Transforming education throughout the Philippines

Education in the Philippines state education sector faces many challenges – millions of children are missing out on school because of financial, social, or physical challenges; pupil-teacher ratios exceed 40:1; many teachers do not have adequate qualifications and there is a shortage of quality teaching materials. These problems have also led to a high level of disengagement among students.

Text2Teach is an initiative created in 2003 by an alliance of telecommunications and education organisations, including Globe Telecom, the Department of Education, Nokia, the Ayala Foundation, Toshiba and the Pearson Foundation, to supply schools in hard-to-reach communities with high-quality education audio and video materials and integrated teacher training. It is making a significant contribution towards the objectives of the Philippine 'Education for All' strategy, particularly:

- Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes

- Improving all aspects of the quality of education and ensuring the excellence of all so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

Key partners

Globe Telecom is one of the largest telecommunications companies in the Philippines. They provide the telecom infrastructure, host the Text2Teach servers and offer free use of helpdesk phone lines to schools and students taking part. **http://beta.globe.com.ph/**

The Philippines Department of Education defines the curriculum objectives and pedagogy of the programme, ensures that the content meets Departmental objectives, and supports the integrated teacher training. **www.deped.gov.ph**

Global mobile communications leader, **Nokia,** is the largest private-sector funder of the programme. They developed the specialised software for delivery and provide technical and training support for its development. **www.nokia.com/ph-en**

Ayala Foundation Inc. (AFI) is the corporate social responsibility (CSR) arm of the Ayala Corporation. They act as the project lead; overseeing the use of resources, the selection, coordination and validation of schools, technical support, the helpdesk, teacher training, and monitoring and evaluation. **www.ayalafoundation.org**

The Pearson Foundation is an independent education organisation that promotes literacy, learning and great teaching across the world. They funded and quality assured the development of the new learning content and the textbook for Text2Teach trainers. **www.pearsonfoundation.org**

Toshiba Information Equipment, guided by a corporate philosophy rooted in the concept of 'Committed to People,
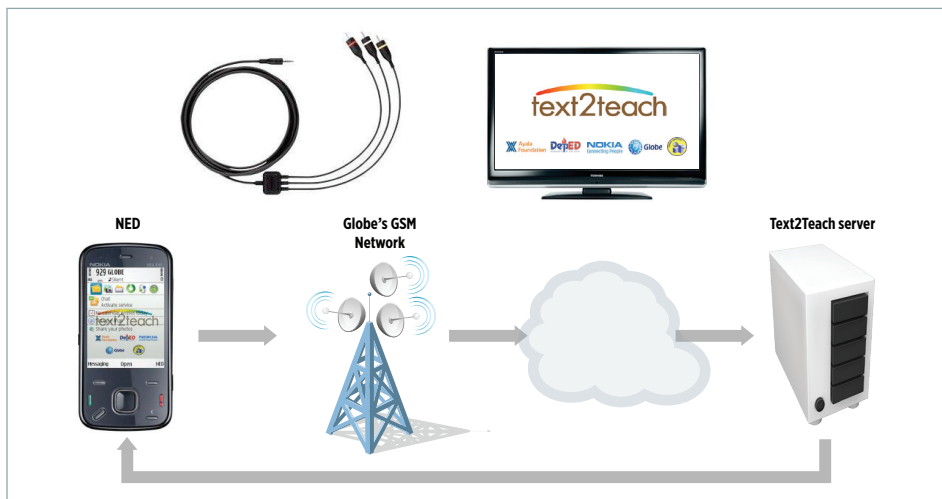
Committed to the Future', recently donated 300 brand new 32-inch LED TVs to the Text2Teach project for distribution to recipient state primary (public elementary) schools in the country.
www.asia.toshiba.com/philippines

Why is Globe Telecom involved?

Globe Telecom's CSR programme, Globe Bridging Communities (GBC), promotes economic, environmental and social sustainability using a 'Communities of Practice' approach. They invest resources in schools and education to produce a positive social impact and enhance students' academic development.

By leveraging their network capabilities and promoting collaboration with communities and partners, GBC is able to introduce innovative and inspiring learning experiences for both students and teachers.

NED   **Globe's GSM Network**   **Text2Teach server**

Nokia Data Gathering (NDG)

NDG is a mobile-based data collection software that enables fast, accurate and cost-effective data collection even from remote locations. Data collection happens in real time, and gathered data can be filtered and exported to MS Office software, such as Excel, for report generation.

In phase 4, NDG software is being introduced and implemented as a means of providing an efficient and cost-effective way to monitor the use and effects of Text2Teach in schools.

