App designed to help hikers get home safe

Grade 6 students in the running to win global tech competition

In the North Vancouver neighbourhood that Grade 6 students Eleni McLaughlin, Saoirse Pontin and Madeline Williams call home, helicopters heading out into the mountains to search for lost hikers are a near-daily sight.



NICK PROCAYLO Eleni McLaughlin, left, Madeline Williams and Saoirse Pontin are semifinalists in a global competition after creating an app that solves a problem in their community — it helps save hikers from getting lost.

They're hoping to change all that with the Hike Safe mobile app, a program designed to help trekkers decide whether there's enough daylight left to head out on a chosen trail.

The Ross Road elementary students are semifinalists in the \$10,000 Technovation Challenge, a competition that asks girls to come up with a mobile app with a business plan for solving a problem in their communities. While they're realistic about their chances against teams from around the world, they hope they'll be able to turn their prototype into a reality, no matter what.

"I just think it's a really good idea and I think it'll help a lot of people," 11-year-old Pontin said.

It was Williams, 12, who first heard of the competition and rounded up her "most enthusiastic friends" to create a team. There was just one problem. "Personally, I didn't know anything about coding before we started," Pontin said.

"When we got into coding we realized how much code went into everything."

They found a mentor in Cher Main, who's been coding for 20 years and works with the Girls Learning Code non-profit. She said she was thrilled with what the girls accomplished in three months of work.

"They basically spent their entire spring break coming over to my house. Pretty much every night one of them was sitting at my table," Main said.

"They'd sit there and code and they'd get stuck and I'd go and give them a hand."

At first, the girls thought they might like to create something that addressed traffic issues on the North Shore, or helped people find their lost pets.

"I kept saying to them, 'What's unique about North Vancouver? How are we different from other communities?" "Main said.

They realized that their position on the edge of a forest, right next to a network of fabulous but treacherous hiking trails, made them special.

"We literally live, all of us, right next to Lynn Canyon, so we're constantly seeing the rescue helicopters and hearing all the ambulances," Main said.

They received some crucial advice from Mike Danks of North Shore Rescue, who told the girls that one of the main reasons people need to be rescued is that they get caught in the mountains after dark without a proper light source.

"It kind of blows me away that a Grade 6 is already thinking about this stuff. They're ahead of a lot of people that we rescue," Danks said of the girls.

"If this app can cut down on the call volume for us and prevent people from getting farther into dangerous terrain at night, wow, what a win that is."

And so Hike Safe was born. Anyone setting out on a hike would be able to download the app using a QR code posted at the trailhead. The app would ask them their fitness level, estimate how long the hike would take, and then crossreference that with sunset time.

Hike Safe would warn users to abandon their planned route if they can't finish the trek before the sun goes down.

"If you're going to arrive back within that one-hour period before sunset, it will also automatically set up some notifications for you," Main said, explaining that the app will periodically let hikers know how much sunlight they have left.

"It wouldn't need cell coverage, which is kind of cool."

They developed the app using MIT App Inventor, a coding protocol aimed at beginners.

"It's got all these little blocks that the kids drag and drop, so they don't have to type to code," Main said. The finalists for the competition will be announced within the next few weeks, and if the girls move on, they'll present their invention to a panel of investor judges in San Francisco in July.

This experience has opened up some future possibilities for the young trio. McLaughlin, 11, said she would definitely consider a career in coding one day.

"Throughout these past three months, I really seemed to enjoy computers a little bit more because I didn't know anything about anything when we started," she said.