

Back to the Future in 2019 – Santa Lucia

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This trip reminded me of the comic sci fi movie, “Back to the Future.” To be clear, our ride was the usual four-wheel drive truck bouncing over rocky roads – not the iconic sports car pictured to the right.

Still, in many ways was a trip back in time – to Santa Lucia.



My usual semiannual trip to Honduras was originally scheduled for September 4-13. However, I got to stay another day courtesy of early Independence Day celebrations that featured wide-spread road closures. I had the usual full-to-overflowing agenda that covered many aldeas. This included a Lego Robotics tournament; visits to lots of schools; and long but productive meetings with parents and local government officials. But the focus of this report will be the general area around Santa Lucia. This is where we began almost 30 years ago. But more than anything, this trip brought back the value of our working “shoulder to shoulder” with some noble people trying to help their community.

This story actually starts at one of the first visits of Dr. Jeff Heck and other University of Cincinnati physicians to Santa Lucia. They formed a local committee to guide their work. This “comite” was composed of the mayor and several civic minded informal leaders in the community. One of these was Luis Hernan Pineda. Profe Luis was then a principal of a local school. I had met him many years ago, but lost track of him since most of my work these days is in other communities, notably Camasca.

Fast forward to two year ago when Grace Twohig was in charge of our CREE digital curriculum. She crossed paths with Profe Luis (pictured left) as she introduced our digital curriculum technology into Santa Lucia colegio. He was now District Director for Education in the Santa Lucia municipality.



A year later, I was visiting Santa Lucia to evaluate the progress the progress and deliver a Lego robotics kit to the colegio. Our team was invited to visit Profe Luis in his home for refreshments and further discussion.

Once there, he explained the two problems on his mind. One, there were a large number of young people now out of primary school with nothing much to do except possibly get into

trouble. He identified a little school in las Marias where the children were very poor. The two teachers while dedicated were overwhelmed with the challenge of teaching 74 kids in 6 grades.

His plan for the unguided youth of Santa Lucia was a Santa Lucia Amigos Club. His agenda for the Amigos was very ambitious and he wanted our help. Luis believed that the robotics program might provide an avenue of productive engagement for the young people otherwise without opportunity. The Oscar Mejia Arellano Escuela in las Marias was in fact his former school. He assured us that these teachers would work very hard to make the technology a success. Grace had wanted to get some experience with a primary school besides our bilingual school in Camasca. So ultimately we agreed to support both of Profe Luis' requests.

Last year, we held a small robotics competition in Camasca. We had four teams competing. Our objective was to create the model and gradually expand it to cover all of our seven municipality service area. This year, Santa Lucia hosted the competition at their colegio. We had eight teams from five different municipalities. It was well attended by students, parents, teachers, school administrators, and several mayors. San Marcos even rented a bus to bring all their team members and supporters! It was quite an event - see from the picture below.



We had several rounds of competition and a play off to decide between second and third place. In the end Santa Lucia colegio won first place, San Marcos won second place, and the rag tag group of school dropouts from Profe Lius' Amigos won third place. Profe Luis was beaming. Next year the event will be hosted in San Antonio and Rudolfo Santos, the Mayor is already planning for it.

We completed the Robotics portion of our trip by sending a second kit to San Antonio and San Marcos. Their clubs both have over 30 members. Minsis Ramos is planning the Lego Robotics expansion for next year with possible municipality run offs before the AMFI wide finals. She is working toward reducing the Shoulder to Shoulder operational role and focus our contribution to technical advice and sponsoring the prizes. Before we left to go home, San Antonio sent a video of their second kit robot already assembled and performing. They also planned to have it march in their local Independence Day parade.

We also began working on the funding and construction of a regional STEM Center. This will support the development and provision of more advanced robotics curriculum as a next step beyond the Lego program. This center will also feature a maker space, CAD system, 3D printer, and other advanced science equipment. I hope to report on the progress of this effort within the next 3-6 weeks. As I write this, I received word that Julio has secured an agreement from the federal government to fund the building and have in hand a signed agreement with Prof Emelia, Director of Camasca colegio. Shoulder to Shoulder will raise funding for the equipment and recruit volunteers with robotics and engineering backgrounds.

At the conclusion of the Robotics Competition, we took advantage of the attendance of the Informatics Teachers from most municipalities to deploy a template to describe their programs and the support they need to strengthen them. Our experience to date with both Lego and First Global is that coding is a weak spot for our robotics program.

