

THE WAVE OF THE FUTURE

*Why 'Micro' Education Merits
Greater Attention from Policymakers*

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Abbey Carlson's skill on the golf course not only helped her school's golf team win tournaments, but it also helped land her a scholarship to attend Vanderbilt University.

When teen golfer Abbey Carlson speaks of “flight time,” she could just as easily be talking about the timespan one of her drives stays in the air as she could the aviation schedule for her next solo excursion in the plane she helped build.

Carlson, you see, is a 2016 graduate of an innovative “school of the future” in Central Florida that has offerings in both golf and aviation. Yet, the “school of the future” tag probably has more to do with the school's unique structure than it does the diverse array of courses and extracurricular activities that helped Carlson land a full scholarship to Vanderbilt University.

To understand this structure, think college – not high school. Carlson took classes three days a week instead of five. She had friends who took a number of courses at the school, and others enrolled in just one course. Some of Abbey's classmates studied at her campus; others learned at one of the school's two other locations in Central Florida.

All of this flexibility perfectly suited a competitive golfer like Carlson, who often plays in weekend tournaments that require Friday travel. And Carlson believes her high school experience will help ease her transition to Vanderbilt's School of Engineering.

"I've learned how to study outside the classroom and to be really good at time management," she says.

Not surprisingly, Carlson says many of her conventionally-schooled peers were "very jealous" of the scheduling freedom that enabled her to work on her putting stroke at times when they were required to be in daily classes.

Yet, if you ask Jim and Linda Werner, the accidental masterminds behind this grand innovation in K-12 education, the flexibility their school offers isn't

learning institutions. For example, the aviation courses that Carlson took (which she considers the "coolest thing I've ever done") earned her dual-enrollment credit through Embry Riddle University, a national leader in aviation education.

Today, the Werners' school serves roughly 700 Central Florida students. Some, like Carlson, come from conventional schools. (Abbey spent her first five years in a public school.) Many others come from homeschooling backgrounds. And while the school maintains the kind of faith-based commitment one would expect from its name – Circle Christian School (CCS) – there is nothing exclusively religious about hybrid models of schooling.

Indeed, Michael Horn of the Clayton Christensen Institute in San Francisco notes that a growing number of public and private schools around the country are adopting "blended education" strategies. These strategies integrate supervised instruction in a brick-and-mortar setting with independent study in which students have at least some control over the time, place, path, and pace of their learning. Horn says the digital revolution is fueling this "disruptive innovation." Highly effective online resources like the Khan Academy are making it possible for more students to spend at least part of their school week learning in "customized" ways that would've been unimaginable a generation or two ago.

According to Horn, most blended-learning programs generally fall into one of four categories: Rotation, Flex, À la carte, and Enriched Virtual. (See page 3.) The Werners' "hybrid" school most closely resembles programs in the "à la carte" category, since it allows students and parents to enroll in individual "unbundled" courses rather than to do all of their coursework as part of a comprehensive "bundled" curriculum at a traditional brick-and-mortar school.

À la carte schooling (like à la carte dining) will probably always be less common than "prepackaged" education – especially since most "bundled" curriculum plans allow for some variations within their structure. Just as restaurants often offer "your choice of two sides to go with your entrée," most traditional schools offer some electives to complement the main courses they require.

Nevertheless, policymakers ought to be particularly interested in recent developments – and future possibilities – in the world of "unbundled" education. Innovative schools like CCS show what can happen



After helping to build this small airplane, Abbey Carlson gets ready to take a solo flight as part of her pilot training.

designed to help students skirt scholastic obligations. It's designed to help students get a "customized" education tailored to their unique needs, interests, aptitudes, and learning styles.

As for the label "accidental masterminds," when the Werners first opened their school three decades ago, they weren't looking to start a fervent "revolution" in the way Americans structure K-12 schooling. They were simply trying to address some educational challenges confronting their own children – and some of their homeschooling friends.

As a result, the Werners opened a "hybrid" school that offered neither the all-day-every-day schedule of conventional schools, nor the potential isolation of go-it-alone homeschooling. Fee-based courses arose organically in response to needs within their community; and partnerships were struck with other

PARSING THE TERMS OF INNOVATION

■ It's an exciting time for education innovators, as the Digital Revolution opens up all sorts of promising possibilities for improving student learning. But it's also a confusing time – or at least it can be, given all the new terms and concepts being bandied about. For example, what exactly is the difference between **“blended”** and **“hybrid”** learning, at least as these terms are commonly used?

