

## Workshop Presentation

Topic: Information Technology and Volunteering

### IT Bridge: Connecting Hearing Impaired Students to the World

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#### Abstract

As estimated in 2003, among the some 300 hearing impaired students in Hong Kong, half of them did not have any computers at home which might have seriously hindered them from communicating with the outside world. To provide these students with an effective communication channel, the Hong Kong Institution of Engineers and the Hong Kong Association for Computer Education have jointly organized the project named "IT Bridge: Connecting Hearing Impaired Students to the World". The project is implemented in three phases: (1) Collection, refurbishment and distribution of computers to the hearing impaired student; (2) Care program connecting the students to the volunteers and the community; and (3) Program evaluation. The project is designed not only to help the hearing impaired students, but also to serve as an example to encourage more engineers to serve the community with their professional knowledge.

#### Background

During the outbreak of SARS in 2003, schools in Hong Kong were closed to help prevent the further spread of the disease. While majority of the students could continue to learn through the internet and communicate with their relatives and friends through telephone or e-mails easily, it was not realized until then that hearing impaired students are very isolated and can hardly communicate with their teachers and classmates without computers. It was estimated that about half of the students studying in deaf schools in Hong Kong did not have any computers at home because of their families' financial situation. Due to the lacking of a suitable communication means, these hearing impaired students were deprived of the opportunities to learn and communicate with the community.

In view of the needs of these students, the IT Division and Young Member Committee of the Hong Kong Institution of Engineers (HKIE) and the Hong Kong Association for Computer Education (HKACE) have jointly organized the community service project named "IT Bridge: Connecting Hearing Impaired Students to the World" to enhance communications between the hearing impaired students and the community from outside of schools. The program would also help to raise the public awareness about the problems and needs of the hearing impaired.

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## Objectives

The key objectives of the program are –

- (a) To provide an effective communication channel for the hearing impaired students to learn from home and to improve the hearing impaired students' language proficiencies; and
- (b) To establish a caring program between the hearing impaired students and volunteers via the Internet by e-mails and specialized chat room facilities, and through organizing interactive projects.

## Target Participants

In Hong Kong, there are about 300 hearing impaired students who receive education in one of the following local deaf schools –

- (a) Lutheran School for The Deaf;
- (b) Hong Kong School for The Deaf (renamed as Chun Tok School in 2004);
- (c) Victoria Park School for The Deaf; and
- (d) Caritas Magdalene School for The Deaf.

In 2003, it was estimated that there were altogether some 150 students who could not afford to purchase a computer due to financial problems of their families. Our target is to help all of these students.

## Three-phased Project

The project is implemented in three major phases.

### Phase I - Collection, refurbishment and distribution of computers

In Phase I of the project, computers would be collected from various donors from business sector and government sector. A team of volunteers, recruited from HKIE, HKACE and the Hong Kong Police IT Society, would check and refurbish the computers, and deliver and set them up at the homes of the hearing impaired students. To set up an effective communication as well as learning channel for these hearing impaired students, free broadband connections would also be provided. This phase would be implemented in the 2<sup>nd</sup> half of 2004.

### Phase II - Care Program

Phase II is a Care Program whereby students can have direct communications with the volunteers and the outside world through a variety of interactive activities. The objectives are to establish a communication program between the hearing impaired students, young engineers and policemen; promote interaction of the hearing impaired students with the community; and provide support to the hearing impaired students on how to use the Internet, e-mails etc., if necessary.

A series of activities including communicating at internet forum, school/home visits, attending workshops etc. would be organized to bridge the world of young engineers, young policemen and the hearing impaired students. In particular, some of the volunteers would also learn the sign language to facilitate communications with the students. This phase would be implemented right after phase 1 and last for 12 months.

### Phase III - Program Evaluation

Upon completion of Phase I and II, the organizers would evaluate the success of the project. A lecturer from the Hong Kong Institute of Education has been invited to conduct the evaluation. Feedbacks from the hearing impaired students will be collected and assessments from the participating schools on improvements made by the hearing impaired students on their language proficiencies will be conducted. The data collected will be analysed and a report be prepared.

### Preliminary Evaluation

#### 1. The need

About 70 computers together with Internet access were delivered to students' home during August to December of 2004. Schools, parents and students welcome this programme. Most of the students are very excited. In some families, the computer is also used by the hearing siblings of the hearing impaired student.

The actual number of computers delivered is substantially below the estimated number. The reasons are as follow:

- Due to the government's policy of integrating the handicapped students into normal school, the number of students in deaf schools is decreasing.
- Some parents tried very hard to save money and buy a computer for the student. Therefore the percentage of students having computers at home is higher in late 2004 than in early 2003.
- A few parents don't want to have computer at home because they are afraid they don't know how to use it.

This project also facilitates schools to design computer-based learning activities. Schools can now require the students to do their homework using computers and/or Internet search.

#### 2. Organizers and partners

The organizers, namely the IT Division and Young Member Committee of the Hong Kong Institution of Engineers (HKIE) and the Hong Kong Association for Computer Education (HKACE), demonstrate a good combinations and partnership. The IT Division of HKIE is responsible mainly on the technical side. The Young Member Committee of HKIE responsible for the Care Programme. The HKACE is responsible in liaising with the deaf schools and students.

The Hong Kong Police IT Society also co-organise this project. They are very helpful in recruiting volunteers.

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## Conclusion

As its name reveals, the major objective of the project is to serve as a bridge to connect hearing impaired students to the outside world making use of information technology. While this project has provided the students with one of the most effective channels for community with the society, the project also serves as a good example to encourage more engineers and other professionals to serve the community using their professional knowledge or skills.