

Ms. Raquel Regalado, Board Member

SUBJECT: HOUR OF CODE 2014

**COMMITTEE: INSTRUCTIONAL EXCELLENCE AND COMMUNITY
ENGAGEMENT**

**LINK TO STRATEGIC
FRAMEWORK: STUDENT, PARENT AND COMMUNITY ENGAGEMENT**

As of July of this year, the State of Florida has generated almost as many tech jobs (4,100) as it did in all of 2013 (4,500) making it the second fastest growing state for tech jobs, second only to Texas. Earlier this month the Florida Board of Governors announced a new \$3.5 million grant which was given to FAU, Broward College and Palm Beach State College to train college students for careers in computer science and engineering.

And while this grant signals the beginning of the Florida Board of Governors initiative to encouraging curriculum that teaches students the basics of computer programming, also known as coding, experts in the field maintain that interest in computer science has to be fostered at the K-12 level if it is to capture enough students to create a viable tech workforce.

Furthermore, advocates of teaching children how to code say that even though kids today are constantly using technology, very few of them are learning how to create it, and teaching students at least the basics of coding from an early age equips them for a highly competitive tech-focused world and helps their countries' economic competitiveness by insuring the technology industry's ability to find qualified workers.

As a result, several initiatives have been created to expose children of all ages to coding. And among them is Code.org, a free online resource for students to acquire computer programming skills. See <http://code.org/>

Code.org is a non-profit organization launched in January 2013 by brothers Hadi and Ali Partovi with the purpose of making programming accessible to everyone and especially to help K-12 students in the United States let go of preconceptions about computer science being boring. On December 9, 2013, the organization launched the Hour of Code nationwide to enable every student to try computer science for one hour in school.

The Hour of Code is an initiative to further support the organization's efforts to bring computer science into every school in the United States. Code.org is already working on training teachers with some of the country's largest school districts, including New York, Chicago and Broward County in our state. Currently, over 35,000 teachers have signed up to use its tutorials in the classroom since the Hour of Code can also be taught year round. Said tutorials work on browsers, tablets, smartphones, and offline providing several options by which teachers and students can participate.

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Meanwhile, computer science studies in schools are becoming a top priority in education sectors around the world. In England, for example, a new computing curriculum will go into effect next month wherein starting at age five all students will learn the basics of coding and beginning at age 11 they will be instructed in the use of at least two programming languages. In Estonia, first graders are being taught how to create their own computer games and scholarships are being offered to entice more college undergraduates into technology-driven disciplines.

This year Code.org will once again promote Hour of Code between December 8-14 and will include new levels of elementary courses (K-1, 2-3, 4-5), one-day curriculum workshops for elementary teachers beginning this month and middle school programming activities for math and science classes.

But merely telling our students and teachers about this opportunity is not enough. As a District, we need to expose our students to the individuals in our community who are making South Florida a tech hub, the programmers and entrepreneurs that are committed to job creation in the field of computer science. To this end, this item has the support of the Knight Foundation, Black Girls Who Code, Commissioner Juan Zapata, the computer science departments at St. Thomas University and Florida International University, Emerge Americas, Refresh Miami, LAB Miami, The Idea Center at Miami Dade College, MIA Made, Wynocode, and Code Fever, who have committed to working with the district so that mentors from our growing tech industry will visit our schools during December 8-14 and speak to our students about the real life applications of coding and the employment opportunities available in the field of computer science.

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With the aid of these individuals, who will motivate our teachers and students to participate in Hour of Code, we can send a clear message to the State of Florida about Miami-Dade County students' interest in coding and hopefully surpass the participation of every other school district in the United States. In so doing, we will not only expose our students to coding but also set the stage for greater interest from national organizations who are seeking regions in which to promote and fund computer science education at the K-12 level.

**ACTION PROPOSED BY
MS. RAQUEL REGALADO:**

That The School Board of Miami-Dade County, Florida, through the Superintendent, partner with local tech groups and startups to promote the participation by our teachers and students in the Hour of Code from December 8-14, 2014.