Authorizing Matters

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Originally authored by Gregg Vanourek,
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Evergreen Education Group

An (Updated) Primer on Virtual Charter Schools: Mapping the Electronic Frontier

The Internet has had a profound effect on our lives, work, politics, and commerce—and increasingly, on our schools. Virtual schools have arrived, creating new opportunities for students, and also a set of challenges to our notions about schooling and the policies that govern public education. The potential application of technology in education may change the way that current versions of schools and schooling are limited in time and space. Will future technological innovations revamp educational conceptions of time, like class periods, grade levels, six-hour school days, and 180-day school years? These units of time, as well as physical school buildings, classrooms, and district boundaries, still define "school" for the vast majority of students. Will this change in the coming years?

These are no longer unusual questions. Online schools, and schools that combine online and face-to-face instruction to create blended learning opportunities, are on the cutting edge of educational innovation and a rapidly growing segment of the public education sector.

Online and blended schools challenge some of our most basic assumptions about schooling. They no longer place groups of children of the same age in an assigned grade with a teacher and chalkboard in a room for 50-some minutes at a time in 180 six-hour days. With virtual schools, we move to learning that is not bound by time, space, and pace, liberating education systems from the confines of rigid blocks of time and uninspired configurations of space to better meet the needs of students.

While the potential for true educational transformation is great, we must begin by creating a shared understanding of what online and blended learning is, and how it is best implemented.

About this Issue Brief and the NACSA Cyber Series

This is the first in a series of briefs aimed at improving authorizer practices for virtual charter schools. This paper will define concepts in online learning, including full-time and blended learning, and will discuss recent trends in growth and governance of various types of online learning and virtual charter schools. Later documents in this series will address specific adjustments to authorizer application and review processes, the emergence of and issues related to blended-learning environments that combine a brick-and-mortar setting with advances in technology, and policy issues associated with cyber schools and blended learning.

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Definitions and Critical Distinctions

Educators and policymakers lack common definitions of key concepts. Some of these distinctions have important implications for the work of authorizers who face decisions about how to evaluate charter applications or measure performance. While these challenges in defining or characterizing schools seem technical or arcane, the distinctions can have important implications for policymakers, governing board members, and authorizers.

Definition ought to drive program design. A thorough understanding of the technical aspects of a program becomes crucial to governing board members responsible for holding an operator accountable for implementing the specific design. The technical aspects are important to policymakers because these aspects of a school affect how states determine funding levels as well as the jurisdictional authority of various authorizing entities. Authorizers also need to understand these aspects to understand how best to evaluate that school's performance.

The first challenge is to establish common terminology. Readers should note that state laws and regulations define many of these terms differently. These differences can affect authorizers' work. This paper defines "virtual school" as *an educational organization that offers K–12 courses through Internet-based methods, with time and/or distance separating the teacher and learner. Students enroll to earn credit towards grade-level advancement and/or graduation.* A "blended school" *combines some aspects of a virtual school with some aspects of face-to-face instruction.* In order to be called "blended," however, a school must meet a threshold of online learning activity that transforms the instructional model. One definition suggests that blended learning takes place when "a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace."[1]

Virtual schooling is often conflated with two related but distinct terms: "e-learning" and "distance education" [See Glossary]. The difference between virtual schools and these types of instruction are that in virtual schools, education is both *online* (Internet-based) and at least partially *remote* (with distance between student and teacher, and often outside the classroom). By contrast, e-learning can be entirely classroom-based or remote—and