While we were in town, I took the opportunity to visit the SL clinic to check on the status of the recently completed project to drill a well for a secure supply of water. The town's water supply is stressed beyond capacity requiring the purchasing of water. As of my visit, the well was not yet functioning, awaiting the installation of the pump. Dra. Dida was on site and gave us a quick update of the clinic operation. Overall the patient load has fallen off dramatically. Most of the expectant mothers now elect to go to El Salvador to deliver at the hospital, rather than risk a trip to Las Esperanza if there are complications. We also saw Dra. Flo who now has a full time practice running at Santa Lucia after completing her specialty training in orthodontia. She also practices her speciality in Las Esperanza on the weekend. Our dental program now has completed the transition to sustainable private practices at both SL and Conce clinics.

We returned to Santa Lucia again several days later to visit two schools now running fully on the Learning Equality system. We have been working Learning Equality (LE) for four years, first with KA lite and more recently with their second generation product, Kolibri. KA lite provided a localized Khan Academy. Kolibri does this plus a dozen and growing additional content providers in both English and Spanish. Most significantly, is Kolibri allows the creation of custom content and combination of local with public. We have completed a content agreement with the government of Honduras which grants us digital rights to all the Honduran textbooks. In environment where the students don't have textbooks and the teacher writes the text on the board – this is huge. And we can further augment the texts themselves with videos from public sources to upgrade the quality of teacher presentations and student engagement. This is what we are piloting this year in our lower level schools and will expand in 2020.

We were an early adopter of Kolibri and were awarded a hardware grant to support our expansion. We've long wanted to host a visit from LE and this year we were finally able to coordinate the trip. Our wait was rewarded by our hosting Richard Tibble – Founder of Learning Equality, Carine Diaz – LA Project Manager and Jordan Yoshihara – Software Developer in charge of the Content Curation Studio.

Las Marias was one of seven grant schools and the site of Grace's experiment with a primary school. I was anxious to see how they were doing and the team put Las Marias on the list of schools we would visit with LE.

My first visit to Las Marias last year was an eye opener. Not only was it very remote, but also one of the poorest places I've been. Poverty is everywhere in the Honduran frontera which makes it especially noteworthy that most school children go to school in uniforms that are sparkling white – even if their mother washes it every day. I had been told that exceptions to this norm meant that they were really poor. The kids at las Marias don't wear uniforms to school and about a third of them had no shoes. We dropped off two servers, routers and projectors to let the teachers begin learning. One of the teachers had used a computer, the other more typical of Honduran primary school teachers had never used a computer or even a smart phone!

I left with two thoughts: They could surely use help, but could they make it work.

Four months later, the two teachers had somehow managed to learn enough using the system in presentation mode so that the team now took them tablets – one for every child. Minsis Ramos is a local Honduran who has now returned to work for us in CREE. She worked in Yo Puedo before winning a scholarship to Robert Jones, completing her college degree in International business. We are very happy to have her join the education program.

Minsis wrote up the experience in a blog post from which I'll excerpt the following.

The day arrived, and our heart was full of happiness knowing that the kids were going to finally have their tablets and with much enthusiasm, we packed the tablets carefully. On our way to the school, we were imagining what the kid's reactions would be and it was not even close to reality. The kids saw us at the gate of the school and we could start hearing murmurs and quiet conversation among them saying, "son los de hombro a hombro y traen una caja" "they are from shoulder to shoulder and are bringing a bin." None of the kids knew with certainty what was inside of the bin, but they had the feeling that something good was coming. We entered the school and put the bin on a wet unpainted wood bench. The professors greeted us and showed us their new classroom – designated for technology. Even though the professors left the kids working in their classrooms, they did not stay there; all the kids ran to the classroom where we were at. They made a circle around the bin, waiting for us to open it. Slowly, slowly we opened the bin and it is impossible to describe all their facial expressions. They were looking at the small boxes inside of the bin and exchanged looks, but none of them dared to touch the contents. We kept them in suspense and finally said, "We brought your tablets!!" The only phrase that can barely capture their reactions was a smile of hope.

