

## MDC fosters a culture of entrepreneurship

By Nancy Dahlberg

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Dr. Eduardo Padrón is president of Miami Dade College. The college has always been entrepreneurial, and it is offering a string of new programs to strengthen South Florida's entrepreneurial and technology ecosystem.

Earlier this month, [Miami Dade College](#) and Goldman Sachs announced they are bringing the [10,000 Small Businesses](#) program to South Florida.

Through a structured educational program and mentoring, 10,000 Small Businesses will help hundreds of small businesses grow and create jobs. And it is just one of a string of initiatives Miami Dade College has in the works to promote or accelerate entrepreneurship. "We know the entrepreneurial energy exists in our community. What needs to grow are the opportunities to strategically support that energy," said Eduardo J. Padrón, who is since 1995 the president of MDC, the largest institution of higher education in America, with more than 175,000 students.

Indeed with the college's [Miami Book Fair International](#) celebrating its 30th anniversary next month and the Meek Entrepreneurial Education Center opening 24 years ago, MDC's entrepreneurial roots run deep. A few current highlights: New industry-focused certificate and degree programs in tech and engineering, with an emphasis on mobile technologies. These include a bachelor's of information systems technology including cyber security starting next year. Because of Miami Dade College's track record in social entrepreneurial programming and engagement among its students, the

college is trying to become an Ashoka Changemaker campus, an esteemed global network that so far only includes about 20 campuses, all of which commit to advancing social innovation at their campus and beyond. The college internship programs in tech are being strengthened, and summer programs for middle school and high school students combine technology and entrepreneurship, showing students the pathway to create their own job as well as improve their tech skills.

"MDC is actively involved in the tech community by collaborating on events that expose our students to the entrepreneurial activities locally with the goal of inspiring the brightest and most talented ones to become entrepreneurs themselves," said Padrón, whose degrees are all in

economics.

Earlier this year, Padrón and a team from the college went to Massachusetts Institute of Technology and Harvard University to look over their centers of innovation and best practices. Last week, he was attending Education Nation and CityLab in New York City. He answered these questions about MDC's missions to improve STEM (science, technology, engineering, math) education and foster entrepreneurship in South Florida.

Q. What is Miami Dade College's role in building South Florida's emerging tech and entrepreneurial hub?

The foundational spirit of Miami Dade College is built around the value of opportunity. Just as the college is an open door institution that provides a broad range of learning opportunities, we want to provide an entrepreneurial environment that reflects the diversity of new business energy in our community.

We need an environment that fosters creative and strategic efforts at business development. We want students to develop creative business pursuits, and open the opportunity for growing small business to the full range of our community's entrepreneurs. MDC also has a very extensive and engaged alumni network as well as professional advisory boards, and many of these people will be valuable contributors as guides and mentors to new business development.

Q. I understand you and other members of the MDC leadership team visited MIT and Harvard in the past year to look at their innovation efforts. What takeaways did you bring back?

They have built a vibrant environment for the conversations that stimulate new thinking and new ventures. Above all, the visits confirmed the importance of crafting an incubator-type environment, one that allows new ideas and growth potential to emerge, and encourages feedback and refinement. We know the entrepreneurial energy exists in our community. What needs to grow are the opportunities to strategically support that energy. We came away more determined to give our entrepreneurs a platform to support their growth.

Q. More broadly, what are the biggest challenges facing the region's entrepreneurs?

Retention and investment are the two biggest challenges. Talented scientists and engineers typically leave the South Florida market for opportunities elsewhere, so the budding entrepreneur in our community has a harder time putting an "A" team together. Additionally, the lack of investment in the technology sector in South Florida is troubling. In 2012, Miami was not on the list of [the top 25 area codes](#) for venture capital deals. In fact, not a single area code in Florida made the list.

Q. And from your vantage point, what does this emerging tech hub really need to succeed?

This emerging tech hub needs mentors, financial investments and people who are knowledgeable and savvy. It also requires individuals who are invested for the long haul in our community. In other words, we need to create an ecosystem that supports emerging entrepreneurs and startups.