When “Blended” author Michael Horn of the Clayton Christensen Institute uses the term “blended education” he is talking about comprehensive education programs that integrate 21st century digital learning with certain time-tested, “old school” aspects of education (like face-to-face interaction between a student and an adult supervisor).

Horn likes the term “blended” because the “macro” programs he champions have a holistic focus in which all learning is integrated. The “blend” to which Horn is referring is a combination of online learning and traditional, face-to-face learning in a brick-and-mortar facility. His important work is primarily directed at influencing education leaders and school officials whose current responsibility is to serve the public interest.

Conversely, Jim and Linda Werner speak of their school as a “hybrid,” perhaps in part because their “micro” model emerged organically from the bottom up, giving emphasis to individual components (courses) rather than to a comprehensive systematic whole. Their “hybrid” is a mashup of home-schooling and conventional schooling (with online learning an option, but not a requirement) and their important work is primarily directed at helping individual families find “personalized learning” solutions that work for their particular children.

Obviously, there is a fair amount of similarity between Horn’s “blended” programs and the Werners’ “hybrid” model – and their respective approaches overlap, especially when it comes to “à la carte” education options. Indeed, many “macro” high schools make it possible for students to take “à la carte” courses online – particularly in subjects where there may not be sufficient student interest to justify a traditional classroom course.

According to Horn, this “à la carte” model of integrated learning is just one of several blended education models the Christensen Institute champions. These include:

- **“Rotation” model:** Moves students through different learning modalities (classroom instruction and computer lab activities):
 - sometimes with an emphasis on the teacher’s role as a “sage on the stage” (with online learning as reinforcement)
 - sometimes with an emphasis on the teacher’s role as “guide by the side” (who provides tutorial reinforcement of online lessons in a “flipped classroom”)
- **“Flex” model:** Online education is the backbone, with students learning at their own pace while seated at individual work stations that are supervised by roaming instructors who provide face-to-face support on an adaptive and as-needed basis (via small-group instruction, group projects, and individual tutoring).
- **“Enriched virtual” model:** Online courses taken at remote locations (away from the traditional brick-and-mortar school) are augmented by pre-planned, face-to-face learning sessions with the teacher.

While it’s important to understand the differences between different terms and various models, it’s also important to celebrate what all of these educational innovations have in common: the promise of improved learning opportunities for all students.

To fully realize this vision, we will need to work simultaneously from the top down and the bottom up. And we will need to make it increasingly possible for parents to direct the education of their children if they so wish.

Too often, educational progress is stunted by policymakers’ fear of bold innovation – a fear that is rooted in the perception that public officials ought to be primarily responsible for the education outcomes of all students.

Allowing parents to direct the education of their children ought to liberate policymakers. It also ought to lead to better student outcomes, not just for those raised in “early-adapting” families that embrace new innovations in education, but also for children in “later-adapting” schools whose options and possibilities are expanded by the successful experiments of pioneering families.

when education markets are allowed to respond to real-world needs rather than be forced to conform to conventional schooling norms. And because “à la carte” educational enterprises like CCS challenge our current school-centered conception of education, they may be uniquely positioned to help us find creative solutions to current education problems that conventional schools have often struggled to address.

Indeed, as we will see, hybrid schools like CCS not only can help advance the interests of their own students directly, but they also can help aid other K-12 students indirectly by facilitating the rise of: (1) new providers, (2) new resource guides, and (3) new regulators and credentialing agents.

Let’s look at each of these ideas more closely.

New Providers

One of the greatest hindrances to innovation in education is that starting a new school – or transforming an old school – is a very daunting proposition. Many a startup has been crushed by the burden of trying to provide comprehensive services to all of its students. When students and parents expect a new school to have everything an existing school has – a critical mass of students at each grade level, a wide array of elective courses and sports teams and student clubs and other extracurricular activities – it can be enormously challenging for startups to compete.

This is part of the reason why policy measures to expand school choice have more often resulted in students filling open seats at existing schools rather than attending entirely new schools. And it is part of the reason why most new private or charter schools primarily serve younger

students (whose parents are less concerned about electives, sports, and other “extras”).

