



Case Study

Intel-powered classmate PC

Non-governmental Organization

Mobile Working



“My cancer-stricken 60-year-old father wanted to see my sister who now lives in Canada. Thanks to the Info Lady, he could see and talk to her through a video chat. His joy was beyond description.”

Golam Mostofa Azad,
Village Businessman

Info Ladies Make the Connection

Through an innovative program developed by D.Net*, Bangladeshi women deliver advanced technology and communication services to remote villages.

The village of Shaghata in the Bangladeshi district of Gaibandha is so remote it takes two hours to reach from the nearest interdistrict highway. Access to modern communications and livelihood information such as agricultural, medical and market information is particularly valuable in remote villages like Shaghata, but until recently poverty and geological instability made it difficult for villagers to connect with the outside world.

Now, thanks to the “Info Lady” program and Intel technology, Shaghata has overcome its challenges and become the showcase of an entrepreneurship model for remote areas – an efficient and sustainable model that could be replicated in many other emerging countries.

Challenge

- Small, remote villages need telephone and Internet access to boost social services and their socioeconomic well-being.
- Villages lack ICT infrastructure, which is difficult to develop due to obstacles including frequent power outages, natural calamities, pervasive poverty and a low literacy rate.

Solution

- Empower educated women with skills and equipment to connect villagers to the outside world via phone and Internet.
- Equip Info Ladies with Intel-powered classmate PCs, mobile phones and digital cameras.
- Deliver information and technology on-site, utilizing established telecenters as support bases.

Result

- Remote villages like Shaghata gain easier and less costly access to telecommunications and Internet services.
 - Villagers improve access to health care and education, and increase opportunities to enhance their socioeconomic well-being.
 - Local women earn a decent living while providing important resources and services to their communities.
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Info Ladies deliver much-needed information and resources



The Challenge: Connecting remote villages

Like the residents of other remote villages around the world, the people of Shaghata lacked many modern conveniences, including telephones and Internet connections. The village is heavily dependent on farming, and farmers often struggled to access information and services that could benefit their businesses. Without local doctors or a village hospital, villagers also had limited access to health-related advice and medical services.

To improve their businesses and their quality of life, Shaghata's residents needed easy, low-cost access to the Internet and telecommunication services.

Spotlight: Shaghata, Bangladesh

- Shaghata is a small village located in the Gaibandha district of Northeast Bangladesh. Close to the Indian border, Shaghata is almost 300 km. northwest of Dhaka, Bangladesh's capital and the hub of the country's IT infrastructure.
- According to a 2008 census, more than 24,000 people reside in Shaghata.
- In part due to almost annual floods and drought, per-capita income in Shaghata is lower than the national average of USD 49 per month.¹

¹Source: Bangladesh Bureau of Statistics

The Solution: Info Ladies

Info Ladies are women who receive specialized training and technology, and then travel to remote areas to personally connect villagers to the information and resources they need.

The Info Lady solution evolved from the original "Mobile Lady" concept developed by D.Net (Development Research Network) Bangladesh, a nonprofit research organization that champions the use of ICT for the economic development of Bangladesh. Mobile Ladies carry mobile phones to connect villagers. The Info Lady is a natural extension of the Mobile Lady concept, providing not only a mobile phone but also a computer, digital camera and 3G Internet connections.

By delivering technology to villagers through a trained information worker, the Info Lady business model overcomes problems such as computer illiteracy and high implementation costs that are associated with providing computers directly to villagers. Women were chosen for the Info Lady and Mobile Lady projects in part because they have freer access to households in conservative Muslim societies.

Equipment

Each Info Lady covers, on average, 15 villages with a total population of about 130,000. In a bag on their bicycles, the Info Ladies carry an Intel-powered classmate PC, a mobile phone with Internet connectivity, a digital camera and a headphone set. Telecenters run by local NGOs serve as the base of operations for the Info Ladies, where they receive training and store equipment. The telecenters also provide Internet access from a fixed location, which



"My daughter and I were ill on two different occasions, and both times, the Info Lady connected us to the help desk in Dhaka, which recommended medicines that worked for us. This saved us time and money as the nearest doctor is located very far away."

