Hello Navi: creating solutions, building the future using technology [1]

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Hello Navi Team, from left to right: Janessa Leija, Grecia Cano, Caitlin Gonzales, Mrs. Maggie Bolado, Jacqueline Garcia-Torres, Kayleen Gonzalez, Cassandra Baquero — and of course Andres Salas. (Photo provided by Mrs. Maggie Bolado)

During National Hispanic Heritage Month, Ciencia Puerto Rico [3] and Boringueña [4] are celebrating the work of organizations inspiring, supporting and empowering Latinas in STEM fields. You can read this profile in Spanish here [5].

“We saw him struggling, trying to get around. What if we could create an app to help him?”

Like many great ideas, Hello Navi [6] started with a question. The app—invented by Cassandra Baquero, Grecia Cano, Caitlin Gonzales, Kayleen Gonzalez, Janessa Leija and Jacqueline Garcia Torres—helps visually challenged students navigate their school grounds. Hello Navi was inspired by Andres Salas, a fellow student at Resaca Middle School [7], who is visually impaired.

The app was one of eight national winners of the 2014 Verizon Innovative App Challenge [8] (which is now accepting applications [9] for the 2014-2015 cycle). The initiative challenges students to come up with ideas that could help their community or school.

“We want students to get interested in science, technology, engineering and math (STEM) by creating. We want them to focus on what’s happening in their community and ideate apps to address the issues they observe,” says Justina Nixon-Saintil, Director of Education Programs at the Verizon Foundation, who created the Challenge.

Building solutions

In September 2013, Mrs. Maggie Bolado—science teacher at Resaca Middle School—was recruiting students to build a team and participate in the Verizon Innovative App Challenge.

The girls jumped right in. “We saw a great opportunity to learn something,” state Cassandra Baquero and Janessa Leija (now in 8^{th} and 7^{th} grade, respectively), two of the Hello Navi Team members.

“We all got together in the classroom to discuss topics and ideas. We didn’t start as a team, but the concept of creating an app for visually impaired students brought us together. That’s when we became the Hello Navi Team,” asserts Baquero.

Once the team was set on an idea they started conceptualizing and doing their research. “We all put blindfolds on and walked around the school to experience how difficult it was for Andres to get around,” says Janessa Leija. “It was pretty difficult.”

The Hello Navi Team also met with Andres and his mobility specialist to figure out what would work and what wouldn’t. Their feedback was critical.

“We asked ‘how long does it take Andres to get used to the school grounds?’ We found out that it takes him all summer. All summer! We wanted to give him his summer back,” stresses Janessa.

After months on working on Hello Navi the team submitted their concept [10]. “We had no experience in prototyping. [But] that’s what drives me. Let’s figure it out,” says Mrs. Bolado. “I told the kids ‘it’s all about being fearless. We have already won. We have collaborated, learned about leadership and what it takes to be team. We have solved a problem on campus’,” she adds.

Hello Navi was selected one of eight national winners from a field of 770 concepts that were submitted in the 2014 competition.

As winners, each member of the Hello Navi Team received a tablet and the school was awarded $20,000 for STEM education programs. The team also received training from Verizon employees and from the MIT Media Lab to build the app.

And, they got to visit the White House and meet President Barack Obama.

“You don't realize how amazing it is. We were talking to him like he was a normal guy. And then you realize ‘Oh my God…” shares Janessa. “We just met the President of the United States!” tells Cassandra, finishing Leija’s sentence.

“It’s the best feeling in the world to have the President telling you how amazing you are,” they say, almost in unison.

Creating a future

“Before the Challenge I never thought about STEM. I thought it would be too difficult. Afterwards, I realized you can create a lot of things. I thought that you could just use technology to look stuff up. Now I know I can make [with technology],” shares Janessa.

“As we progress to the future there will be more things for us to work with. Technology will have a great impact in what we do in our real lives,” adds Baquero.

“The girls were very shy [before the Challenge]. Now I observe them and I am so… there are no words. That’s my reward. I facilitated that. I made them aware that there’s a great big world outside the classroom,” declares Mrs. Bolado, passionately.

Janessa and Cassandra now have dreams of becoming engineers, getting scholarships, completing advanced degrees, and working with tech giants. They know that they can achieve anything they set their minds to.

“In the future everyone can create something with technology, no matter their gender or age. As long as you have imagination—we all have it but we are afraid to use it. [You should] be confident

that you can create something amazing with technology. We need to have more confidence in ourselves," states Leija.

Nothing is impossible

Mrs. Bolado and the Hello Navi Team not only built an app, but they built up their school and their community. Their achievement is a great source of pride and inspiration for Resaca Middle School and for Los Fresnos, Texas, a predominantly Hispanic small town near the border with Mexico.

"We made history," says Bolado, proudly. "This is an experience we will never forget."

Although they say that their families are not very comfortable with technology, Janessa and Cassandra would talk to them about their ideas and give them updates about the progress of Hello Navi.

"I would still bounce ideas off of them during our big family cookouts," tells Janessa. "My grandpa loves to build things so we have that in common. My family doesn't understand the details, but they know this is important. One of my aunts recently had a baby and she said that she would tell my little cousin about Hello Navi. I feel like [with my example] I have changed his life."

Hello Navi is available on Android [11] for now, but "eventually we want to make it available on all platforms," adds Cassandra. Andres has tested it out and given the Team his input. The girls are still improving the app and doing some coding. They have big plans for Hello Navi.

"I see the app going worldwide, helping visually impaired children around the world," ends Janessa.

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