Interestingly, the Werners grew their school course-by-course, not grade-by-grade. Because they weren’t trying to build an all-day every-day school, they didn’t worry about trying to duplicate the often-elaborate offerings of existing schools. They simply sought to fill needs in their community. Consequently, if a group of homeschooling families needed a high school physics

course taught by someone with expertise in that area, CCS leaders found a qualified instructor and offered the course.

It would be easy to dismiss the significance of this piecemeal strategy by pointing out that the number of (mostly-homeschool) parents looking for à la carte courses at any given time is only a small fraction of the overall K-12 population. But the ultimate value of the Werners’ “à la carte” strategy is that it encourages people to think about education at the “micro” (individual course) level, not simply at the “macro” (comprehensive school) level.

When one begins to think in “micro-education” terms – rather than in school-centered terms – all sorts of interesting and far-reaching possibilities arise, especially in the digital age.

Consider, for example, the Museum of Florida History in Tallahassee. It’s hard to imagine that the people who run this museum have ever entertained the possibility of opening a full-fledged, all-day every-day school. And why would they? They’re in the museum business, not the schooling business.

Nevertheless, the Museum of Florida History is an educational institution, broadly speaking. And it has expertise in Florida history that the average classroom teacher would find hard to match. Thus, even though the Museum of Florida History isn’t apt to ever start a “macro” school, it’s quite possible that its curators might someday want to offer a fee-based “micro” course in Florida History at the museum (and online to students around the state) – especially if parents could use some of the per-pupil funding designated for their child to offset the cost of such a course.

Likewise, other “educational institutions” might want to offer their specialized expertise in other similarly-funded “micro” courses for K-12 students – such as music classes led by symphonic organizations, Hebrew language courses offered by local synagogues, literature classes hosted by public libraries, and computer coding and other STEM courses offered by high-tech businesses.

The point isn’t that all future education could or should take place in such piecemeal fashion. It’s that thinking in “micro” terms – and adjusting public policy to facilitate the creation of various “à la carte” course options – greatly expands the universe of education providers. In turn, this increases the likelihood that all students will have access to high-quality instruction tailored to meet their own unique needs, interests,



Hybrid school founders Linda and Jim Werner.

aptitudes, and learning styles rather than getting one-size-fits-all, assembly-line courses designed to ensure “uniformity” in schooling.

Greatly expanding the array of educational options to include such courses would be highly beneficial for all students – but potentially threatening to established K-12 interests, who have a stake in maintaining the traditional school-centered status quo. Which leads to the next innovation that “micro-education” facilitates.

New Resource Guides

Most school administrators think of their job primarily in “provider” terms: How does our school provide all the courses that our students need in order to advance to the next grade and ultimately graduate from high school? That, as noted earlier, can be a very daunting proposition – especially for startups, but even for well-established schools in our fast-changing world.

The Werners think of their role very differently. Because they believe parents are ultimately responsible for the education of their children – and because they have no interest in running a comprehensive, “we-do-it-all” type of school – the Werners conceive of their leadership role in “facilitator” or “coordinator” terms that may be more akin to leading a scout troop than to leading a conventional K-12 school.

In scouting, young people acquire knowledge and skills that lead to advancement and achievement. Some of the merit badges scouts earn are completed in group classes or sessions organized by their troop leaders. Others are earned independently under the guidance of a “merit badge counselor” who has been approved by troop leaders because of his or her expertise in a particular field.

Consequently, the role of scout leaders isn’t to provide young people a comprehensive array of instructional group classes. Their role is to serve as “resource guides” who can assist young people by identifying and drawing upon a variety of existing resources available in their geographic area (or online) that can help scouts advance and achieve. When there are no good options to meet a particular need, a scout leader will usually develop a program to meet that need. But in most cases, a scout leader’s first impulse is to draw on existing resources rather than to “reinvent the wheel” and needlessly duplicate the work of others.

The Werners approach their work at CCS in a similar fashion. They devote a great deal of time and energy to



Circle Christian School’s highly-regarded theatrical program regularly puts on student productions at Orlando’s prestigious Repertory Theatre.

helping each CCS family develop a plan for acquiring the courses (“merit badges”) that each child needs to advance and achieve. In fact, in many ways, the hub of CCS is its guidance office, which helps families make curriculum choices and learn about enrichment opportunities. Sometimes, this means pointing parents to courses offered by the Florida Virtual School or local community colleges. Often, it means helping parents identify high-quality homeschooling curricula that can facilitate independent study and complement CCS courses taken in the classroom.

