

## An Abridged Proposal

# *Education for All – an effective low cost model*

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## **Background**

• There are today 264 million children and youth not going to school

• The number of youth with no literacy skills has fallen by 27% since 2000 although more than 100 million young people still cannot read

• Education is at the heart of sustainable development and the Sustainable Development Goals (SDGs) – education is the most vital input for every dimension of sustainable development. Better education leads to greater prosperity, improved agriculture, better health outcomes, less violence, more gender equality, higher social capital and an improved natural environment. Education gives us the key tools to take on the SDGs and to achieve them

- Global Education Monitoring Report 2016 & 2017

• The world needs another 20 million additional teaching posts to achieve universal primary and secondary education by 2030

- UNESCO

There are not enough school teachers around the world, but this shortage is most acutely felt in the rural areas of developing countries and in conflict affected regions. Very few of the available teachers are willing to teach in these areas where amenities are not at par with those available in the urban areas and in conflict affected areas where their safety is not guaranteed.

The above state of affairs has resulted in situations where several communities around the world do not have functional schools, and in those that have, single classes comprising of students of several age groups are not uncommon.



In recent times, even schools in the urban areas are also beginning to experience a shortage of teachers.

### **Proposed Solution**

A multi-stakeholder initiative to beam via satellite to the affected region, educational content covering the child's first 12 years of education i.e. from primary through to senior secondary school.

To ensure that the children are exposed to the very best education available, top schools (public/private) in the region would be identified, and classroom activities from these will be beamed via satellite to rural school across the region as free-to-air content.

The rural schools on the receiving end will use satellite dishes, free-to-air satellite TV decoder and large screen TV sets to receive and show the content to their pupils.

The initiative would not only benefit rural schools, urban schools that do not have experienced/qualified teachers for particular subjects can also take advantage of the service to make up for their staff deficiencies.

The project will be set-up to run on solar power, given the absence or often erratic state of electric supply in the rural areas of developing countries, and in conflict affected regions.



The set-up for a typical rural primary school running one arm each of primary 1 to 6 will be as follows:

- A bank of solar panels
- A pack of batteries for energy storage
- 1 satellite dish
- 6 satellite decoders with PVR facility to handle time zone difference issues
- 6 large screen TV

The cost of the above is expected to come to about \$10,000 per location.

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A secondary school running one arm of classes 1-3 of junior, and three arms (arts, commercial & science) of classes 1-3 of senior secondary school will require a slight larger set-up.

*High-quality, relevant secondary school education has measurable positive effects on young people's health, improved child mortality rates, reduced population growth, and greater economic growth. Girls with higher levels of education marry later, have smaller families, survive childbirth at higher rates, experience reduced incidences of HIV/AIDS, have children more likely to survive to age five, earn more, and contribute to higher rates of economic growth at the national level. In developing countries, one additional year of education adds about 10 percent to a person's earnings, and a 12 percent reduction in world poverty could be achieved if all students in low-income countries were to obtain basic reading skills in school*

*- report by the Center for Universal Education at Brookings*

### **Stakeholders/Project Partners and their expected role**

- The rural community in which the school will be sited.
  - Provide classrooms to accommodate the student, these can be anything from tents or simple thatch roof sheds that keep out the sun and rain, to proper classroom blocks.
  - Provide adults to maintain order in each classroom; these do not necessarily have to be literate - [https://www.ted.com/talks/sugata\\_mitra\\_shows\\_how\\_kids\\_teach\\_them\\_selves](https://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_them_selves)
  - Provide simple lavatories.
  - Ensure security of pupils.
  - Discourage gender discrimination against girls and ensure that all children start school at the appropriate age.
  - Demonstrate active interest in assessment and learning outcome of the school.
- Satellite TV company with transmission facilities that covers the concerned region.
  - Provide about 18 free-to-air video channels to transmit the educational content.
  - Provide recording facility and personnel to capture the content in the selected school.
- Selected schools i.e. model schools in the region that run excellent values driven educational programmes.
  - These will permit video cameras to be placed in their classrooms to capture the class activities as they take place.



- Recipient country
  - Provide logistics support for the distribution of equipment that will be used for the project.
  - Set learning targets and conduct regular assessment of the schools, and the learning outcome of the pupils.
  - Make public the result of the assessment and based on results of the assessment take remedial action where necessary.
  - Post trained teachers to the rural schools as they become available so the program can be phased out over time.
- Donors
  - Provide funding for equipment to be used in the schools
  - Provide funding for annual running cost - satellite TV transmission, etc.
  - Provide funding for low cost textbooks and learning aids to be used by the pupils
- Manufacturers of solar panels, deep cycle rechargeable batteries and balance of system components
  - Supply solar panels, batteries and other components to the project at cost recovery price
- LED TV manufacturer
  - Supply large screen LED TV sets to the project at cost recovery price.

