas that could be as good.)

It might also be worthwhile for the National Academy of Sciences to recommend an advisory group, to the DNI, to refine the experimental designs and

observations. It also could be useful to assure educational resources for K-12 for science and math education, environmental education, and other fields - perhaps, too, the writing and design of computer software.

Here is the recent news story from BBC News:  
Lloyd Etheredge

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Laptop for every pupil in Uruguay  
By Verónica Psetizki  
Montevideo, Uruguay

**Uruguay has joined the small number of nations providing a laptop for every child attending state primary school.**

President Tabaré Vázquez presented the final XO model laptops to pupils at a school in Montevideo on 13 October.

Over the last two years 362,000 pupils and 18,000 teachers have been involved in the scheme.

The "Plan Ceibal" (Education Connect) project has allowed many families access to the world of computers and the internet for the first time.

Uruguay is part of the One Laptop Per Child scheme, an organisation set up by internet pioneer Nicholas Negroponte. His original vision was to provide laptops at \$100 (£61) but they proved more expensive.

The Uruguay programme has cost the state \$260 (£159) per child, including maintenance costs, equipment repairs, training for the teachers and internet connection.

The total figure represents less than 5% of the country's education budget.

Around 70% of the XO model laptops handed out by the government were given to children who did not have computers at home.

"This is not simply the handing out of laptops or an education programme. It is a programme which seeks to reduce the gap between the digital world and the world of knowledge," explained Miguel Brechner, director of the Technological Laboratory of Uruguay and in charge of Plan Ceibal.

In a similar project, every child in the tiny South Pacific nation of Niue has an OLPC laptop. In 2008, Portugal committed to giving Intel Classmate laptops to every six-10 year old in the country.

**"A revolution"**

In the run up to Uruguay's general election on 25 October, the project is being promoted as an achievement

of the Tabaré Vázquez government.

"It's been a revolution, which has helped us enormously, but it hasn't been easy," explained Lourdes Bardino, head teacher of School 173 in Las Piedras.

Ms Bardino said that some teachers were originally opposed to the introduction of the XO laptops.

"We have a lady who's been teaching for 30 years and when they gave us the computers and the training, she asked for leave because she didn't want to have anything to do with the programme. Later she changed her mind and now computers have changed the way she teaches."

All the teachers have been given training, but the extent to which they use the laptops in the classroom is up to them.

Research carried out recently by the State Education authorities revealed that some teachers have chosen not to include computer-related work in their lesson plans.

### **Costs and criticisms**

The laptops have an open source Linux operating system with a user interface called Sugar. It has attracted some criticism from detractors for not being mainstream.

However Mr Brechner believes that children should learn computer skills regardless of the software available. Blind children were being taught on a Microsoft Windows operating system, he said.

The annual cost of maintaining the programme, including an information portal for pupils and teachers, will be US\$21 (£13) per child.

### **The future**

**" Its a culture shock scenario - many countries are simply too scared to put it into practice "**

Miguell Brechner, head of Plan Ceibal

Now that all the schoolchildren have their computers, the authorities say that they will endeavour keep the schools connected, particularly those in rural areas, where many still do not have internet access.

There are plans to extend the scheme to secondary schools and pre-school children next year.

Organisers of the Plan Ceibal have set up a consultancy in order to advise other countries wishing to replicate the Uruguayan experience.

Mr Brechner said that Rwanda, Haiti, El Salvador, Paraguay, some provinces in Argentina and Colombia have been in touch although they have not yet decided to contract their services.

"We would help them with tenders, planning, evaluation, which software to use, how to spread the word,

training, all the "know how" we have developed. We don't have a manual. It's a culture shock scenario - many countries are simply too scared to put it into practice."

Story from BBC NEWS:

<http://news.bbc.co.uk/go/pr/fr/-/2/hi/technology/8309583.stm>

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