AFI

AFI creates and sends surveys to the Text2Teach schools' mobile phones, collates the results, generates reports on key performance indicators and returns them via Globe's network. These include average grades per subject area, dropout rates, Text2Teach use and maxisation, project sustainability and project delivery and monitoring.

The services

Text2Teach is designed to reach underfunded and neglected state primary schools and their communities in the Philippines, especially those in remote areas such as Roxas, Palawan; Albay, Bicol and soon Patikul in Sulu.

Using mobile phones donated by Nokia and an internet connection provided by Globe, teachers can download and play any of the 400 Text2Teach educational audio and video materials designed specifically for the programme. The videos are designed to act as a supplement to lessons rather than a replacement – the average length of a video tutorial is only 4–6 minutes and they tend to focus on the more difficult concepts and overlooked skills.

Text2Teach materials create a dynamic, interactive and student-focused learning environment and represent an invaluable aid for teachers. They keep the students engaged and eager to go to school.

Downloaded videos are automatically catalogued for ease of access and retrieval.

Teachers access and download videos from a constantly updated catalogue over Globe Telecom's network. The phone can be connected to a normal TV or a video projector to play the videos to a class.

STEP 1: Create questionnaire(s)

STEP 2: Send questionnaire(s) to mobile phones

STEP 3: Collect data on the mobile phones

STEP 4: Send the data from the field

STEP 5: Analyze the date

"When T2T was implemented, I noticed my child became more conscientious in studying his lessons. He is hardly absent from class because it's very nice to have lessons using T2T." **Voltaire Urbano, Parent, Candon, Ilocos Sur**

How does it work?

The core technologies and key processes of the Text2Teach programme are as follows.
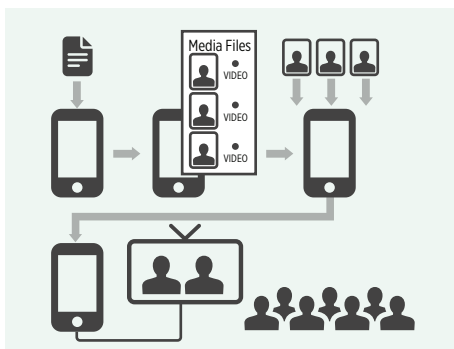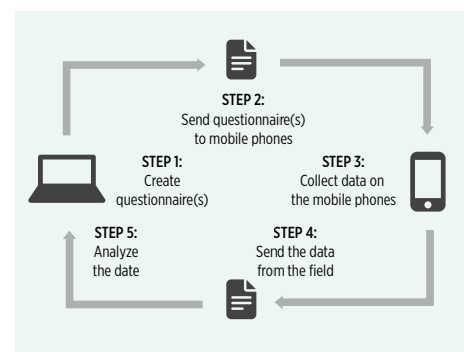
Nokia Education Delivery (NED)

Developed by Nokia, NED uses mobile technology to deliver educational videos via phone to remote, hard-to-reach areas, and stores the data on the phone for future use.

NED also has a statistics feature for monitoring usage and a search feature.

"NDG has helped me a lot as a division ICT coordinator to access and gather data immediately from schools. It has lessened the cost of gathering data because it reduces my travel to visit hundreds of school under my care. It increased my productivity since the data I need to analyse is available when I need it. Lastly, since it's mobile, our teachers and school heads do not need to go [to an] internet shop just to access the survey questions that were sent to them."

Runato A. Basañes, Education Program Supervisor, Division ICT Coordinator, Department of Education (Antique Division)

Learning content

Text2Teach is currently tailored to students in Grades 5 and 6 (for pupils on average 10-12 years old) and aims to make Maths, Science, English and Values Education fun and exciting.

All the materials are aligned with the national education curriculum. The teachers' guides contain prototype lesson plans and work that students can do in class. They were written by Department of Education specialists and senior teachers and are therefore easily integrated into lessons.

Training the school heads and teachers to use the materials ensures that they are employed to their best advantage and that the teachers are confident and enthusiastic about the programme.

As the programme has developed it has become clear that the benefits spill over from the students and teachers directly involved to students in Grade 4, the school heads and the Department of Education's education programme supervisors.

Timescales

Phase 1 (2003–5): BridgeIT, a global programme aimed at improving the quality of teacher instruction and primary school student achievement in Maths, Science, and Life Skills by leveraging the power of cell-phone technology, was launched. Nokia, the Pearson Foundation, the International Youth Foundation (IYF) and the United Nations Development Programme (UNDP) were behind the programme.The first pilot was Science focused and was conducted in 2003, where it came to be known as Text2Teach. Text2Teach was first introduced to 81 schools in Quezon City, Manila, Batangas, Laguna, Cotabato City, Oriental Mindoro, Calapan City, Antique and Cagayan de Oro.

