Time for TechKobwa

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MSU returns to Rwanda for TechKobwa 2016

A team from Michigan State University will return to Rwanda this summer for TechKobwa 2016, a project to inspire Rwandan women to pursue careers in the information and communications technology (ICT) sectors. Donations are being solicited to expand the impact of this successful program in Rwanda and other developing countries.

Laura Dillon, a professor of computer science and engineering, will again be joined by IBM Distinguished Engineer Louise Hemond-Wilson ('86) and other volunteers to empower Rwandan women to play a key role in their country’s Vision 2020 — a plan to transform an economy dominated by subsistence farming into one driven by information and communications technology.

Among the volunteers going this summer are two MSU students, Panashe Mayangamutse, a sophomore in electrical engineering, and Matthew Rhodes, a sophomore in computer science, along with Flora Kalisa, a software development engineer with Accenture of Belgium. Michelle Slattery, the CEO of Peak Research LLC, is also donating time and resources to evaluate outcomes.

Kobwa, pronounced “Kobga,” is the Kinyarwanda word for girl. The summer residential camps engage female students and their ICT teachers from secondary schools throughout Rwanda in fun, innovative, and ICT-rich activities.

“It is rewarding to see the transformation in both students and teachers over the course of the camp,” Dillon said. “Most have very limited experience with computers or engineering when they arrive. TechKobwa increases their knowledge, understanding, and experiences with computing, engineering, and other STEM concepts,” she explained. “But more importantly, it positively impacts their attitudes toward STEM education and a tech career, increases their
critical thinking and leadership skills, and boosts their self confidence.”

Lessons include basic computer skills, computer programming, photography, computer maintenance and security, and electronics, as well as leadership development, problem-solving skills, and career mentoring.

“The ‘Mission Innovation’ lesson is my favorite,” said Hemond-Wilson, “because it brings together all of the goals of Camp TechKobwa. The girls apply their new skills to solve a real problem.”

Camp TechKobwa is in Kibuye, in the Karongi District of Rwanda, Africa. Summer teacher training begins July 25-July 29. Summer students arrive on July 31 and depart Aug. 6.

Camp TechKobwa Quick Facts:

• Launched in 2013 by Peace Corps volunteers, a weeklong TechKobwa camp has run for three consecutive summers.

• Over 150 females ages 12 – 20 have attended, primarily from secondary schools in rural areas of the country.

• 30 ICT teachers from the same schools as the students have undergone training of trainers at a TechKobwa camp.

• The TechKobwa Project is a partnership between the U.S. Peace Corps, Michigan State University, IBM, the Rwanda Ministry of Youth and ICT, CreationHill, and the Akilah Institute for Women. In 2015, ACM-W and IEEE Computer Society provided additional funding.

Outcomes of TechKobwa 2015:

• Student mastery of subjects was low before the camp (22 percent), but high after the camp (83 percent).
• Student learning outcomes improved significantly in 29 of 36 subjects.

• Teachers came to camp with mastery in about half of the subjects taught, but left with mastery in more than 80 percent.

• 100 percent of teachers said that their ICT skills increased during camp.

• 90 percent of teachers left camp with the knowledge and confidence to teach ICT in clubs and classes.

• 99 percent of all camp participants, including students, teachers, and facilitators, reported that their teamwork skills improved.

“The top three improvements suggested by participants of last summer’s camp involve more — more time, more girls, more camps,” said Slattery.

“We are planning for two yearly camps in Kibuye starting this year,” added Dillon. “And longer term, we hope to offer similar camps in more locations in Rwanda and in other developing countries.”

To donate, visit https://www.givingto.msu.edu/gift and type ‘TechKobwa’ into the box labeled ‘Type here to search for funds.’ Add the TechKobwa Project Fund to your shopping cart and check out. Gifts are tax deductible (501(c)3 status). The shopping cart has a checkbox for corporate matching gifts. For more information, email Techkobwa@egr.msu.edu

**Looking to the future:** This project is helping Rwanda realize its vision to move from an agrarian society to a leader in ICT and entrepreneurship. By empowering Rwandan women, it is ensuring long-term stability of the society. Goals for the next five years include longitudinal assessment of long-term impact and packaging and testing the model for replication in other developing nations. For more information and to contribute, visit http://www.egr.msu.edu/techkobwa.

**Related Website:** Camp TechKobwa
Communications contact: Patricia Mroczek
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