# TITLE- 'INNOVATION FOR WOMEN AND GIRLS' EMPOWERMENT THROUGH TECHNOLOGY ' - HOW NEW USES FOR TECHNOLOGY CAN IMPROVE THEIR SURVIVAL AND DEVELOPMENT.

## 1. VIOLENCE AGAINST WOMEN AND GIRLS AND HIV:

### Open Street Map - SMS mapping tool to prevent violence against women

UNICEF NYHQ in coordination with UNICEF Kenya and Open Street Map is running a pilot program in the slums of Kibera aimed at empowering young people to identify and map risks and vulnerabilities related to their health and protection in the slums of Kibera. The ensuing community map will be used to advocate for better services with duty-bearers. Children and young people will also be trained to produce radio pieces, photos and footage underpinning their findings and adding personal narratives. The project is generating quantitative and qualitative actionable data for advocacy and will provide a model for replication in other countries combining new technologies with grassroots action.



### Innovation for an HIV-free generation: The Mother-Baby Pack

Every day, more than 1,000 infants worldwide are infected with HIV through mother-to-child transmission during pregnancy, labour and delivery, or breastfeeding. Without medical intervention, at least half of these babies will die before their second birthday. UNICEF, in partnership with WHO and others, has developed an innovative pack of medicines to prevent mother-to-child HIV transmission (PMTCT). The Mother-Baby Pack contains all of the antiretroviral drugs and a prophylactic antibiotic, cotrimoxazole, needed to prevent transmission of HIV from a mother to her baby, in a six month supply. This simple yet revolutionary innovation can have a

significant impact on the number of babies born free of HIV. A pregnant woman's first antenatal visit is a vital opportunity to test mothers for HIV and prevent transmission of the virus to their babies. The Mother-Baby Pack builds on this opportunity by making it easy for mothers to start and continue PMTCT from the first visit. And by bundling together a full course of preventive drugs, the pack promotes easier storage, distribution and management -- while reducing the chance of pharmaceutical shortages in clinics.

- One Mother-Baby Pack is expected to cost approximately US\$ 70.00 for medicines and materials
- The launch of the Mother-Baby Pack in Lesotho, Zambia, Cameroon and Kenya will last for 12 months, and is projected to run from July 2010 to June 2011.

## 2. LEARNING TOOLS AND GENDER

#### **Promoting Universal Education Using Mobiles**

Principal Investigator: Matthew Kam, Assistant Professor, Carnegie Mellon University

Given their low costs and increasing ubiquity, even in very poor communities, much has been written about the potential for mobile phones to aid in the delivery of 'anytime, anywhere' education. The MILLEE (Mobile and Immersive Learning for Literacy in Emerging Economies) project at Carnegie Mellon University and the University of California, Berkeley has been examining cellphones for universal education in the last six years, beginning with low-income communities in the urban slums and villages in India. MILLEE is beginning a controlled experiment with 800 rural children in 40 villages in India, with early replication underway in Kenya and China. The project has



received major sponsorship from the MacArthur Foundation, Microsoft, National Science Foundation, Nokia, Qualcomm and Verizon. It has been featured in the press in India, ABC News and a Canadian Broadcasting Corporation television documentary.



MILLEE has been developing and testing mobile phone applications that enable children in the developing world to acquire language literacy in immersive, game-like environments. The goal is to make localized language learning resources more accessible to underprivileged children, including child laborers who cannot attend school regularly, at times and places that are more convenient than schools. Its design methodology is informed by best practices in commercial language learning packages and the traditional village games that rural children play everyday. After more than ten rounds of field studies in the past six years that started with early-stage needs assessments and feasibility

studies, the team has demonstrated significant learning benefits in two semester-length pilot studies. The team has also uncovered cultural aspects of the social fabric around "unsupervised mobile learning" in rural India, including those that converge on issues related to gender empowerment, which has global relevance. For example, the attitudes of rural parents towards their children's education, demonstrate their bias towards making educational opportunities less accessible to girls. Future design plans will address this factor by developing mobile learning applications that are gender sensitive and appeal only to girls and support while supporting their mentoring role.

### The TeacherMate

The TeacherMate System is an affordable and effective handheld computer learning system for the early elementary teacher.

- Delivers differentiated "leveled" instruction for at risk, on level, and advanced students
- Aligns with each school's core curriculum by using the same high frequency words, phonogram word families from the classroom reading series
- Affordable and good for the classroom environment. (\$50 for Inner-city kids project)

The result is a hand-held computer about the size of an iPod that comes with a screen, earphones and eight control buttons. Games invite children to read words on the screen into a built-in microphone. They can listen as the computer reads

the same simple sentence and plays back their own voice reading the sentence. Other games require use of spelling and math skills to win. Called Teachermate, the compact mobile learning tool resembles a handheld game, a device familiar to many young children.

"Children learn every day using hand-held games, but what they learn—how to avoid a monster—has no value," he said. "Here what they learn has value." Grants from the JPMorgan Chase Foundation and the Chicago Community Trust will put the hand-held computers into classrooms in 500 Chicago public elementary schools over the next two years. Pilot programs using the devices are starting in New York City, Detroit, New Orleans, San Antonio, Phoenix and Denver.

They have 2 International Pilot programmes being planned in Republic of Korea and in Rwanda. It is hoped that the rigorous research design and procedure will lead to clear learning outcomes that help investigators determine how mobile interaction, collaboration, and visualization technology plays a role in the behavioral, cognitive, constructivist, and social dimensions of formal and informal mobile learning.



"Our goal is to empower children with 21<sup>st</sup> century education everywhere."

> -Dr. Paul Kim, Chief Technology Officer at Stanford's School of Education

The TeacherMate has potential to give girls both in and out of school, the chance to learn with more flexibility.

"The TeacherMate helps students learn how to work on their own and how to focus without constantly being brought back to task."