Phase 2 (2005–7): In 2005, SEAMEO INNOTECH, a member of the Education and Livelihood Skills Alliance (ELSA), and Ayala Foundation, Inc. (AFI) introduced Text2Teach to 124 public schools in Mindanao. New videos and teachers' guides funded by USAID were developed to cover Grades 5 and 6 English, Maths and Science. The project spread to Maguindanao and North and South Cotabato.

Phase 3 (2008–11): Nokia provided a grant of P27 million (around $600,000) to be matched 1:1 by the local alliance of Nokia, AFI, Globe the Department of Education and SEAMEO INNOTECH, with the aim of extending Text2Teach to 350 new schools using Nokia Education Delivery (NED) technology. Local project management was transferred to AFI.

Phase 4 (2011–14): Nokia, Globe Telecom, the Pearson Foundation, the Department of Education and AFI are working towards the sustainability of the project, each with a clearly defined role:

- review and enhance existing Text2Teach education materials
- develop and produce new videos and teachers' guides
- train trainers and teachers
- expand to 850 new schools
- upgrade the satellite and media master schools to NED as needed
- evaluate the programme.

Due to the success of the project, it is now being replicated in 10 other countries as part of the global BridgeIT programme.

"My classmate used to refuse to show her report card but when T2T came, I told her, you're no longer ashamed to show your cards."
Ryan Valdez, Student, Candon North Central School.

Technical support

Schools access new and updated content by refreshing their library and downloading the video content, calling on Text2Teach for advice where necessary. For the software, Text2Teach provides the local ICT representative of the Department of Education with instructions on how to update the software application and mobile devices.

If schools have a problem with their equipment there's a help desk for them to ring, provided free of charge. An alert level system then determines what support the help desk will provide:

- Alert level 1 – help desk will talk the caller through what to do using the manuals provided during teacher training

- Alert level 2 – depending on the problem, the help desk will refer the caller to closest relevant customer care – so Nokia Care for Nokia, Globe customer service for Globe and the Toshiba service centre for Toshiba – briefing the customer service with details of the school and the problem

- Alert level 3 – Text2Teach will send a technical person to check the problem/issue.

Text2Teach is currently used by (as of December 2013):

- 897 schools
- 309,672 students
- 3,744 teachers.

Evaluation

Text2Teach has been independently evaluated three times:

- Phase 1 by the UP-National Institute for Science and Mathematics Educational Development to determine the impact of Text2Teach

- Phase 2 by the UP-Demographic Research and Development Foundation

- Phase 3 by a team of Education consultants.

Benefits

- Improvements in achievements in Maths, Science and English, although the improvement in Maths only became significant after two years of the programme

- Overall classroom behaviour and discipline have improved as students become more engaged in discussions after viewing the materials

- Students interacting more with each other and their teachers

- Better retention of concepts, especially in Maths and Science, with students achieving higher scores in post-viewing evaluation activities

- Teachers displaying improved competence in using technology and a more positive attitude toward technology as a teaching tool

- The community, school officials, parents and community leaders are all more enthusiastic and knowledgeable about the use and benefits of technology in education.

Lessons learned

- Keep the production value of the videos high with a variety of approaches to content or students start to disengage

- Ensure that voiceovers are done by Filipino actors with neutral accents rather than actors with American, British or Australian accents who may not be easily understood

- Make sure that content is relevant to the context of the Philippines – for example the use of salt on snowy streets needs extensive follow-through and explanation. Also make more materials available in Filipino

- Develop a stakeholder engagement framework to ensure that stakeholders are clearly identified and involved throughout the process in continuously developing the programme.

What next?

The Text2Teach alliance is working towards extending the project to all public elementary schools who haven't to date participated in the programme, training more teachers and Department of Education personnel, and raising global awareness of the effectiveness of Text2Teach in improving education and students' learning opportunities.

Contact

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Comment by the GSMA

This case study demonstrates what can be achieved through multi-sector partnerships in education – government, multi-national organisations, foundations, technology providers, telecom operators and schools – collaborating towards agreed, shared goals. Through Text2Teach, teachers and pupils, many of whom are located in remote, neglected regions of the Philippines, can benefit from rich materials which help supplement their learning experience. Starting from a modest trial, Text2Teach has within a decade benefitted more than 300,000 students. We look forward to seeing how it continues to develop.