



Case Study

Intel-powered classmate PC
Non-governmental organization
Education

Connecting Vietnam's orphans with a world of possibilities

Orphan Impact uses Intel-powered classmate PCs to expand the horizons of children in Vietnamese orphanages

Less than 10 percent of all Vietnamese students end up going to university, and rates are lower than 1 percent among children in the country's 153 orphanages. Coordinators of the Orphan Impact* program hope to change that by using Intel-powered classmate PCs to expose the children to a world of new possibilities.



"This program gives the children a real opportunity to succeed. Now it is up to them what they will do."

Tran Thi Quyen
Teacher
Orphanage, Ho Chi Minh City

Challenge

- **Provide new opportunities for disenfranchised children.** Children in Vietnam's orphanages are looked after until they turn 18. However, it is difficult for the isolated children to connect with the outside world and imagine the possibilities their future could hold. Given a lack of formal training and incentives, few end up at university or with rewarding professional careers.
- **Instill ICT skills early on.** Scarce resources mean most of the orphans in the system have never even used a computer, much less received the kind of training that will equip them for the modern workforce.
- **Foster a technology teaching culture.** Teachers often don't have the skills to deliver effective ICT training. Orphan Impact's organizers aim to provide the tools and training to foster a self-perpetuating culture that makes ICT an intrinsic part of the orphan care system.

Solution

- **Classmate PCs in orphanages.** Orphan Impact's pilot program saw five Intel-powered classmate PCs provided to each of five Vietnamese orphanages. Children shared the computers in small groups that gave them hands-on training using the Internet and software applications.
 - **Find friends across the world.** Through a sister-school program with five schools in the United States, the orphans used classmate PC's for regular videoconferencing and production of short videos to talk, share, and learn about other cultures.
 - **Support local teaching.** To ensure the program fostered lasting change, Orphan Impact and Intel Education Service Corps volunteers focused on empowering local teachers with sustainable ICT knowledge.
 - **Create new career paths.** Career prospects for Vietnamese orphans have traditionally been rather limited. By introducing ICT as an area of study and engaging Vietnamese IT professionals to serve as mentors, Orphan Impact is providing new options to children that might never have known they were there.
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Intel-powered classmate PCs provide a reliable, effective computing experience that opens Vietnamese orphans to new possibilities

Assessing the Situation

Familiarity with technology is rare amongst Vietnam's 13,000 institutionalized orphans, many of whom spend most of their childhood years at one of the government's 153 facilities. Their lives are secure but their schedules mundane. Apart from their daily trip to the local public school, the orphans rarely venture beyond the facilities' walls and have little involvement with the outside world.

Because of the structure of the orphanages, the students can emerge with little or no exposure to everyday technology. This compounds already-severe disparities in educational access: fewer than one percent of graduating orphans proceed to university, compared with a national rate of around 10 percent. Few of the students graduate with even rudimentary computing skills, disadvantaging them in the workforce and limiting their career prospects.

Options for improving the situation have been few: although many foreign non-government organizations offer assistance to give orphans access to healthcare, vaccinations, nutrition, education, and other services, limited funding has long restricted access to computers. Those few systems that are available are out-of-date and inadequately maintained, with little or no structured education or support.

Spotlight: Orphans Overseas

- Non-government organization based in Portland, Oregon, USA
- Operates a range of family permanency, vaccination, and other orphan care initiatives in Vietnam.
- Orphan Impact ICT training program was established to inspire orphans to focus on their education and dream of a better future
- Supplemental ICT training provided through scholarships, computer camps, and other local initiatives
- Web site: www.orphanimpact.org

Improving this situation was the goal of Orphan Impact, a program run by the non-government organization Orphans Overseas to address the continuing lack of computer experience among Vietnamese orphans. By working with orphanages to source appropriate computing technology, train teachers and foster student learning, the Orphan Impact team hoped to open the children's eyes to the career possibilities that technology skills can provide.

"The program came into being as a way to use something that might excite the kids and motivate them to pursue further education after they left the orphanage," said Tad Kincaid, an international lawyer who serves as project coordinator for Orphan Impact. "Our goal is to use technology as an opportunity to encourage these children to take their education more seriously."

While the goals of the program were clear, the means to achieve those goals were less so. Conventional laptops are expensive to purchase and maintain, particularly given the wide distribution of the orphanages and the relative scarcity of skilled support staff outside Vietnam's major cities. This left open the very real danger that the computers might be well looked-after for a brief period, but then fall into disuse if they could not be maintained effectively.

Another challenge was scale: with just a handful of volunteers on the ground, there was no way Orphan Impact could maintain a massive contingent of technology trainers, support and other staff to keep the program running. To remedy this, it was essential that the organization put ownership of the program on the orphanages, and develop a teaching and learning culture that would continue to benefit the children even when the volunteers weren't physically involved.

Delivering the Solution

Orphan Impact needed a laptop solution that would maximize the value gained from the organization's chronically limited resources. The Intel-powered classmate PC fit the bill perfectly, combining low cost and uncompromised functionality with a rugged design that would stand up to the rigors of everyday use by children.