FIGURE 1. *A FRAMEWORK FOR UNDERSTANDING VIRTUAL SCHOOLS*

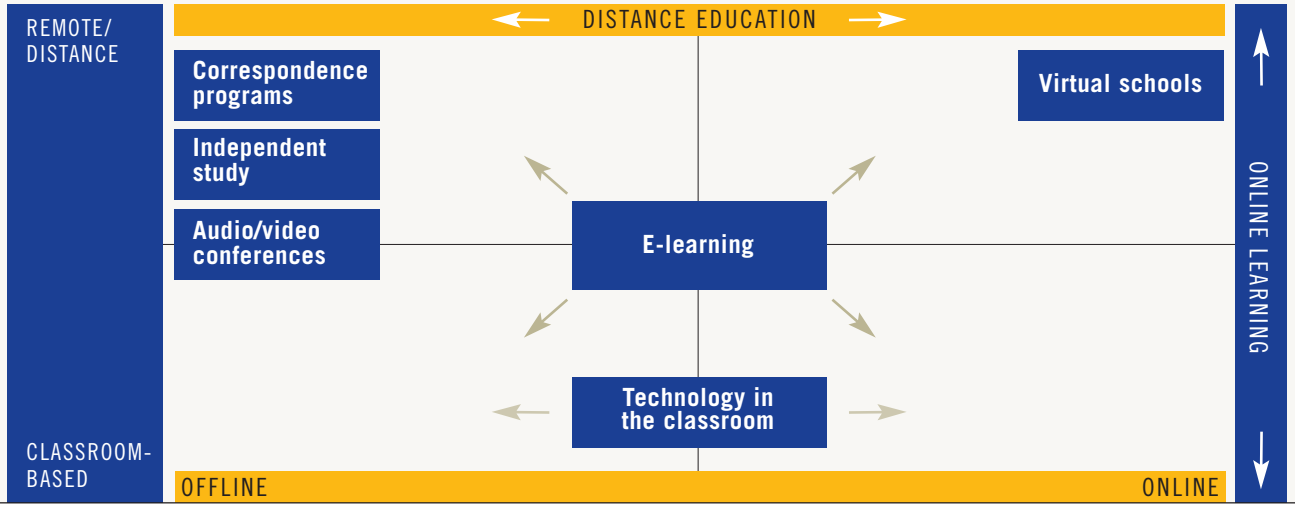

Figure 1

can be online or offline (software-based, but not Internet-based). Distance education can be electronic or non-electronic (e.g., correspondence programs or independent study) but is always remote. So, virtual schools are a subset of e-learning, which is a subset of distance education [See Figure 1].

These definitions are further confused by the fact that more and more software, including educational software, is moving online. Some of the leading educational technology products were installed on computers or local area networks first and did not have an Internet component (in some cases because they pre-dated the World Wide Web). Educational software that does not have an online component, however, is increasingly rare.

A second challenge is that many terms are used to mean essentially the same thing. These terms include "virtual," "cyber," "online," and "electronic" (or "e-"). It helps to recognize that these terms are essentially synonymous when used to modify the word "school," but usage depends on where one lives. Alaska and Pennsylvania call them "cyber schools," but Minnesota and Colorado prefer "online schools," while Ohio prefers "e-schools," and Arizona uses "virtual schools." Another related term—used internationally—is "ICT" (information and communication technologies), which refers to the use of electronic technology in various fields (e.g., education, business, government, daily life).

Some people confuse virtual schools with home schooling or with charter schools. The truth is that virtual schooling can be structured and governed in many ways, including through traditional public-school systems. Many virtual schools are charter schools, while others have a different governance structure. Each state's laws or policies (or lack thereof) tend to influence which governance structures are adopted most frequently. However, the preference in the charter sector for innovative forms of education and the freedoms generally afforded to those who engage in homeschooling make virtual schooling particularly relevant to charter and home schooling.

This brings us to our third challenge: Most attempts to define virtual schools sort them into categories based on their operating entity or legal status. Examples include public, charter public, district-sponsored, state, university-sponsored, consortium, private, and home school virtual programs. While logical, this approach misses the full array of important elements.

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As shown in Figure 2, virtual schools can be identified by 10 defining dimensions, as noted in *Keeping Pace with K–12 Online Learning (2010)*[2]. Of the 10 dimensions listed in the figure, four are especially significant.

Comprehensiveness (supplemental vs. full-time)

One important distinction is whether the online program provides a complete set of courses for students enrolled full time or provides a small number of supplemental courses to students enrolled in a physical school. Full-time online schools typically must address the same accountability measures as brick-and-mortar schools in their states.

Reach

Online programs may operate within a school district, across multiple school districts, across a state, or in a few cases, nationally or internationally. The geographic reach of online programs is a major contributing factor to the ways in which education policies can be outdated when applied to online programs, because the policies do not account for the possibility that a student in California may be learning from a teacher in Illinois who is employed by a program in Massachusetts. Program reach also has important ramifications for accountability and for the authority of various authorizers to grant a charter to a school in a given state or locality.

