Digital Tools for Job Skills and Entrepreneurship

Since completing her studies in Cuba and beginning her career in Costa Rica, Elena Carreras has significantly enhanced students’ preparation for high tech and entrepreneurial endeavors in the country. An MBA-degreed economist, Carreras led the project that was responsible for installing the first computers in Costa Rican schools in 2006. She has also directed the joint project with Inter-American Development Bank to train entrepreneurs. Earlier she was a financial and technical assistant of the UNESCO-Ministry of Public Education-Omar Dengo Foundation (ODF) project on teacher training and technological implementation of educational informatics in Costa Rica. Since 2003, Carreras has led the ODF Department of Entrepreneurship and Digital Productivity.

Networking Academy Training Throughout the Country

Boasting 20+ years of technology in their schools, Costa Rica first implemented Cisco® Networking Academy® in 1999. In 2005 the director of IT at ODF heard about Networking Academy and convinced Carreras that they should integrate the training into their curriculum. Carreras and her colleague then approached Cisco about implementing Networking Academy in ODF’s curriculum.

In 2008 ODF and the Costa Rican Ministry of Education established the Youth Network Administrators Program, which includes Networking Academy training, in each of the 59 technical vocational high schools in the country. Students in the 11th and 12th grades, who choose to specialize in computer science, take Networking Academy courses.

Compatibility with Costa Rica’s Educational Goals

The Networking Academy hands-on curriculum and instructor training mesh well with the educational priorities in Costa Rica. The country seeks to evolve the role of teacher from “sage on the stage” to learning facilitator and to enhance the curriculum with more dynamic and creative instructional materials.

Carreras explains: “In Costa Rica, our two main priorities for education are to transform the teacher’s role from a source of knowledge to a much more sophisticated role of facilitator, guiding individual learning processes. Secondly, our goal for education is to provide learning materials and content of more contextual, creative, and dynamic subjects.”

These educational goals also include transformation of classroom activities and learning assessment practices to take advantage of digital resources such as online games and Internet collaborative environments, all of which are a part of Networking Academy.

World-Class Training for Job Preparation

Carreras describes Networking Academy as “a leader in training for configuration
and management networking solutions, even those not made by Cisco. When the students complete the training, they are prepared for high-tech jobs or can start their own businesses.”

According to Carreras, Networking Academy stands apart from other companies’ training programs: “Networking Academy curriculum is unique because it reflects the needs of the high-tech market. Students graduate with a technical degree and can go straight to work. Companies are asking for employees who have networking skills.” Costa Rica has a significant amount of call center business for international IT, banking, and cable companies, which require well-trained employees.

**Instructors Guide Students with Current Technology Information**

Networking Academy takes Costa Rica’s professional teachers and helps develop them as network instructors who are fluent in technological terms, collaborative working, and interpersonal skills so they are able to effectively instruct their students. Carreras notes: “We especially value the Networking Academy evaluation system and instructor’s training module. We were able to select professionals to train to convey a more reliable knowledge of networking technology.”

**Students Learn While Playing**

With her focus on entrepreneurship, Carreras also appreciates the Networking Academy Passport 21 set of modules, including the entrepreneurship module with the embedded Aspire game: “The Networking Academy Aspire game has been very useful because it helps simulate real situations that the students will have to face in their work. It is a game so it appeals to the students, but while they are playing, they are also learning. The teachers like it, too.”

**Advice for Other Educational Leaders**

When asked what advice she might have for her peers in Costa Rica and other countries, Carreras’ response was emphatic: “The educational sector must incorporate a strategic alliance with the private sector to introduce feedback into the system. The private sector knows what is going on in the market and what the economic needs are of the country. That way the education sector can incorporate the knowledge and skills that students need in the curriculum.”

— Elena Carreras

**Cisco and Corporate Social Responsibility**

At Cisco, our commitment to education has a long and rich history of changing lives for the better. We believe in education as a means to achieving personal fulfillment and securing a place of value in society so that all will benefit. Education is the passport to a productive and rewarding life. Our corporate social responsibility (CSR) approach is to partner with education communities to demonstrate the networked platform’s ability to increase access to education and improve quality. Our multistakeholder partnerships include government, education, and private sector leaders, as well as NGOs capable of addressing basic needs and barriers to education.


Join a dialogue with education system leaders on education transformation at: [www.GETideas.org](http://www.GETideas.org)