Frequently, when CCS leaders see unmet needs in their community – or unusual opportunities nearby (like the plane-building aviation program that Abbey Carlson so enjoyed) – they initiate new courses or programs in response. The school’s nimbleness in responding to such opportunities is no doubt enhanced by the fact that CCS leaders aren’t burdened with the “everything from A-to-Z” responsibilities of “macro” schools. CCS leaders are also aided by the fact that the school runs a lean operation with much lower “building and maintenance” expenses than most conventional schools. This cost-efficiency

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is both a practical necessity (given the fact that they're serving a population with many one-earner households) and an appealing byproduct of their "micro" school operating philosophy: When you don't hold classes in a traditional all-day schedule, you don't have to invest as heavily in buildings and utilities.

Moreover, because CCS is a faith-based school, it holds classes at several Central Florida churches that otherwise would be underutilized most weekdays. This arrangement proves to be a win-win for all parties involved. The churches receive compensation for the

use of their space from a faith-compatible school that complements their work. The school gets rental space for less cost than it would have to pay in the retail "storefront" market. And CCS families enjoy the cost savings that come from the school's greatly reduced overhead expenses. In the end, when compared to conventional brick-and-mortar schools, a far larger

share of the CCS budget goes to fund direct student instruction.

The cost-efficiency of the CCS model also makes it easier for school leaders to fulfill their "resource guide" function in both an efficient and effective manner. Since CCS doesn't have a substantial overhead to worry about, and since its educational philosophy explicitly acknowledges the need for other education partners and providers, the school is able to execute its "resource guide" role in a manner more like a "good agent" in the real estate market (who seeks to find the very best fit for the buyer) than a "bad realtor" (who tries to steer families only toward properties that his company controls).

Sadly, much of K-12 public education today is controlled by forces that conspire to steer families and students toward "educational properties" that are controlled by the existing establishment. And while that sounds – and often is – pernicious, it's important to recognize that most of those who work in the public school system are good people who want to do right by children. They simply work in a monopolistic, one-size-fits-all system that we have collectively inherited from previous generations. Too often, this system not

only fails to meet the needs of its students, but the needs of its employees as well. It is highly unrealistic – and terribly unfair – to expect any school (or any teacher) to be a perfect fit for every single student that might live in its school zone. Yet, this is the premise upon which our entire public school system is built.

In a world as diverse as ours, parents need options. They deserve choices. And they ought not to be restricted by their ZIP code – or by other arbitrary considerations like "uniformity" – from finding the right fit for their child.

Micro-schools like CCS, which inherently challenge the myth that do-it-all schools can do-it-all-best for every student, are a refreshing reminder that we need more resource guides in education who think in something other than school-centered terms. We need more resource guides who are willing to point parents to a wider palette of schooling and course options than the public education system currently permits.

Yet, expanding the universe of educational options carries with it certain risks. To extend the real estate analogy, how can we help families find the very best fit for their child while at the same time protecting families and students from the educational equivalent of a condemned building? Once again, the emerging world of "micro" education contains some promising answers.

New Regulators and Credentialing Agents

Most in K-12 education acknowledge – or at least pay lip service to – the importance of parents being actively engaged in the education of their children. A wealth of education research, dating back to the highly-influential Coleman Report in 1966, points to the fact that student achievement is more strongly correlated with certain family factors (such as parental involvement and the number of books and other learning tools in the home) than with many of the school factors that so often dominate our public discourse (such as teacher-child ratios and per-pupil spending levels).

Nevertheless, harnessing the power of parents in the education of their children has proved to be one of the greatest challenges "macro" schools have faced over the last half-century. Despite all of the research pointing to the critical role that parents play, "parental involvement" in our nation's school-centered conception of education sometimes amounts to little more than organizing PTA bake sales and attending

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occasional parent-teacher meetings.

Against this backdrop, the Werners' "hybrid" school represents a very promising departure from the status quo. It illustrates what a true partnership between parents and schools can look like. CCS leaders strive to blend their own expertise, developed over the school's more than 30-year history, with the expertise of parents – many of whom bring to the school a good deal of awareness about various curriculum options, enrichment programs, and learning strategies.

And where do these parents gain this awareness?