Delivery (synchronous vs. asynchronous)

Most online programs are primarily asynchronous—meaning that students and teachers work at different times, communicating via email and discussion boards. The few online schools that operate classes in real time may present a somewhat different set of program and policy questions depending on state policies. Blended classes combine asynchronous online components with real-time, face-to-face instruction.

The Defining Dimensions of Online Programs

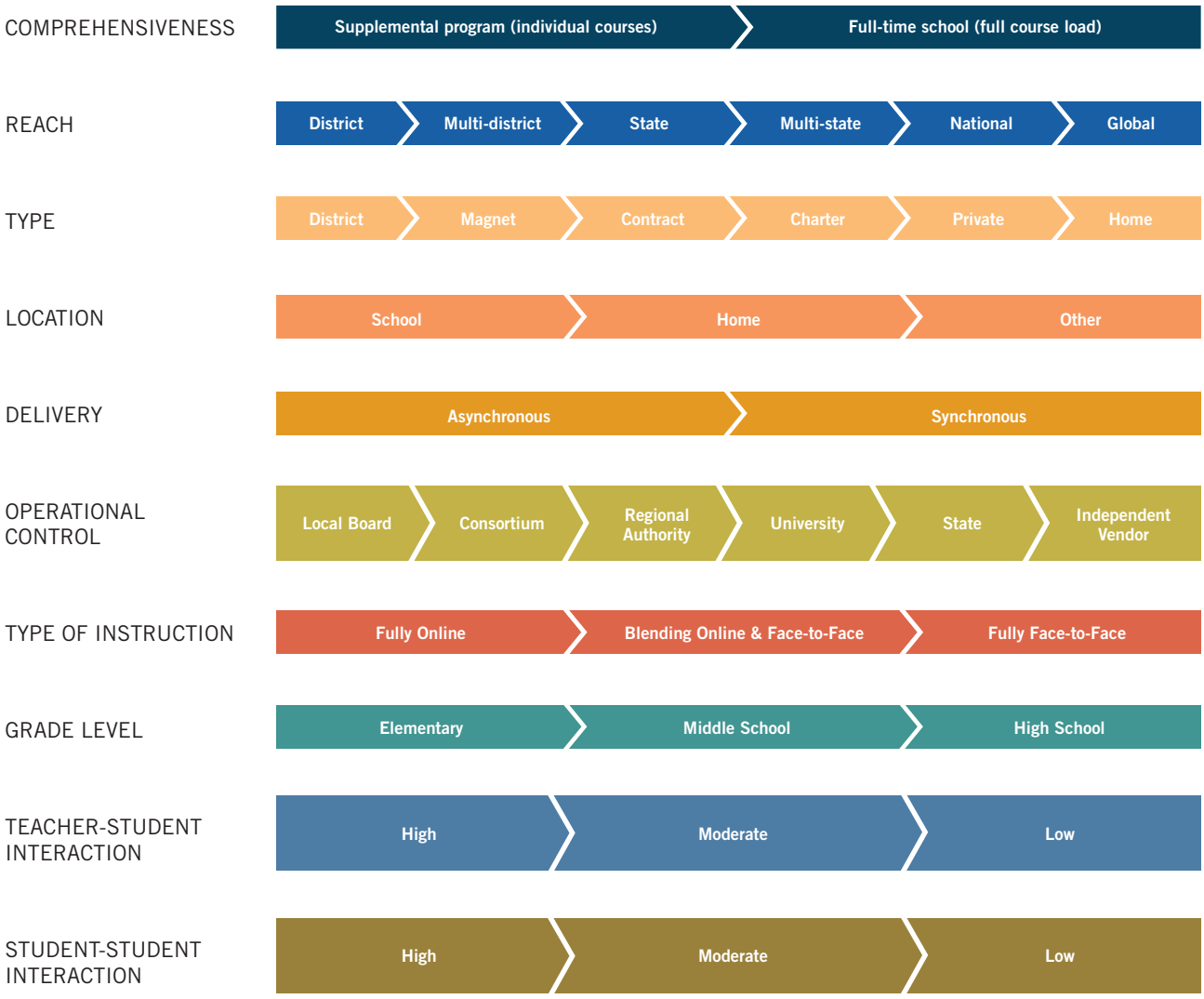

Figure adapted from Gregg Vanourek, A Primer on Virtual Charter Schools: Mapping the Electronic Frontier, Issue Brief for National Association of Charter School Authorizers, August 2006.