(To read the entire post, please visit robot.hn CREE Blog and the Smile of Hope)

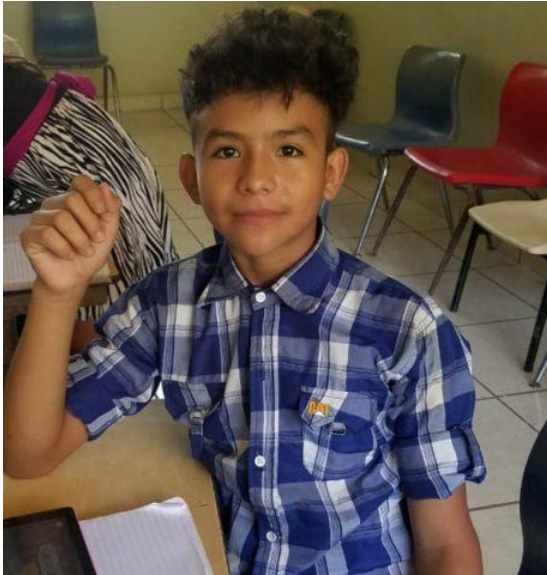
The two las Marias teachers, Efrain and Edy, are pictured at right. Carine Diaz, the LE Latin American Project Manager, interviewed the teachers. Edy provided an insightful quote. In talking about her lack of experience with any kind of technology, she said, “ ***I will learn this because I want it for my kids***”. Carine and Edy also talked about the difficulty of matching the Khan Academy math to the Honduran Curriculum sequence so that the students could be prepared for the government quarterly achievement tests. This has caused teachers in some other schools to avoid using Khan despite its superior video presentations and exercises. These two teachers simply spent the extra time after school and on weekends to develop Kolibri “lessons” that present Khan in the proper sequence. Problem solved.



Problem solved not only for las Marias, but the lessons they developed can be reapplied to all of our other primary schools. Profe Luis was right; these two teachers are not the kind who quit at the end of the school day. They are dedicated and I am so grateful we are working with them.

At the end of the interview, the teachers went to their respectful classrooms. One for grades 1-3, the other grades 4-6. We were momentarily alone in a quiet room empty except for the server, routers and a set of tablets on desks. The quiet was soon broken with the rush of kids coming into the classroom. We watched as they tried to log on to their tablets but seemed to all having trouble. Then one student rose and came up to the router and turned it on. Shortly, everyone had logged on and was working on their lessons. Again, problem solved.

The teachers also shared that they had initial reservations letting the students use the tablets to do exercises unsupervised. Honduran education like that in most of LA is focused on providing the right answers versus developing analytical thinking. We had personally observed incidences of cheating at another school earlier that same day. And we are working to get parents at our bilingual school not to do their child’s homework for them. It turns out that the students at las Marias had also tried to copy off their neighbor’s tablets during the exercises. However, the folks at LE anticipated this and their system has the capability to randomize the order of the questions presented as well as the sequence of answers in multiple choice questions. So students who copied earned a zero score without teacher supervision or correction. Another problem solved.



The bright eyed student pictured at the left immediately drew our interest. Like many of the children we see in rural Honduras this one is smart, lacking only in opportunity. It makes me happy to be able to help bring additional educational opportunity to kids like him.

Turns out, he solved his own special problem. He is a deaf mute. However, he figured out how to use the tablet (bottom left in the picture) and is thriving using Kolibri.

Unfortunately, the teachers tell me he will likely not attend 7th grade next year. I left thinking about how we can help solve that problem.

This was a good trip and this report highlights only some of what we accomplished. Our CREE program is now serving almost 4000 children in 30 schools. Our guests from LE enjoyed their visit and commented that they saw their system being used by several of our lead teachers in ways they had only hoped for. They brought along additional software tools which will assist us in creating Honduran content. The continued development of Kolibri itself is heartening. Beyond the maturing of the system itself, LE continues to secure more Spanish Language content from providers as varied as HP, the Global Digital Library, CareerGirls, and NASA. Ms. Diaz has brokered sharing of content developed in other Latin countries. Finally, while there, we received notice that we were awarded a grant from the US Embassy in Honduras, quickly followed by another from a private source.

With this, we hope to double our number of schools during 2020 and are continuing to build the base of local leaders dedicated to improving education for the youth of the frontera.

While I have the pleasure of writing up this snapshot of what we are doing in the frontera, I would be derelict if I didn't credit the work our current staff does every day. So hats off to Mariela Rodriguez, Edel Adino, Minsis Ramos and soon to include Nely Vasquez. And much of what I am reporting was set in motion last year by Grace Twohig and Sandy and Paul Carey. And finally Laura Manship keeps the teams going on a detailed basis and talking to anyone who doesn't speak English.

I can't wait to return again next year.