Interestingly, a vibrant "cottage industry" of curriculum reviewers and resource assessors already exists in the "à la carte" education world, dispensing advice to homeschooling moms and dads looking for tips, insights, and curriculum recommendations. Much of this information can be found at the annual convention of the Florida Parent Educators Association (FPEA), which draws 17,000 people to Orlando every May. But even more of this counsel is available online through websites, message boards, and social media postings – some of which provide the sort of "crowdsourcing" feedback and consumer rating systems commonly associated with Amazon, Yelp, Uber, Rotten Tomatoes, and others.

These reviewers help to regulate the "à la carte" education market to ensure that the most effective resources are identified as such, and that consumers understand why a curriculum that would be a good fit for a kinetic learner might not be such a great choice for an auditory learner. Not surprisingly, the quality of this evaluative information is often richer and much more helpful than that provided by government regulators. (For instance, while it's always reassuring to see that a restaurant has an "A" rating from the public health department, it's often more useful to read the Yelp comments about how good the restaurant's food actually tastes.)

À la carte schools like CCS often have a greater appreciation for parental input of this kind than do conventional schools. Indeed, the Werners' hybrid school actually allows parents to propose the use of certain curriculum in independent study courses being conducted under the auspices of CCS. At the same time, for CCS to fulfill its vision of offering "parent-directed education with private school credibility" – and for it to maintain its accreditation from AdvancED-SACS – school leaders have to make certain that "an Algebra I course covers what an Algebra I course is supposed to cover," as Jim Werner puts it.

This attention to upholding formal academic standards is one of the ways in which hybrid schools like CCS distinguish themselves from informal homeschool co-ops. (Offering fee-based courses is another way.) It is also an example of how the Werners' school performs a "credentialing" function commonly associated with conventional schools – but also found in other enterprises like scouting (where leaders must certify that anyone who advances to the rank of "Eagle Scout" merits that designation).

Still, even though CCS sees credentialing students as a part of its existential mission, it would be a mistake to suggest that CCS approaches all oversight and accountability issues in the same way that public schools do.

Public school leaders often view themselves as accountable first and foremost to government bureaucrats at the district, state, and national level, while private learning institutions like CCS view themselves as accountable first and foremost to the parents whose children attend their school. Indeed, because they do not serve a captive audience (as public schools do), all private schools have the same market need to "please their customers" that other free enterprises have.

In education, this accountability-to-parents-first is desperately needed. While parents aren't all-wise and all-knowing, they do typically know their own children best; and they do typically care about their child's outcomes far more than even the most soft-hearted government bureaucrat. This

concern for their child's well-being often motivates parents to get the information needed to make good decisions on behalf of their child. This helps to explain why parental satisfaction is (or should be) an extremely significant factor in evaluating schools, courses, programs, and education policies – and why hybrid schools that philosophically embrace the primacy of parental responsibility in education ought to be welcomed, celebrated, and viewed with at least as much legitimacy as conventional schools.

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America's Most Important Counter-Culture?

It may come as a surprise to just about everyone in the education reform world that some of the most important innovation currently taking place is occurring within the “à la carte” world of homeschooling and hybrid schools. Homeschoolers, after all, have long been considered – and have long considered themselves – an educational subculture that just wants to be left alone by the wider world. Indeed, homeschoolers are rarely represented at most conferences and gatherings of education reform experts and constituency groups – including those that occur within the vibrant “school choice” movement.

Nevertheless, it may be time for all of us to recognize that the homeschooling community is perhaps the most important counter-culture in America today. For many of the promising ideas that most animate education reformers today – parental choice in education, customized learning, mastery-based standards of progress and advancement, digital learning, dual enrollment courses, hybrid schools, alternative forms of credentialing, and so on – are ideas that have deep roots in the homeschooling community. Remember, the Werners started their hybrid school 30+ years ago!

As such, rather than viewing the homeschooling community as a somewhat exotic educational subculture that is best left alone, it may be time for education reformers to increasingly welcome input and ideas from this community – and from hybrid school leaders who work in both the homeschooling and conventional schooling arenas.

Moreover, it is past time for policymakers to recognize that taxpayers who help fund public education ought to be able to govern the per-pupil dollars that are designated for their child (if they so wish). Florida has taken an important first step in this direction with its passage of the Gardiner Scholarship for special-needs children. This scholarship program puts the per-pupil funds for student recipients into a personal learning account that their parents can draw upon to purchase a wide array of educational products and services: tuition, books, online courses, tutorial services, curricula, speech therapy, testing, and so on.

