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Case Study

Developing Content for the Community

To bridge the digital divide, the Commission on Information and Communications Technology (CICT) aimed to deploy the Community e-Center (CeC) to give poor and marginalized communities access to information through the Internet. But the utility of the CeC has been limited due to lack of local content. This gave birth to the e-Knowledge Public Domain (eKPD) project. This project aims to extend the use of CeC from simply a means to access information to the CeC as (local) knowledge production centers. The strategy is to develop appropriate ICT skills in communities to enable community members to create relevant digital (multimedia) content. Through the eKPD, communities would be able to express themselves in the new medium and provide for their own information needs. As its first activity, eKPD project worked with the residents of Payatas – a poor community in Quezon City, to help address their health information needs.

"Through this project, we realized that even people like us can make digital materials like these through computers. We thought that only those who were educated and had computers at home are capable of being involved in such projects."

Leah B. Gunsay, Payatas Development Team Member formerly an out-of-school youth and now employed as an encoder

Challenge	• **Educate the residents.** Train community members with tools to develop content and sustain knowledge creation through information and communication technology (ICT). • **Deliver vital information to the community.** Give the residents of poor communities practical health information to supplement the meager health facilities provided by government.
Solution	• **Utilize free and open source software solution.** Build the community competency on basic web authoring, image manipulation and animation with FOSS applications such as Open Office Impress, NVU and GIMP. • **Use a multi-stakeholder approach.** Involve community members, NGOs, relevant government agencies and other interested parties in developing solutions that communities need. • **Use mature technology.** Deploy servers and PCs running Intel® architecture to host localized content for the community.

CICT Chairman Ramon Sales, Intel World Ahead's John Davies, Quezon City Mayor Sonny Belmonte, UNACOM Chair Ambassador Preciosa Soliven, Intel Microelectronics Country Manager Ricky Banaag signing the eKPD MOU.

Assessing the Situation

Located at the northeastern part of Quezon City, Barangay Payatas is one of the most publicized communities in the Philippines. Since the mid-1980s, the existing landfill attracted scavengers to settle down, eventually creating a densely-populated community.

The residents of the 15-hectare (150,000 square meters) Payatas dump are impoverished and live in informal settlements. Most of its people constantly move around, having to scavenge from one garbage dump to another. They collect recyclable scraps such as paper, cans, glass bottles and plastics and sell them to put food on their tables. Poorly educated, the members of the Payatas community often have low levels of literacy.

Members of the Payatas community are prone to food- and water-borne diseases due to poor hygiene and sanitation. The crowded environment poses a higher risk for an epidemic to break out. Many of them do not have sufficient knowledge about the health risks involved in living in close vicinity to a dump site.

The Philippine government recognized the scarcity of technological facilities for underprivileged communities, such as Payatas. This prodded the Commission on Information and Communications Technology (CICT) to choose the site as the location for its only Community e-Center (CeC) in Metro Manila. The CeC is part of the CICT efforts to bridge the digital divide by providing Internet access centers to marginalized communities. The CeC offers Internet services, printing and sending of greeting cards, telegraph, and electronic money transfer. The facility is equipped with an Intel Pentium 4 server, three Intel Pentium 4 host computers, printers and a scanner.

CICT saw the potential of the CeC as a community knowledge production center – where the communities will not only access information but also produce knowledge relevant to their needs. In as much as health and hygiene are critical issues in Payatas, CICT with its partners, decided to prioritize the development of health-related content. With this move, CICT envisions the CeC as the launching pad to educate the Payatas community with basic health information as well as to produce the multimedia educational material.

Delivering the Solution

To address the information needs of underprivileged communities like Payatas, CICT launched the e-Knowledge Public Domain (eKPD) Project in close collaboration with UNESCO National Commission (UNACOM) of the Philippines the Quezon City government, and Intel Microelectronics (Philippines). Also participating in the project are ideacorp – as Intel (Philippines) NGO partner and the Asian Institute of Journalism and Communication – which serves as UNACOM Secretariat.

The eKPD Project aims to engage the community in creating, developing and exchanging information using digital tools. This is achievable by imparting to the community the ICT skills and knowledge essential to develop their own content.

"The eKPD Project shows how public-private partnership concretely and effectively address the information needs of a community by transforming its members from mere consumers of information to producers of knowledge."

Carlo A. Subido
Business Solutions Manager
Customer Solutions Group
Intel Microelectronics Philippines, Inc.

Key Technologies

Intel®-based architecture
- Intel Pentium 4 server
- Intel Pentium 4 end-user PCs

Open source software
- Open Office, specifically Impress
- Inkscape
- Xara Extreme
- GIMP
- nVU

Integral Answers

·A government agency, an International Organization, a technology company, an educational institution and an NGO collaborated to train community members with ICT skills to sustain continuous content development.

· Armed with open source software education, Payatas residents build relevant content for their community.