Figure 2: Defining dimensions of online programs

Type of instruction (from fully online to fully face-to-face)

Many programs are now combining the best aspects of online and classroom instruction to create a variety of blended learning experiences. For policy and accountability, the key question is how to determine the threshold of online activity that can and should trigger online-learning accountability measures.

In addition, the following dimensions help to define a school, and therefore determine what accountability structures apply:

- Location: is it school, home, or "other" based?
- Type: the type of school it is (e.g., charter, traditional district school)
- Operational control: ranging from a local board to a state agency to an independent vendor
- Grade level
- Teacher-student interaction: the amount of interaction
- Student-student interaction: the amount of interaction

As online learning evolves into new models that include blended learning, personalized instruction, portable and mobile learning, and computer-based instruction, other defining dimensions come into play as well [See Figure 3]. The level of instruction that includes online components may be a lesson, a single course, or an entire school. A course that includes online instruction may expand learning beyond the school day or school year, or it may still be defined by classroom hours. The roles of teachers and students may be quite similar to their roles in a typical classroom, or they may change dramatically as learning becomes more student-centered.

As with other schools, most virtual schools have an office, administrators, teachers, professional development, curriculum, support services, attendance, grades, report cards, parent conferences, special-education services, field trips, school events, after-school activities, state testing, school board meetings, and even disgruntled parents.

However, there are important differences between virtual and traditional schools: more individualized and self-paced instruction, greater dependence on technology, complicated logistical issues due to the dispersion of students, different kinds of socialization (some face-to-face, some virtual), no snow days, and more.

One of the key differences relates to time and learning. In a traditional classroom, time is fixed and learning is variable. At the end of a traditional class period, the amount of actual learning that has occurred will vary, sometimes dramatically, by student. In a virtual environment, learning may be fixed and time variable (e.g., the student can continue to study the lesson until achieving mastery)—although this is not always the case in practice. For authorizers, these different approaches can complicate accountability and funding, especially when state funding systems are organized around contact hours or; as, is the case in most states, when there are requirements for public schools to provide a minimum amount of contact time for all students.

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By the Numbers

Mapping the electronic-schooling frontier is difficult because the territory is changing rapidly, and changing definitions and program designs cloud the map. The annual report *Keeping Pace with K–12 Online Learning (2010)* reported the following statistics from the 2009–10 school year:

- 39 states have state virtual schools or state-led online initiatives (online schools operated by the state, typically offering supplemental courses to students in brick-and-mortar schools). While their sizes vary dramatically, Florida Virtual School reported more than 220,000 course enrollments, comprising 49 percent of the 450,000 enrollments in state virtual schools reported nationwide. (Note: One course enrollment equals one student enrolled in one semester-long course.)
- 27 states plus Washington, D.C. have at least one full-time online school serving students from multiple districts or statewide. *Keeping Pace* estimates that