"Especially because many of these villages are remote, it was important for us to use something that was more rugged than a standard laptop. When we became aware of the Intel-powered classmate PC, we jumped at it: the design and durability of a classmate PC allow us to distribute it to the children and know it can handle wear and tear better than other laptops. It's the best way for us to provide this type of technology."

Tad Kincaid
Project Coordinator, Orphan Impact
Orphans Overseas



"If we came in with textbooks and just said 'we want to improve your education', the kids wouldn't have necessarily been as excited. But when we bring in an Intel-powered classmate PC, their eyes light up. They jump up, and all of a sudden they're learning without even knowing it."

Tad Kincaid
Project Coordinator, Orphan Impact
Orphans Overseas

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Orphan Impact worked with five Vietnamese orphanages to set up a pilot program that put five classmate PC's into each site, with 25 PC's initially serving 390 children and two children sharing each laptop. All participated in a program that had been set up with several sister schools in the United States, allowing the Vietnamese children to use the classmate PC's built-in video camera to run Skype* videoconferencing sessions with overseas students.

Students on both sides were also given the use of Cisco Systems* Flip* Mino videocameras, which they used to record short videos showing different aspects of their daily lives. Classmate PC's were used to edit and share the video clips via a password-protected site.

Despite language and cultural barriers, the children quickly became friends. "As soon as

the kids saw each other, even if they had been a bit apprehensive, they started sharing and singing common songs," Kincaid recalled. "It has been a fascinating cultural exchange that has given them new insight, and the audio and video aspects provide much more richness than communicating with words alone."

The results of the program were immediate and significant. Children in three of the five orphanages had never used computers – and the other two had outdated, ineffective equipment – but within days they had quickly taken to the technology and looked forward to using it for daily catchups with world news and their US friends.

"My favorite activity on the computer is to search for information on Google*," said Vinh, a ten-year-old orphan from Nam Dinh. Some students caught on so quickly that they were already writing emails while others were still being taught to turn on the CMPCs.

Supported by several members of Intel's Education Service Corps – a global volunteer initiative that brings technical skills to developing countries – Orphan Impact volunteers work with teachers and orphanage staff to share the possibilities the new technology provides.

Key Technologies

- Five Intel-powered classmate PCs running Microsoft* Windows* XP are used at each orphanage to provide students with access to basic applications and the Internet.
- Videoconferencing via Skype* and the classmate PC's built-in video camera allows the students to communicate and collaborate with similar students in the United States and elsewhere.
- Students use Cisco Systems* Flip* Mino* handheld video cameras and classmate PC's to shoot, edit, and share short video clips of their everyday lives.
- The ePals* hosted email service allows students to communicate with the outside world while protecting their privacy and allowing Orphan Impact staff to monitor and guide their activities.

Integral Answers

- Orphan Impact provides support for the devices from its home base in Hanoi, using Skype* for regular contact and visiting each site every few months.
- Volunteers from the Intel Education Service Corps, an Intel initiative to involve employees in over the deployment of classmate PCs in developing countries, helped to set-up the PCs and train the students and staff in their usage.

Regular site visits help organizers identify and remedy issues, while support via both local technicians and remote Skype sessions allow day-to-day problems to be addressed. Use of ePals.com* email – an online mail service that is both hosted and easy to monitor – helps Orphan Impact staff follow students' progress and see how they are using classmate PC's.

Even exposure to local support staff expands the childrens' horizons, presenting local role models for students who need technology skills to compete in today's workforce. "It's a great motivating factor for the kids to see successful Vietnamese with good jobs, who have graduated from university and now working in an exciting, modern-day field," said Kincaid. "It's a very good example for the 16 to 17 year olds who are beginning to consider their futures."

After just a few months of the pilot program, Orphan Impact had already signed up 20 more orphanages and expects to have more than 80 Intel-powered classmate PCs set up in Vietnamese orphanages by the end of 2010. Other planned programs include intensive computer camps and advocacy programs that, it is hoped, will ultimately convince most of the country's 153 orphanages to participate.

Although the pilot program focused on evaluating ways of introducing the technology into the orphanages, Kincaid's team also has longer-term goals. For example, the program's first annual scholarship was awarded in November 2009 to assist one orphaned girl to attend university. Each student who graduates from the orphanages and progresses to university will be a win for Orphan Impact and the Intel-powered classmate PCs.

For more information on the Intel World Ahead Program and the Intel-powered classmate PC, refer to the following resources:

Intel World Ahead Program: www.intel.com/worldahead

Intel-powered classmate PC Portal: www.classmatepc.com

Return on Investment

- Access to technology gives students skills both in the mechanics of computer usage and in their ability to enable new forms of communication with people around the world.
- Getting children excited about technology early gives them scope to explore their own interests in the world around them – and the world outside the four walls of their orphanages.
- Involvement of local technical support staff sets a good example for older orphans. "It's a great motivating factor for the kids to see successful Vietnamese with good jobs, who have graduated from university and now working in an exciting, modern-day field," said Kincaid. "It's a very good example for the 16 to 17 year olds who are beginning to consider their futures."
- Extensive involvement of teachers, orphanage staff, and local support technicians helps promote cultural change that will normalize the understanding of the value of a university education.