Lalmal Begum,
Housewife



“One of my jackfruit trees was diseased and dying. The Info Lady helped me contact an expert at the help desk in Dhaka who recommended medicines for the tree. My tree is healing now. The service is worth the small price, as I would have lost income from the tree not bearing fruits.”

Mohammed Joynal Abedin,
Farmer

is extended to villagers through the Info Ladies and a local wireless Internet service provider.

Because Info Ladies spend most of their working days outdoors, they require lightweight equipment bags and PCs that can withstand challenging conditions. These were two of the key reasons for choosing the Intel-powered classmate PC. The classmate PC is lightweight, has a sturdy design and long battery life, and features an energy-efficient Intel® Atom™ processor, making it ideally suited for long hours in the field.

Services

Info Ladies have become highly sought-after individuals in villages like Shaghata, providing valuable services including:

- **Livelihood information and knowledge:** Villagers can access livelihood information such as agricultural advice and health-related information via phone access to the *Teletathya* Help Line (a livelihood information service provider) or through the Intel-powered classmate PC, which offers an offline version of livelihood content developed in the local language.

- **Traditional commercial phone:**

Mobile phones provide common commercial phone services.

- **International and local voice call through instant messenger:**

Local and international calls can be made through the Internet and instant messaging.

- **Photography:** Photos can be taken with a digital camera and printed at the nearest telecenter, enabling villagers to complete applications for jobs, schools, and loans.

- **Internet-based information:** Villagers can access many important services through 3G Internet connections; for instance, they can complete applications for the U.S.A. Diversity Visa Program, download government forms, look up exam results, and search and apply for jobs.

- **Video and animation:** For a small fee, villagers can watch videos and animated features, including educational cartoons for school children, and short documentaries on issues including health, education, and human rights.

Key Technologies

- Intel-powered classmate PCs for their light weight, robustness, and long battery life
- EDGE/GPRS modem for Internet connectivity
- Headphones for messenger calls
- Integrated Webcam for video calls through messengers
- Digital camera
- Local language content
- Mobile phone

Integrated Solutions

- D.Net provides overall management, including:
 - Managing the help line
 - Managing funds, selection, and training
 - Empowering the Info Ladies
- Info Ladies are selected from local educated women, and then trained and deployed at their respective localities.

The villagers enjoy having all these services delivered to their doorsteps, which saves them the time and expense of traveling. The Info Ladies' services are comparatively inexpensive: a five-minute Skype* call costs USD 0.07, mobile calls cost USD 0.04 per minute, and a photo print costs USD 0.11. Phone calls made through Info Ladies cost far less than most alternatives; for instance, international calls from most fixed or mobile phones to Middle Eastern countries generally cost about USD 0.35 per minute.

Services from the D.Net help desk are provided free to Info Ladies, and after paying the mobile phone operator and other service providers, Info Ladies keep the remainder as profit. With an average of 15 customers per day, Info Ladies earn about USD 2.75 every working day, or approximately USD 82 per month.

Moving Forward: An empowering business model

With Info Ladies bringing information and resources directly to villagers, keeping in touch with the outside world has become less expensive and more convenient, which has helped increase Shaghata's social and economic development.

Within months of its launch under the Abolombon II project operated with support of the Manusher Jonno Foundation (www.manusher.org), the Info Lady project generated so much enthusiasm that D.Net plans to expand the pilot project and add 20 additional Info Ladies across the country. In the future, the organization plans to roll out 1,000 Info Ladies across Bangladesh.

The Info Lady project combines a comprehensive and responsive technology platform with a human-friendly interface. It has proven to be an effective and sustainable business model – empowering not only the people it is designed to serve, but also the women who deliver the services.

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

Classmate PC Portal
www.classmatepc.com