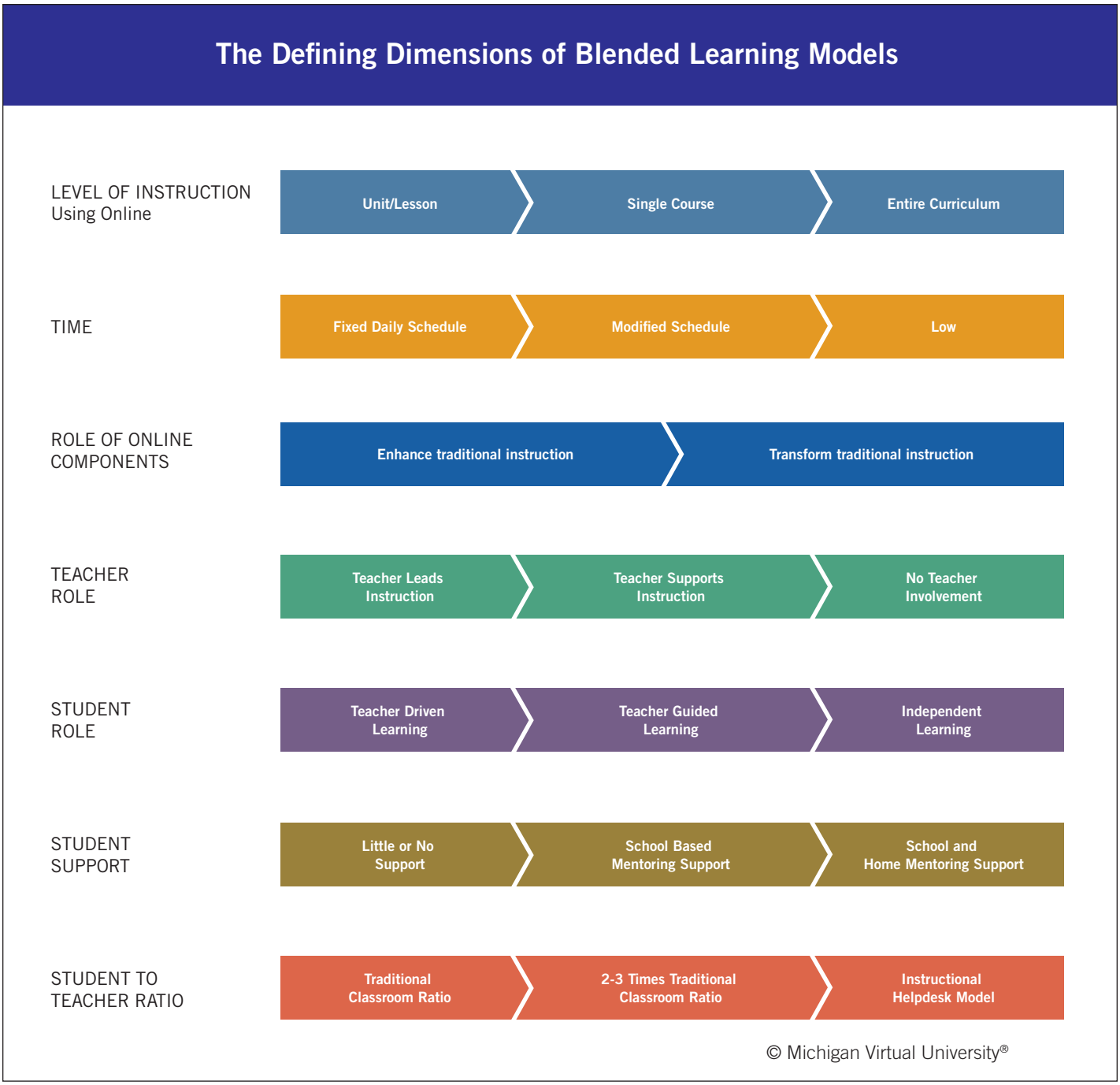

Figure 3: Defining dimensions of blended learning. Source: Michigan Virtual University

200,000 students are attending full-time online schools, with an annual enrollment increase of 15–20 percent. (Note: Full-time schools report enrollments based on full-time equivalents.)

- Individual school districts that operate online programs for their own students make up the fastest-growing segment of K–12 online learning. It is estimated that 50 percent of all districts are operating or planning fully online (including virtual charter) and blended learning programs.
- The International Association for K–12 Online Learning (iNACOL) estimates that 1.5 million students are taking one or more online courses. This makes the charter school sector basically equal in scale to the online education sector.[3]

Charter schools are the leading providers of full-time virtual education in the United States. According to the National Alliance for Public Charter Schools, there are now 219 virtual charter schools, and another 142 that identify as a blended or hybrid model. This shows dramatic growth both from the total number of virtual charters in 2006–07 (147), as well as the number of states that allow virtual charters (from 18 to 38). It is clear that charter schools have been "early adopters" of virtual schooling. While charter schools presently comprise only about 5 percent of the total number of U.S. public schools and 3.3 percent of all public school students, this is still a statistically significant increase from about 4 percent of all U.S. public schools and about 2 percent of public school students.

