

Inside . . .

Meet Three Florida Students Benefitting from the Digital Revolution in Education



*Christy Box
Brevard County*



*Tariq McCray
Seminole County*



*James Hardy
Leon County*

A Leader in Digital Education *How Florida Became One – and Why It Must Remain One*

By William Mattox

Resident Fellow, The James Madison Institute

In the late 20th Century, three gridiron programs from the state of Florida took the college football world by storm. Emerging from relative obscurity, the Miami Hurricanes, Florida State Seminoles, and Florida Gators combined to win 10 national championships in the 1980s, 1990s, and early 2000s. These football programs rose to national prominence thanks largely to their willingness to measure themselves against stiff competition – and to their penchant for developing innovative strategies (like valuing defensive speed as much as size) that enabled them to achieve new levels of excellence.

In similar fashion, the state of Florida emerged from relative obscurity to become a national powerhouse in K-12 education during the early 2000s. Thanks to Florida's willingness to measure student achievement against high standards – and to make a number of important strategic innovations (like giving parents multiple options) – the Sunshine State established itself as one of the nation's Top Ten states in education according to various K-12 ranking services.

In 2011, for example, Florida received a ranking of #3 in the nation from the American Legislative Exchange Council, #5 from *Education Week*, and #4 from Digital Learning Now.

These education rankings serve as a useful guide to how states are faring and where they need to improve. And while some may question whether a "state report card" focused solely on digital education merits the kind of attention normally reserved for

comprehensive rankings, this concern fails to appreciate just how significant new digital technologies are to education's future.

The digital revolution is to education what the forward pass was to football. It is utterly and completely transformative. As Michael Horn of the Innosight Institute has noted, digital education is a "disruptive innovation." It challenges almost all of the prevailing assumptions about how learning should be structured.

Digital education permits students to learn any time of day, during any time of year, from almost any location. It allows students to work at their own pace, advancing from one level to the next when they have achieved mastery of a subject. And digital ed permits students to learn from teachers who live nearby or halfway around the globe.

In short, digital learning facilitates the customization of education. It permits learning to be tailored to one's unique needs, gifts, interests, and learning style. This, obviously, bodes well for students whose needs, gifts, interests, and learning styles do not line up well with the factory school model of education today. But customized education is good for all students (and not just for academic reasons).

Digital education, then, isn't some sort of passing fad – like open classrooms or the veer offense. It's an educational "game changer." And as more and more students take advantage of digital's possibilities, the underlying assumptions behind the way we structure education in our society will increasingly reflect digital's anytime, anywhere, any pace nature.

Given this, if Florida hopes to remain a national leader in the comprehensive rankings of K-12 educational performance, it will need to remain on the cutting edge of the new technologies, distinguishing itself as an innovative leader in digital learning.

Just as college football teams typically fall in the national rankings when they fail to make the necessary adjustments to improve their performance, so too, states that fail to make ongoing improvements to their education policies and to their learning practices typically fall in the national standings measuring student performance.

Where Florida Excels

“Florida is leading the nation in transforming education for the digital age.” So begins Florida’s 2011 “report card” from Digital Learning Now (DLN), the national coalition led by former West Virginia Gov. Bob Wise and former Florida Gov. Jeb Bush. (To view the full report, go to: www.digitallearningnow.com.)

Florida met more of DLN’s 72 benchmarks than all but three western states (Arizona, Idaho, and Utah). And the prevalence of digital learning in Florida exceeds that of any other state.

In 2011, for example, Florida served more than 120,000 online students and tallied more than 250,000 course enrollments. The Florida Virtual School (FLVS) offered more than 110 courses – from art history to driver’s education – and served students in 49 states and 46 countries.

Not surprisingly, Florida’s high marks from DLN stem from a number of factors. These include:

- **Florida ensures that virtually all students have access to publicly-funded digital learning opportunities** at any and every grade level, full- or part-time. These opportunities range from digital tools in the conventional classroom to online classes offered by various providers.

Florida’s only current restrictions pertain to certain students who never enrolled in a public school. In explaining why these restrictions prevent Florida from receiving its highest scores in the “access” categories, DLN notes, “Students who are eligible for public school should be eligible for publicly funded digital learning. Establishing criteria for eligibility, such as previous attendance in a public school, only limits, delays, and diminishes opportunities for learning.”

- **Florida now requires every student to take at least one online course** to earn a high school diploma. Among other things, this new stipulation seeks to ensure that Florida students will be prepared for the digital learning opportunities they are apt to encounter in college and career training programs in the future.

- **Florida largely avoids arbitrary barriers to students**

taking online courses like enrollment caps, student-teacher ratios, and school district approvals. “Capacity – not arbitrary caps on enrollment or budget – should be the only factor in limiting access to digital learning,” DLN observes.

