Agricultural, health education goes global via cellphone animations

December 14 2012

Cell phone animations and videos help those in the developing world address some of the most challenging issues they face. Credit: Scientific Animations Without Borders

They're watching them in Benin, Brazil, Burkina Faso, Ethiopia, India and Niger. They're learning how to stop the spread of dengue, malaria, tuberculosis, cholera and food-related illness. They're learning how to protect their crops from insect damage or post-harvest losses. And they're coming up with new ideas for similar lessons to share with their neighbors or others around the world.

Many people in developing countries have cellphones that allow them to watch videos and play interactive games. Now agricultural researchers and health educators are using this technology to help those in the

developing world address some of the most challenging issues they face—and at a fraction of the cost of taditional development aid education. The initiative, Scientific Animations Without Borders (SAWBO), delivers educational materials in the form of narrated, animated videos to a global audience, and – perhaps most remarkably – hears back from that audience on ways it can improve its message or add to its repertoire of videos.

Organized by faculty and staff members at the University of Illinois working in collaboration with the Center for African Studies as well as international students and animators, SAWBO offers videos on more than a dozen subjects of importance to global health and agriculture, and the list is growing.

"Our focus is providing new educational content as fast as possible dealing with world problems," said Illinois entomology professor Barry Pittendrigh, who founded SAWBO with Julia Bello-Bravo, an assistant director of Illinois Strategic International Partnerships in the office of International Programs and Studies; and Francisco Seufferheld, the SAWBO program coordinator in the department of entomology.

The animations feature characters of universal appeal, demonstrating, for example, how to purify water to stop the spread of cholera, how to use bed nets to prevent mosquito-borne infections, how to kill the insects attacking their crops or to transport grain without spilling it.

A primary focus is the prevention of "post-harvest losses," the waste of food crops as a result of insect infestations, spillage or spoilage. New videos, on how to avoid losing grain during bag or bulk transport, for example, are funded through the ADM Institute for the Prevention of Postharvest Loss at Illinois.

"It is generally believed that about one-third of the world's agricultural

production doesn't reach its intended use because of food losses and waste along the food supply chain," said Steve Sonka, the director of the Institute for the Prevention of Postharvest Loss and a professor emeritus of agricultural strategy at Illinois. "Lack of effective training capabilities in developing nations contributes to that loss, and we believe that the SAWBO approach has tremendous promise in providing such training where it can be effectively employed."

Future videos will address other threats to agricultural products, showing people, for example, how to make and use clay vessels that extend the shelf life of fruits, vegetables and other perishable goods. And health-related videos tackle the spread of infectious diseases with easy-to-follow, step-by-step explanations and instructions.

"There are people who don't know that malaria is produced by the mosquito bite," Bello-Bravo said. "The videos teach them this basic fact, as well as the different measures they can take to prevent malaria. Getting this knowledge out to people who might otherwise not have access to it can really have a positive impact on their lives."

New subject matter will include lessons on how to use readily available materials to build sustainable devices, such as a solar oven to cook without wood.

The animations are done in a variety of styles, from realistic, three-dimensional modeling of people, objects and insects to simple 2-D cartoons, Seufferheld said. Some students in media studies and fine arts at Illinois have contributed their talents to the effort. Other videos are produced by professional animators.

The team also is branching out to develop applications for cellphones and tablet computers. Their first, an interactive app on what to do if you think you have been exposed to tuberculosis, offers an overview of how

a doctor will test for the disease and – if tests come back positive – how the doctor will treat it.

International students at Illinois provide many of the narrations. SAWBO currently has videos in Yoruba and Igbo (Nigeria); Castilian Spanish; Wolof (Senegal); French (Haiti, Benin and elsewhere); English with a U.S., Indian or Nigerian accent; Amharic (Ethiopia); pidgin (Ethiopia and Nigeria); and Hindi, Tamil and Kannada (India).

The team works to ensure that every video is scientifically accurate, Pittendrigh said, using only information that has been proven in field trials or scientific studies. For example, most of the health and safety recommendations are based on those of the World Health Organization, he said.

The distribution of videos also is a critical issue, Pittendrigh said.

"Our goal is to be a centralized place where people can get materials and deploy them locally," he said. "We also have developed an online system that allows local educators to download and use the videos in the deployment strategies that they think are best in their local environment."

Provided by University of Illinois at Urbana-Champaign

Citation: Agricultural, health education goes global via cellphone animations (2012, December 14) retrieved 19 April 2024 from https://phys.org/news/2012-12-agricultural-health-global-cellphone-animations.html