Although there has been significant growth in district-sponsored online and blended learning programs, this growth has come largely in the form of supplemental enrollments—students taking one or two courses to supplement a curriculum at a brick-and-mortar school. Charter schools still lead the charge in supporting students' full-time, virtual-enrollment needs.

Many states are actively pursuing virtual learning opportunities as well. Ohio has 27 eCommunity (charter) schools that served 31,852 students in 2009–10; this is a significant landscape change from the 40 eCommunity schools that enrolled about 17,000 students in 2006–07. As of the 2009-10 school year, Pennsylvania has 12 cyber charter schools with about 24,603 full-time students (2,000 each, or about 8–10 times the size of the usual charter). Wisconsin has 14 online charter schools that enrolled 3,927 students in 2009–10; the state has a cap of 5,250 online charter students, which it expects to reach this year. Minnesota has 24 online charter schools that enrolled 8,248 full-time students in 2009–10, 43 percent more than the 5,772 students in 2008–09. Nevada virtual charter schools had a combined enrollment of 5,950 total students in 2009–10, a 76 percent increase from 3,377 students in 2008–09. The story is clear: Enrollment in virtual charters is increasing across the country.

The preponderance of virtual charter schools are full-time schools that are able to advance students by grade level and award diplomas, not supplemental online programs offering one or two classes to students enrolled in brick-and-mortar schools.

What Happens in a Virtual Charter School?

Although describing how virtual charter schools work is tricky due to their diversity, it is possible to provide a basic snapshot. The preponderance of virtual charter schools are full-time schools that are able to advance students by grade level and award diplomas, not supplemental online programs offering one or two classes to students enrolled in brick-and-mortar schools. Families begin with the enrollment process—often completing online forms and submitting residency documentation. Upon enrollment, students may receive a computer on loan from the school and reimbursement for Internet access; in the case of Jefferson County's 21st Century Virtual Academy (Colorado), only students who qualify for free or reduced lunches are eligible for a free computer. Some virtual charter schools require students to purchase digital textbooks and Web-based resources, while others rely heavily on books and classroom materials to supplement digital content.

Students generally log in from home, though they can do so anywhere with Internet access. Connections Academy reports that, on average, its younger students enrolled in full-time online programs spend approximately 10

percent of their time working on the computer; middle school students spend about 30 percent; and high school students spend about 50 percent. In addition, students may spend time working offline, which includes reading, practicing handwriting or math problems on paper, performing science experiments, or drawing. A parent or other responsible adult is asked to supervise—and sometimes to assist with instruction, motivation, or guidance.

Virtual charter school teachers work out of a school office building or from their homes, typically with school-supplied computers, Internet access, and training. States such as Wisconsin and Tennessee, and providers such as K12 Inc., require teachers to have certification or professional development specific to teaching in a virtual environment. Some schools require teachers to meet face-to-face with students as little as one or two times a year, or as frequently as one or two times a week. Teachers design individual learning plans for their students based on placement tests, standardized test results, parental input, and student interests. Administrators generally work at the school office and attend to all the same tasks of their non-virtual counterparts except those related to facilities, transportation, and lunch rooms.

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Student and teacher interaction occurs through a variety of methods. Asynchronous tools include email, threaded discussion groups, and wikis, while synchronous methods include online chat, instant messaging, phone calls, and text messaging. The amount of interaction in each course—between students and teachers, and students and students—varies by school. Parents and administrators also use many of these tools to monitor student progress in a course.

What Types of Students do Virtual Charter Schools Serve?

One of the most common questions about virtual schools and virtual charters is: What type of student is most likely to succeed in the virtual environment? As it turns out (yet again), the answer is highly variable. Virtual schools appeal to a wide array of students, attracting students from the entire achievement spectrum. Self-paced study allows struggling students to catch up without a classroom full of distractions, yet enables advanced students to accelerate their work without waiting for other classmates. Students who struggle with the typical challenges of teen and high school life may find the even playing field of the virtual school a refreshing environment. Families choose virtual schools for many reasons: curricular options, individualized instruction, mastery-based learning, flexible scheduling, interest in technology, safer learning environments, concerns about negative peer pressure or bullying, and more.