- **Florida allows students to customize their education** by selecting courses from multiple providers and initiating them at any time of the year. The Sunshine State earns very high marks in the “customization” category, yet falls short of DLN’s top score because Florida’s county-based virtual schools are currently prohibited from enrolling students from other school districts. “Restricting access based on geography, such as where a student lives, is illogical in the digital world where learning can occur anywhere and everywhere,” DLN observes.

- **Florida bases student advancement in online courses on demonstrated competency** – not on “seat time” in a classroom. “We all know that seat time doesn’t guarantee learning and in some cases it obstructs learning,” FLVS President and CEO Julie Young observes in a recent *Florida Trend* cover story.



Box Has Got Lots of Online Extras

Like many other high school juniors, Christy Box of Melbourne is involved in lots of extracurricular activities. She’s a Student Ambassador for her school, the editor of the student newspaper, the vice president of the Future Business Leaders Association, and a member of the Fine Arts Club.

But unlike most Florida high school students, Christy doesn’t actually go to school every day. Christy is a full-time student in the Florida Virtual School (FLVS) and all of those student groups she participates in are online clubs for FLVS students.

That Box has become a quintessential “joiner” is somewhat ironic, because she first took an interest in online schooling to escape the impersonal mob scene at her large public school. Yet, Christy has found that relationship-building is certainly possible in a virtual school. And she says that one of the best things about being an FLVS student is that it allows her to establish a one-on-one relationship with her teachers. (In addition to being “high-tech,” FLVS has a “high-touch” commitment to regular teacher-student phone calls.)

Having taken her “online school” with her on long trips, Christy says she “loves the flexibility of FLVS.” She says her two siblings, both of whom are significantly older, “wish that they had had virtual schooling when they were coming along.”

Box hopes to study screenwriting at the University of Southern California after she completes her high school studies. But for now, she’s busy taking honors classes and “attending” school club meetings – much like many other high school juniors.

Linking advancement to student mastery – rather than student age, attendance, or minimum achievement – is a good example of how the digital revolution can help transform the structure of education. Not only can digital learning help render social promotion obsolete, but it can make schools more adaptable to situations where a student is ahead in one subject, yet behind in another.

- **Florida uses student learning as the key metric in evaluation.** It relies on objective measures of student performance in assessing the quality of content, courses, schools, and instruction. In addition, Florida compensates online teachers based on the number of students who complete courses successfully rather than on the number who warm chairs.

- **Florida ensures that all digital courses and instructors are high quality.** State law requires all digital content to align with state benchmarks, holds online and print content to the same review standards, offers multiple routes to teacher



McCray Marches to His Own Virtual Beat

Freshman tuba player Tariq McCray of the Lake Howell High School Marching Band prepared for the fall football season last summer in a most unusual way. He enrolled in an online Algebra class.

Knowing that the demands on his time in the fall would be great, Tariq decided to “get a head start” on his studies by enrolling

in a math class through the Florida Virtual School. By starting Algebra I in June, he not only bought himself some much-needed scheduling flexibility in the fall, but he put himself in a position where he could complete Algebra I and Geometry online by the beginning of his sophomore year.

McCray hopes to enroll in the International Baccalaureate (IB) program at nearby Seminole High next fall; yet, to do so, he needs to be ready to take Algebra II next fall with the other IB sophomores. That’s where FLVS pays off – since it allows motivated students to work at a faster pace if they desire.

Tariq first got acquainted with FLVS when he took a keyboarding class in 7th grade. He then knocked out his high school physical education requirement online in 8th grade, beginning that course during the winter holidays “since I didn’t have any other schoolwork.”

McCray says he likes the convenience and flexibility of online classes, but concedes that virtual classes sometimes face challenges. “Group projects get complicated online,” he says. “They usually work better in the classroom.” Still, McCray says he wants to keep taking online classes throughout high school – even (or especially) if it means studying during his school “breaks.”

certification, and includes performance-based measures of student achievement in the teacher recertification process.

Ways to Build on Success

While Florida earned high marks from DLN in most areas, it fared poorly in meeting many of Digital Learning Now’s infrastructure benchmarks. According to DLN, “Florida can improve by adding digital enrollments to its data collection, exploring innovative ways to provide students with Internet access devices and creating a statewide website.”

Obviously, implementing some of these recommendations would be costly in the short run. Yet, it’s important for education leaders to recognize that digital learning promises to bring about cost savings and economic efficiencies in a number of areas.

For example, digital curricula can be updated easily without costly reprints. Permitting students to advance upon mastery makes early graduation (and the savings associated with it) more likely. Offering online courses can help schools maximize class size efficiencies when there is insufficient interest to justify additional course offerings. Full-time virtual schools foster lower transportation and building costs.

Moreover, digital infrastructure improvements would improve Florida’s educational system in other ways. Take, for instance, DLN’s website recommendation. “Consumers of education – both students and parents – often provide the best feedback on the quality of providers,” DLN observes. “A publicly-available database that fosters a feedback loop, similar to tools used by Amazon or eBay, would help parents and students make informed decisions about digital learning.”