·Intel delivered Pentium 4 technology platforms to host the public knowledge domain

eKPD is an illustration of how public-private partnerships work. UNESCO/AIJC and Intel/ideacorp mobilized the community and conducted consultation workshops. While CICT, UNESCO/AIJC, and Intel/ideacorp designed the training program with the trainor - a professor from the University of the Philippines College of Fine Arts. The training program was conducted at the CICT's Digital Media Arts Laboratory.

Jumpstarting the eKPD project in Payatas was the creation of the Payatas Development Team composed of six community health workers, and 13 out-of-school youths of Payatas. The team spent eight hours a day in the 28-day training-workshop. The out-of-school youths were selected by CICT through the Computer and Internet Literacy Course held two weeks prior to the training.

The objective of the training is to prepare the team to produce computer-based multimedia health modules to educate community members on pneumonia, tuberculosis, worm infections and diarrhea — among the top health concerns in the area

Free and open source software (FOSS) such as Open Office Impress, Inkscape, Xara Extreme, GIMP and nVU were used in the training and in the development of the health content. FOSS cuts the cost of renewing licenses, ensuring a sustainable content development project that the community can maintain.

The training helped the team gain competencies in basic public health research and storyboarding. The team also learned fundamental ICT skills such as image manipulation and generation, animation and basic web authoring with the use of the open source software in the CeCs. The course merged lecture and hands-on exercises for the members of the team. This paved the way for a step-by-step mentoring on the process of health information modules development.

During the training, weekly consultations with

e-Learning and multimedia content experts were held to critique and comment on the output of the team. The training also involved regular consultations with the health center doctor in Barangay Payatas to validate the content of the modules.

The Payatas Development Team completed all four health education modules which were presented to the eKPD project partners and community leaders. The presentations inform the user about the nature of the disease, symptoms, practical information on how to prevent illnesses and maintain wellness, and the available medicine and services they could use in the community health centers.

Health workers can now conduct effective health education sessions to the community, thanks to the modules created by the Payatas Core Development team. Educating a crowd of up to 60 people is now easy and effective with the use of simple 15-minute multimedia presentations.

Mrs. Gloria Daquila, a 60-year old community health volunteer worker and a Payatas Development Team member saw the benefits of such content for their work.

"This is very important for us BHWs (barangay health workers). We initially hesitated to be part of this project because we didn't know anything about computers. I was afraid to hold a mouse. But what we learned from the training is very important to us. We learned to research, type, save and delete. We can now share with our co-members in the barangay lessons about health in a way that is fast and easy to understand. We will bring these materials with us so that we could teach the barangay members how to avoid and to treat the diseases we were able to study during the course."

The Payatas CeC, which is hosting the health multimedia modules that were developed by the Payatas Core Development Team, is equipped with an Intel Pentium 4 server, three Intel Pentium 4 host computers, printers and a scanner. As a number of community members already posses the skills to create multimedia content, it is expected that the Payatas CeC would also serve as the content development center for health and other significant concerns of the community.

To sustain the future and long-term objectives of the e-KPD Project, Intel (Philippines) and ideacorp – an independent, non-profit organization devoted to ICT4D — are working on the Community Knowledge Commons (CKC) Portal. The portal will serve as a repository of community-created content not only about health but also on topics such as education, agriculture and small business.

"Community-based content development is empowerment. It is equipping members of the community with the tools that they need to express themselves with this new technology."

Dr. Emmanuel Lallana former CICT Commissioner and current Chief Executive, ideacorp

Aiming to make all content accessible to communities, the CKC Portal will organize and categorize available content to make searching easier for communities. An inventory of content, the CKC Portal will highlight crucial information for the community that still needs to be developed. The materials in the CKC Portal will provide much needed community-created content that can be accessed through the CeCs and other telecenters in the Philippines and other countries.

The CKC Portal is being developed by ideacorp using Intel Platform and FOSS applications.

With the CKC Portal, Intel and ideacorp intend to create an online community of community-based content creators. This will encourage discussion and sharing of information to enhance content development among communities. In the future, the project will bring more people together to join forces in support of similar initiatives.

The eKPD Project fills the void between the poverty-stricken people of the Payatas community, and the vital information they need to help them in their daily lives. By equipping its people with the right tools and training, eKPD aspires to nurture a community of content developers in Barangay Payatas.

With the success of the Payatas project, eKPD partners seek to now work with other communities to develop content related to education, agriculture and small business. As in Payatas, the eKPD partners will work with specific community members in order to empower them to create compelling and relevant content.

Developing local content will make CeC more useful to communities.   With access to relevant information, people will learn practical skills that they need in their daily lives. This can dramatically improve the livelihood, education and social needs of marginalized communities.

Equally important, through user generated content, CeCs also become a mechanism for local communities to express themselves to other communities in the nation and to the world.

Return on Investment

· Health workers of Payatas can efficiently educate residents with practical health information with the use of multimedia presentations developed through the project.

· Community e-Center was utilized by the Payatas community to access basic and relevant health information for practical use.

· Selected Payatas residents gain technology skills such as basic web authoring, image manipulation and animation to develop content for their community

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