Most students in virtual schools and virtual charters transfer into them from district public schools, but many home-schooled students have also shown great interest in these school options, often to connect with other learners and the support of professional staff. Students who participate in time-intensive extracurricular activities such as acting or athletics, and high-mobility students (for example, those in military families) are attracted to the flexibility. Urban parents may be fleeing overcrowded schools, while rural parents may seek advanced academic offerings not available locally.

Benefits

After almost 15 years of experience with virtual schooling, the best online charter schools have demonstrated benefits at both the school and system levels. Not all schools demonstrate these benefits, but when virtual schooling succeeds, the following may be present:

SCHOOL-LEVEL BENEFITS:

- New educational options for students
- New professional opportunities for teachers and administrators
- The opportunity for self-paced, individualized instruction and competency-based pathways

- New ways to monitor and assess student, class, and program progress
- Ability of teachers to focus their time and expertise on individual student progress, needs, and learning styles, instead of playing to the "middle" of the classroom
- Curricular richness with expert instructional design
- The most innovative virtual schools "push" out information to teachers, administrators, and parents about what facilitates and inhibits student learning, providing transparency and continuous feedback

SYSTEM-LEVEL BENEFITS:

- Opportunity to share high-quality teachers regardless of location
- Equal access to a high-quality curriculum regardless of location
- Flexibility in delivering different programs to different students
- Opportunity to serve districts and states in a crisis (e.g., districts around the country are implementing "snow day" online programs)

Challenges in Virtual Schooling

Virtual charters present challenges to teachers, who must learn new technologies and teaching approaches to be successful. Too many programs simply load lessons developed for the traditional classroom directly onto the Web without making adjustments for the new delivery methods, thereby not taking advantage of the technology to transform and strengthen the educational experience. While some states require teachers to go through teacher preparation or certification specific to teaching online, most states still do not require specialized training.

States with state virtual schools often lead the way in certifying online teachers. All Georgia Virtual School (GVS) teachers must pass a full-year course in order to teach online. As GVS is run by the Department of Education, the certification is considered an endorsement; the same is true in Texas. According to the 2010 U.S. Department of Education *Technology Counts* report, only 39 percent of public school districts require teachers to take professional development on integrating technology into instruction, though 66 percent report offering online curricula resources to all elementary and secondary school teachers. The National Center for Education Statistics reports that as of 2009, only 10 states require teachers to have "technology training or testing for recertification, or participation in technology-related professional development."

There are also downsides to not having daily face-to-face interactions between students, teachers, counselors, and administrators. Virtual schooling requires an increased reliance on partnerships with the home and community, and often relies on strong parental involvement—especially for students in lower grades. Administrators face a multiplicity of challenges: building a school culture; identifying and incorporating program technology needs; monitoring each student's progress from a distance; supervising and evaluating teachers working remotely; delivering, tracking, and reclaiming textbooks and computer hardware; and coordinating statewide testing programs across vast regions.

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Providing special education services to students far and wide can also be a challenge. Cyber schools must fulfill their obligations to serve students with disabilities, and the services a student requires are dictated by federal laws, and they are always dependent on the individual students needs. Without a system for daily face-to-face contact, cyber schools may have challenges creating the infrastructure to provide those services.

The startup and maintenance costs of virtual education are not well known. Virtual schools must budget for sizable expenditures on computers and servers, sophisticated instructional design, content and course management systems, learning management systems, and teacher training [See Glossary]. Most virtual schools, including virtual charter schools, receive significantly less funding than conventional schools—often 20 to 30 percent less (though there are no systematic and reliable funding comparisons nationally).

Student recruitment can be difficult and unpredictable. Some operators creating the second or third cyber school in a given jurisdiction may find that expenses and effort

of recruitment to be much greater than expected and more difficult than for the first viable cyber school in the jurisdiction. Cyber school operators often must adjust budgets to allocate more resources for outreach and recruitment at the same time that enrollments may not meet projected amounts, creating additional budgetary and staffing challenges for the schools.

Student mobility is also a challenge in virtual schooling. In many virtual schools, many students leave the school after a single year or an even shorter period. Some of this is due to students who seek a virtual school as a temporary alternative due to a particular event or circumstances, such a serious illness, bullying, or disciplinary issues at their previous school. They then return to traditional school settings. Other virtual schools attract out-of-school youth who require flexibility for various circumstances. This mobility, in addition to raising challenges for instruction, can complicate efforts to evaluate the school's effectiveness.