In addition to addressing infrastructure needs and other chinks in its digital learning armor, Florida’s education leaders need to be mindful of the warnings contained in *The Rise of K-12 Blended Learning*, a 2011 report written by Michael Horn and Heather Clayton Staker of the Innosight Institute. It warns that much of the promise of digital education could be thwarted if public school systems seek to squeeze new technologies into old frameworks. “There is a significant risk that the existing education system will co-opt online learning,” Horn and Staker write.

How exactly might this occur? By school districts adopting policies – like requiring all virtual classes to begin and end in accordance with the existing school calendar – which turn the advantages of digital learning on their head. The big danger with digital education, says Horn, is that schools will take a “disruptive innovation” that can help us build a new system adaptable to the individual needs of each student and will force it instead to work within the traditional one-size-fits-all paradigm.

The Math of Khan

For Florida to remain among the leaders in digital learning, it will need to continue to adopt innovative strategies that take advantage of digital learning's creative potential.

For example, the Florida Virtual School has stayed on the cutting edge of course design, recently introducing a U.S. History course taught in video game format. This course bears some resemblance to early home computer games like "Where in the World is Carmen Sandiego?" Its promise for capturing the imagination of many disaffected students – particularly boys – is extraordinary.

Similarly, Florida education leaders should seek to learn from a remarkable "blended learning" school model developed by the Carpe Diem Schools in Yuma County, Arizona. At Carpe Diem, students do not spend the bulk of their day in a teacher-centered classroom with 20 or so other students. Instead, they each have a cubicle where they work at a computer on digitally-driven sequential assignments in various subject areas.



For Hardy, School is a Real 'Mash-Up'

High school senior James Hardy takes classes at Tallahassee Community College (TCC) every Tuesday and Thursday – and spends the rest of his school week taking online courses at two different virtual schools. If that sounds like a crazy-quilt academic program, welcome to the 21st Century . . . where

some of the best learning plans, like some of the best songs, are a real "mash-up."

Lest there be any doubt, Hardy never set out to be a student at three different schools simultaneously. Yet, after being extremely frustrated with the chaotic nature of his public high school during 9th grade, James enrolled in the Florida Virtual School in 10th grade – and has continued to take FLVS courses ever since.

This year, James decided to become a dual-enrolled student at TCC so that he could get a head start on college. And he opted to enroll in the relatively-new Leon County Virtual School so that he could qualify for a high school diploma.

Hardy says that taking a blend of conventional and online courses has given him an appreciation for both. "In online courses, you feel like the class was made for you," Hardy says, noting that virtual classes allow him to move on as soon as he has mastered a concept and to linger longer when he needs extra time to understand an idea.

James plans to major in Hospitality Management in college and dreams of someday owning his own restaurant. When asked if he'll allow his future restaurant customers to order "off the menu," Hardy considers his own "a la carte" schooling practices and replies, "Of course."

Teachers digitally monitor the students' self-paced work and periodically lead group or individual tutoring sessions that give special attention to students struggling to grasp certain concepts. The result, according to Carpe Diem founder Rick Ogston, is a "school that blends the best of face-to-face instruction, technology, and extended learning opportunities in order to boost student achievement."

To date, Carpe Diem's results have been extraordinary. Whereas 57 percent of all Yuma students (and 65 percent of all Arizona students) are performing at or above proficiency, 92 percent of all Carpe Diem students are doing so. (See: www.youtube.com/watch?v=-s_O65rWV10.)

In similar fashion, many students (and teachers) are benefitting from The Khan Academy, a remarkable digital learning resource. The Khan Academy began as a series of ten-minute YouTube tutoring lessons in math and science that Salman Khan developed for his niece (who lives halfway across the country). A graduate of the Massachusetts Institute of Technology and the Harvard Business School, Khan certainly knows his stuff. And he also knows how to impart knowledge to others in simple, byte-sized chunks.

In fact, soon after Khan began posting his tutorials for his niece on-line, people all over the world began discovering his lessons via YouTube. Word spread, some investors got involved (including a fellow by the name of Bill Gates), and Khan soon was devoting himself full-time to a task that had started as an uncle's goodwill gesture.

To date, Khan has put together several thousand lessons. And his success in educating students via free YouTube tutorials has prompted some innovative math teachers to "flip the classroom." That is, rather than spending their day explaining math concepts and then sending students home to practice problems, these teachers have made watching Khan's tutorials the homework assignment and are now spending class time providing students with personalized help on practice problems.

In essence, the Khan Academy has made it easier for teachers to replace the "sage on the stage" model of classroom instruction with a "guide by the side" model that is more adaptable to the unique needs of each child.

Moreover, Khan is helping people to view different modes of learning much like we view different modes of art. That is, just as there are some musical recordings and some films that no stage performance could rival (and vice versa), there are some digital means of delivering educational content that no in-person instruction could rival (and vice versa).

Given this, "old school" Florida policymakers should not deny today's students "digitally-mastered educational iTunes" just because policymakers dig "educational live music." In the 21st Century, a well-rounded education is apt to include both.