Empowering Daily Success

by Hannah Gallant

IN SS 2018, eight students in the Business Systems Analysis & Design (INFS318) course taught by Armand Poblete, instructor of information systems, designed a financial app for cell phones as their semester-long project. Romain Kenfack, country director for the Burkina Faso office of Tanager International, had contacted Kim Pichot, the Andrews Enactus faculty sponsor, and suggested they collaborate to develop an app that he envisioned.

Armand says, “When Kim asked me if we’d like to create an app for Tanager, I thought a humanitarian project seemed like a great new challenge that offered us an opportunity to explore the not-for-profit world.”

The INFS318 students and a student developer from the Junior IT program, Daniel Arn, worked alongside the Andrews University chapter of Enactus, an international organization that brings together student, academic and
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business leaders in community projects, and Tanager, international nonprofit and ACĐI/VOCA a liate, to create a simplified budgeting app for the approximately 30,000 women participating in Tanager’s SELEVER program.

The SELEVER program is a five-year program designed to improve the nutritional status of women and children in rural Burkina Faso by strengthening women’s economic empowerment through increased poultry production. In fact, SELEVER itself is a long French acronym meaning “to raise up.” Shannon Huang, one of the students in the INFS318 class and Enactus’ new project lead for the support and future maintenance of the app, explains how this meaning describes the goal of the project: “to raise the people up to be known and know themselves and to be self-sufficient.”

While there is a significant market for local poultry in Burkina Faso, many smallholder poultry farms are not equipped to respond to the rising demand. The country also struggles with high malnutrition and frequent illness among children, while women, the primary caregivers, are constrained by social and economic norms that limit their access to resources and income opportunities. This app is just one of the ways that SELEVER hopes to facilitate change in the poultry sector—by helping female poultry producers access key services.

Also due to social and economic norms, most of the women who would use this app are unable to read. For the INFS318 students, developing an app for these women who could neither read nor write became one of the greatest challenges. “The creation of an app with audio and visual cues for illiterate women has added an additional challenge, yet the reward of seeing how the women benefit makes our time well worth it,” says Armand.

Throughout the semester the eight students worked on the app’s specifications, cost/benefit analysis, user interface design and behavior. The entire project took a little over three months to complete with approximately two months devoted to specifications gathering, designing and testing/implementation strategies and six weeks to development.

Despite the challenges this project presented, it taught the students many things including how tech-based projects are started, defined, assessed, designed, managed, tested and implemented. In addition to the coursework, students also learned how to interface with clients, developers, designers and stakeholders—all of whom are key to the successful completion of any project.

“I think the best teacher is experience, and this project opened their eyes to a real, complex field of implementing new technology, working closely with clients and working within the policies as defined by our stakeholders,” Armand explains. “A project like this breathes life into a Systems Analysis & Design textbook. The students are not limited to just the concepts, theories and models, but they learn how to apply all this material into a living, breathing project.”

During spring break in March 2019, three of the students from INFS318, including Raymond Kashingaki, Shannon Huang and Sarah Watson, traveled to Burkina Faso to survey potential users about the app. There were eight people who went on the trip overall: Raymond Kashingaki; Kim Pichot, associate professor of marketing and Enactus sponsor; Alain Pichot; Valerie Pichot; Shannon Huang; Sarah Watson; and Armand and Smruti Poblete.

The Andrews team spent their first day in Burkina Faso at Ouagadougou. They had the chance to visit a bronze crafter who used honey wax to create sculptures. After creating them with the wax, the crafter would cover them in termite mound clay. Once the clay was dried the wax would be melted off, and the clay was used as a mold to pour the bronze into. Even though these molds could only be used once, it was a very unique process to watch.

Throughout the trip, the team used Ouagadougou as their home base—they also traveled to three villages: Semaga, Tita
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and Vily-Bongo. In Semaga, the team spent an afternoon talking to villagers under the shade of a mango tree. They asked questions about how the villagers lived, budgeted and used their money. Some individuals had phones, but most of them did not.

At one point, the team visited a poultry farmer who had purchased a rooster and a hen two years prior with the help of Tanager. Since then she has doubled the amount of chickens sold each year and anticipates even greater success in the coming year.

While there, the team also had the unique opportunity to be part of an impromptu celebration with the local women. “We joined along and ended up singing all kinds of different songs like ‘Father Abraham.’ It was amazing,” Shannon describes.

Valerie Pichot, documentary film major who is filming the progress of the project, agrees. “The people in the villages were very hospitable and friendly. Whenever we arrived they offered us seats in the shade and a cup of water or juice. They were more than willing to spend a few hours talking with us, even though it meant that they would be behind on their daily activities. When we finished meeting with the villagers in Semaga, the women began to sing for us. We ended up singing a few songs back to them and playing a simpler version of Simon Says. That was my favorite moment of the entire trip because we were finally able to connect with them despite the language barrier.”

“Joy does not need a language,” adds Kim. In the second village, Vily-Bongo, the team met with more women and invited them to test the app. “These women were curious and bright and eager to learn, and interacting with them has been so rewarding to me. They had a say and they knew what to say,” Shannon notes.

After conversations with the villagers, the team decided it would be best to redevelop the app for tablets rather than cell phones. A tablet could be assigned to an entire group of women, using the group accountability structure that is already built into West African culture and widely used by nonprofits effecting social change. These tablets would be funded by a microcredit loan company, and their employees would collect data from the tablets when they make their regular visits each month to the lending circles. The data would then be uploaded for Tanager and the Andrews team to access. Overall, using tablets proved to be more efficient given the low infrastructure.

In the third village, Tita, there was an existing business system of approximately five different groups who worked with poultry. Because of this, the groups were more closed to dialogue due to competition between the groups. Even so, several women tested the app successfully.

In addition to being engaged with the poultry market, the women in the three villages are frequently active in mini businesses. One woman in Vily-Bongo was growing peppers to make condiments, another made jewelry and another separated out grain to sell.

As a result of this, when they returned from their trip, the Andrews team further developed the app to track various types of expenses, not ones limited to the poultry market. The interface also includes ways to track nutritional/dietary consumption and contains an educational section where SELEVER will be able to share short videos about gender training, nutrition, marketing and finance.

In August, a smaller team of five from Andrews returned to Burkina Faso and introduced the new tablets and app to nine groups of women who owned poultry. The Andrews team trained employees from Tanager and the microcredit loan company, as well, and observed as the field personnel conducted the training in Vily-Bongo.

The discussion among the poultry business owners included the amount paid for chickens, the selling amount, how many chickens were eaten, how many died, and the amount of money made per chicken. Fatimata Boro, a microcredit officer and trainer, states, “During the training, the participants were arguing about price commodities rather than the actual interaction with the app. This was so encouraging to see they were comfortable using the app.”

Overall, the purpose of the app is to empower the women in Burkina Faso in their daily business activities—the hope is for continued work with both SELEVER and the microcredit loan organization to implement this app with 100 groups in December 2019.

“This project has given a number of students, faculty and staff at Andrews University an opportunity to dig deep and give of ourselves, sacrificing our wellbeing and working harder than we thought we could, to create a scalable project that has the potential to impact thousands of women in the developing world,” says Kim. “We are redefining what it means when we say ‘World Changers Made Here.’”

The team from Andrews University, left to right: Raymond Kashangaki, Armand Poblete, Alain Pichot, Smruti Poblete, Shannon Huang, Valerie Pichot, Kim Pichot, Sarah Watson