### **Teacher training**

While the foregoing will help make top quality educational instruction available to all children, it is only intended as a stop gap remedy to the out-of-school and teacher shortage situation. A more lasting solution to the problem will be provided by the afterhours teacher-training modules that will be built into the programme. The modules will be aired after the regular school hours, and will be available to adults that are desirous of been trained to become teachers. It will help train and increase the number of qualified teachers in the region.

The modules which will incorporate the latest findings in child education and methods of instruction, will in addition to training new teachers, be available as professional

development resource for existing teachers and will hopefully go some way in helping to reverse the learning crisis been observed in school systems around the world.

*“More than half of the world’s children (387 million) are expected to finish school without being able to read”- UNESCO*

### **A Parallel Channel**

The effectiveness of the program set out above could be greatly enhanced if donors can help make available to the school pupils and their teachers, tablet computers loaded with self paced learning materials such as those by Khan Academy (<http://go.ted.com/I8HB6A> & <https://go.ted.com/CyRM>) for the students, and teacher training/professional development materials for the teachers.

A global campaign by the major tabs manufacturers encouraging tab owners to donate their old tabs to the project whenever they are upgrading to newer models, would help fetch a good number of tabs. These would be configured to only run the above content so they do not end up in the open market or diverted to other uses.

Such a program will provide the pupils and their teachers access to some of the best personalised learning resource available in the world, enabling them to learn at their own pace.

The project can be upgraded in the future by the addition of equipment that provide connectivity to the internet when more affordable connectivity is made available by the latest generation high throughput satellites and the low-Earth orbit satellites. These will make it possible for students to access the resources of the internet including Open Education Resources such as, [www.edx.org](http://www.edx.org) , [www.Coursera.org](http://www.Coursera.org), etc. that can help meet the needs of those desirous of progressing past senior secondary school .

The initiative can also be used to aid the attainment of several of the other SDGs by the inclusion of after school modules that teach:

- Farmers ó lessons on improved farming and storage methods to combat extreme poverty and hunger
- Birth Attendants - lessons on child and maternal health.
- Community Health Workers ó to promote primary health care deliver and healthy living
- The community at large ó lessons on financial literacy including the setting up of microfinance banks and cooperatives; sustainable environmental practice; gender equity, etc.

The set up can also be used to promote a variety of campaigns, from those seeking to end Female Genital Mutilation to the 'Roll Back Malaria' campaign.



And others such as the Water Sanitation and Hygiene (WASH) campaign or those seeking to end child marriage.



It can also be used to run early childhood development programs, adult literacy programs or used to provide a second chance learning opportunity for those that dropped out of school.

There are several nomadic people groups around the world, and the world also has a significant refugee population; the educational needs of the children of both of these groups will be adequately served by the initiative.

### **Conclusion**

“On current trends only 70% of children in low income countries will complete primary school in 2030, a goal that should have been achieved in 2015. We need the political will, the policies, the innovation and the resources to buck this trend.”

“If we are serious about SDG4, we must act with a sense of heightened urgency, and with longterm commitment. Failure to do so will not only adversely affect education but will hamper progress towards each and every development goal: poverty reduction, hunger eradication, improved health, gender equality and women’s empowerment, sustainable production and consumption, resilient cities, and more equal and inclusive societies.”

“We must fundamentally change the way we think about education and its role in human wellbeing and global development. Now, more than ever, education has a responsibility to foster the right type of skills, attitudes and behavior that will lead to sustainable and inclusive growth.”

“If we leave the current young generation without adequate schooling, we doom them and the world to future poverty, environmental ills, and even social violence and instability for decades to come.”

- Global Education Monitoring Report 2016

We believe that given the necessary support, this initiative will go a long way in bucking the above trend, and helping several developing countries meet the SDG4 target.

The initiative does not call for the development a new technology as the basic infrastructure already exist, and is being used very efficiently by satellite companies around the world, so it can be rolled out very quickly and at a cost which is a fraction of those of other suggested solutions.

We also believe that an initiative such as this, which can begin to show immediate result, should not have difficulty attracting the support of the various stakeholders/project partners enumerated above.

The solution is one that can be deployed in regions around the world that are facing challenges meeting the SDG #4 as Africa, Asia, the Middle East and South America.

**Corporate Profile**

Internet Technologies Limited was founded in 1999 with the intention of sharing information, fostering technological advancement and using this as a base for promoting development and business in the virgin markets of Nigeria and the West African region. Two offices are currently maintained; a head office in London, and a branch office in Nigeria.

With leadership from our Chief Executive Officer ([CEO](#)), a chartered accountant of Nigeria, and our Chief Technical Officer ([CTO](#)), a distinguished technology Consultant in the United Kingdom. The directors, in addition to a business imperative, have a very strong desire to put something back into the systems in which they do business i.e. contribute in some meaningful way to development in the host country.

The company has invested effort in revisiting the options available for catalysing development using the ICT structures available in our environment, and the idea set out above is one of the results, which God by His grace has allowed to come out of the exercise.

We earnestly hope that regional bodies and development agencies around the world will embrace the idea, while we stand ready to serve as project managers.

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