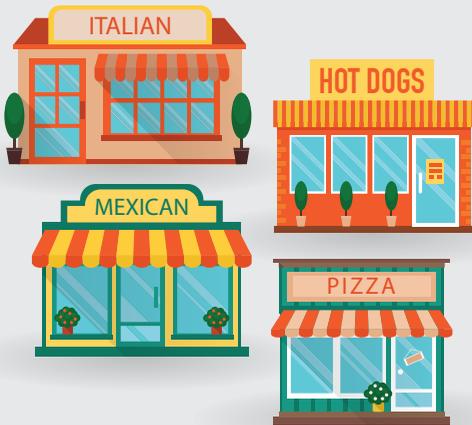
As such, the Gardiner Scholarship goes beyond conventional education choice programs (which offer parents the opportunity to choose which “macro” school best suits their child). Gardiner also embraces giving parents education choice at the “micro” level (selecting an array of “unbundled” learning products and services to customize their child’s education). And while Gardiner Scholarship recipients are not obligated to use multiple providers, it’s easy to see why the program’s flexibility would be prized by parents of special-needs children. And it’s not hard to imagine that other students would benefit from this flexibility as well. Consider, for example, a young boy who is reading above grade level but doing math below grade level. The Gardiner Scholarship’s flexibility makes it easier for that child to get the kind of instruction that he needs in both subjects, rather than to be grouped with students who may be well ahead of him in one subject and well behind him in another.

Thus, policymakers need to build on the Gardiner Scholarship by making personal learning scholarship accounts available to all K-12 schoolchildren (as Nevada has done) rather than restricting them to certain populations. Yes, children with unique challenges should be given priority in programs like these; but the goal should be to give all Florida students the opportunity to learn in the manner that best suits them – whether that is through a “bundled” program at a conventional school or an “unbundled” collection of courses taken from an array of educational providers.

Putting per-pupil dollars in the hands of parents will give students all sorts of new options and opportunities. It will help facilitate greater innovation in schooling. And it will help lead to more customized learning opportunities for students. Indeed, for many cash-strapped, hybrid-friendly parents, having a personal learning scholarship account just might make it possible for their child to chart a course similar to Abbey Carlson’s unique “flight path” in K-12 education.

Blended Learning: A Menu of Choices

We have options when it comes to the food we eat — why not for something as important as education?



1

You can pick where you go.



I'll take the #3 with a side of fries.

2

You can pick courses from a list of options.

I'll take some classes at school and do some online.



3

Whether eating or learning, often the most enriching experiences are found at home.



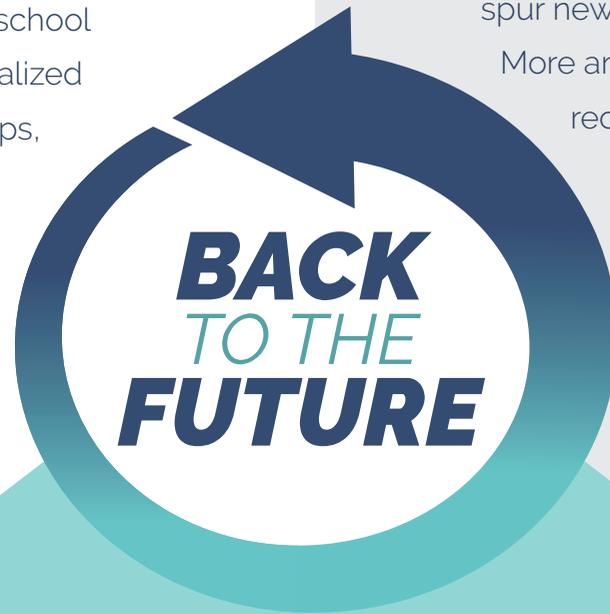


For many centuries, learning primarily occurred outside a formal school structure in highly-individualized ways (tutors, apprenticeships, etc.). For example, young Abraham Lincoln learned enough to practice law by reading law books on his own.

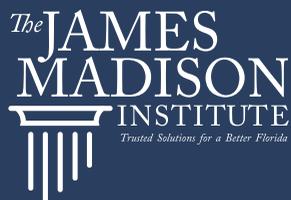


The digital revolution is helping spur new possibilities in learning.

More and more students are receiving instruction in highly-individualized ways that are tailored to their unique needs, interests, aptitudes and learning styles.



With the rise of mass schooling modeled after mass production, learning came to be associated with formal group instruction housed in brick-and-mortar facilities (or “factory schools”).



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