

Free software favors the favela

Free Favela

With Free Software, some ingenuity, and a lot of drive, a friend brings knowledge, technology, and hope to a “disadvantaged” corner of his world. *By Jon “maddog” Hall*

I do not remember the conference where I met Marcelo Balisteri, but it was about five years ago when he was 26 years old. He had invited me to visit his home sometime when I was in Rio de Janeiro, and that did not happen for 2 years.

Marcelo lives in a favela – which most people call a slum – named Favela Vila Parque da Cidade. His favela is not the largest in Rio, nor the most famous, is not part of the famous “favela tours,” and doesn’t have a lot of the crime that people associate with some favelas. At night, people sit at small restaurants eating simple meals and drinking a few beers. Teenagers go to the park across the street to play “futebol,” and many people walk up the main street from the public transportation that takes them to and from the main part of the city. Once you get to the edge of the favela you climb steep paths, which are too small for cars, to the various apartments, including Marcelo’s apartment.

When Marcelo was eight, his mother sold trinkets to tourists on the street. Marcelo joined her because many people will buy trinkets from a cute kid when they will not from a hard-working mother. It occurred to Marcelo that if they bought the trinkets on the off season (at a much reduced price) and stored them for high season, they could make more profit. Later, when

Marcelo decided he wanted to learn how to use a computer, he found a cast-off computer, found books in the trash on how to use them, and taught himself how to use it. Somewhere along the line, he found out about Free Software, and that is how he knew about me.

Several years ago, Marcelo decided that the favela needed broadband Internet, so he started a company that would bring wireless broadband to the residents.

Although people laughed at him, saying that people in the favela did not need the Internet and that they would never pay him for the service, Marcelo knew that many people had small businesses, and broadband could help them, so he built his own antennas and strung his own back-haul wires. Some people started paying him, and he could then bring better Internet to more people. Eventually six people worked for him, earning a modest living.

Marcelo knows many people in the favela, and he knew there were people who would be able to learn systems administration, networking, and web design, so he applied for a government grant that allowed him to outfit a room with computers, turning it into a classroom. “The kids used to talk about guns and drugs; now they talk about Internet and web design,” he told me. When I met some of his students, I could see the intelligence, drive, and pride in their eyes.

Last Tuesday, I went to the favela again with a friend, who in a short time was enchanted by Marcelo’s charm and promised to come back to teach some introductory programming courses in Python, as well as recruit some additional people to help with the training. “This is nice,” said Marcelo, “as most people are afraid to come to the favela.”

When I showed Marcelo a Raspberry Pi I had brought along and a breadboard for prototyping electronics, hoping to expand his courses to include hardware design, Marcelo showed me a similar board he had found online that ran GNU/Linux, to which he had ported an embedded application from another (closed-source) platform. It turns out a friend of Marcelo’s was selling the embedded application on this closed-source platform, and Marcelo realized that if he ported it to the Linux platform, not only would the application work faster (because of a higher clock speed), but the total cost would be one tenth what his friend was paying for the closed-source hardware and software. His friend would be able to lower the cost to customers, perhaps increasing the number of customers, make more profit on a per-unit basis, or both.

Tomorrow, I go to the university where Marcelo works, meeting some of the faculty to see how they are using Free Software. I plan to discuss how I might be able to create jobs for the favela residents with just a little help from the university.

From my hotel by the beach I can see the favela on the side of the mountain, and beyond is the “Christ the Redeemer” statue with its famous outstretched arms. The problem is, the statue stands with its back to the favela. With people like Marcelo and a little help, perhaps the statue will turn to embrace them. ■■■