Q. MDC has embarked on trying to get the college named an Ashoka Changemaker School. Where are you in that process?

We are in the middle of the process of becoming a Changemaker Campus. We have put together a diverse committee of administrators, faculty, and students to develop a social

entrepreneurship inventory and to create short-term and long-term social entrepreneurship education plans for the college and the community. Our aim is to complete this process by 2014.

Q. How does this fit into MDC's larger focus on social entrepreneurship?

One of the most remarkable characteristics of this institution is the diversity of our students and faculty. Our belief that "opportunity changes everything" is real and foundational to what we do. In order to uphold that foundation, we provide several innovative programs such as the Institute of Civic Engagement and Democracy, the Honors College and the Earth Ethics Institute. Hundreds of our faculty and thousands of students also engage in higher education's largest service learning program. Classroom theory becomes real when students build houses for low-income people, participate in environmental cleanups, complete tax returns for residents, teach reading in elementary schools and much more. Social entrepreneurship and community engagement are basic learning outcomes at MDC.

Q. Tell me about some of your new initiatives with advanced manufacturing and other new degree and certificate programs in technology, such as cyber security?

MDC's School of Engineering and Technology is focusing efforts in two areas, advanced manufacturing and information technology. Beginning next summer, we will offer a new college credit certificate in Lean/Six Sigma Techniques. This certificate will prepare students across all industries and sectors to improve processes and help businesses achieve higher efficiencies in their workflow. Also, in the fall of 2014, this school will offer a bachelor's degree in information systems technology, which will include cyber security.

Q. What role do your industry advisory boards play in curriculum development?

The advisory boards play an important part in our process, as they help keep the college connected with the trends and shifts in industry. We have several boards, typically organized around disciplines, that meet throughout the year. We pay particular attention to the advisory board's recommendations on content and curriculum, as these contributors ultimately hold the potential to hire our graduates. Overall, more than 500 expert professionals are engaged on MDC's program advisory boards.

Q. Are there any new trends your team is seeing in technology education?

There are several areas that will be on the rise in the next decade: software defined networking, software engineering, and cyber security. Professionals with skill sets in these areas are expected to be in high demand within the next five to 10 years. Networks will be virtualized and will no longer need proprietary hardware. Software will form the core of almost every consumer product, especially with the movement toward "the Internet of Things," the next level of commerce and virtual representation. And of course, cyber security will become increasingly important, both in the public sector and private industry, with [examples](#) of corporate cyber-attacks more prevalent.

Q. How have you increased the focus on entrepreneurship and technology in MDC summer programs for high school and middle school students?

We are currently exploring entrepreneurship-based summer internships and camps for students who attend high schools in Miami-Dade County that are National Academy Foundation (NAF) Schools. These high schools have Academies of Engineering and Information Technology (AOE/AOIT) that prepare high school students for IT and engineering pathways. The NAF programs are advised by a STEM Advisory Board, composed of professionals in the local

engineering and IT sector. MDC professors Miguel Alonso Jr. and Toribio Matamoros are STEM Advisory Board members, and are active in bringing entrepreneurship to the high schools. Beginning next year, the STEM Advisory Board, in partnership with Miami Dade College, will be focusing on the entrepreneurial aspects of establishing enterprises by helping high school students within the AOE/AOIT schools develop ideas into potential startups through an apprenticeship-based internship program.

Q. How do you measure success in tech and entrepreneurship training?

Success in entrepreneurship is measured in different ways and is very much dependent on the student's stage of development in the entrepreneurial pipeline. Aside from the obvious metrics of venture capital funding (seed/friends and family, angels, series A, B, C, etc.), there are other metrics that can be measured. Examples include how well entrepreneurs can communicate the value of their product, their 30-second elevator pitch, reviewing their development strategy, the members of their initial team, and the value they bring to the company. These are all important factors in the success of a startup venture.

Since entrepreneurship is a high risk/ high reward endeavor (with more than 90 percent of startups failing), every skill that entrepreneurs gain to help their ventures brings them one step closer to success. And the ingredients for success can be found at MDC.