Many of the challenges listed above have implications for the work of authorizers.

> The formal research is limited, but generally demonstrates that online learning shows no significant difference from traditional physical classrooms.

Evidence of Effectiveness

Research into the virtual education is mixed. Online learning can be effective if done well—and it can also be ineffective. Research into the efficacy of online schools falls into two broad categories: formal research studies reviewing online learning practices, and the results of online schools on state assessments and other measures applied to all public schools.

The formal research is limited, but generally demonstrates that online learning shows no significant difference from traditional physical classrooms. The most recent example of this type of finding is the 2010 U.S. Department of Education report *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*[4]. This finding is true not only of online learning, but also other types of educational technology; research has found no significant difference between new technologies and traditional face-to-face classes. Put another way, both online learning and face-to-face classes can be effective, or ineffective.

State audits of online schools (many of them charter schools) in Colorado, Kansas, Wisconsin, and Idaho came to the same broad conclusions: Some online charter schools showed positive results, while other charter schools did not. States' outcomes also differ. Only a selective reading of the audits and studies can lead to a broad conclusion that online charter schools show predominantly good, or bad, outcomes.

The question about the comparative effectiveness of virtual schooling, though, may be too blunt. Students, parents, educators, and authorizers should ask which types of virtual schools work, under what *conditions*, with which *students*, with which *teachers*, and with what *training*. In fact, each of these same conditions should be understood in regards to all types of learning—not just online—in order to guide students to where each is most likely to succeed. Researchers are increasingly asking these questions. Early findings suggest ways that online schools can work effectively for students who have dropped out of school, ways in which teachers can be provided professional development, and ways in which online schools can use data to manage instruction.

Virtual Reactions, Virtual Politics

Virtual schools have created controversy in some states. The rapid growth of virtual schooling has generated mixed reactions. In the public school community, part-time virtual high school programs are widely accepted but full-time virtual schools are eyed with raised brows, especially at lower grade levels. Excitement about the possibilities is tempered by concerns about the competition for students and teachers that is generated, as well as concerns about quality.

Within the policy community, there is no clear consensus on what model of virtual school delivers the best outcomes for students. The schools (and providers) are often far ahead of the policymakers, creating innovative solutions to existing problems, yet often falling either outside of or pushing the meaning of existing legislation. This is not without problems. Misconceptions abound, and debates over virtual schools are often rife with inaccuracies (see "Common Myths about Virtual Schools"). In many cases,

Common Myths about Virtual Schools	The Reality
1. Students spend all day online.	1. Varies by school. Most limit online time to up to a few hours (and less for younger students).
2. Students lack social skills and socialization opportunities.	2. Varies by school. Good programs build a sense of community and provide opportunities for students, parents, teachers, and administrators to interact regularly.
3. Only technology whizzes need apply.	3. Nearly all programs are designed for "point-and-click" users and provide training opportunities for students, parents, teachers, and administrators.
4. Students with special needs cannot be accommodated.	4. Varies by school. Public virtual schools (including virtual charter schools) are required to provide services. Good virtual schools offer excellent services, often via contracting with specialized providers.
5. Only high school students need apply.	5. Currently, 80 percent of elementary students use computers. Good virtual schools account for differences between younger and older learners, potentially including levels of autonomy, locus of control, intrinsic motivation, cognitive development, etc. (NCREL, 2005).
6. Accountability is a lost cause in the virtual environment.	6. Varies by school. Public virtual schools (including virtual charter schools) fall under state attendance, performance, and testing regimens. Good virtual schools "push" out lots of data about student performance. Some argue that instant access to data on student learning makes virtual schools more accountable.
7. Virtual schooling can be done at a fraction of the cost of traditional schooling.	7. Varies by model. There are conflicting studies on this and no definitive conclusions, though many of these claims are unsubstantiated.
8. Virtual classes are "easy."	8. Varies by model. As teachers no longer have to teach to either the lowest common denominator or the "middle of the class," all students can be individually challenged to their ability levels.

policies are being established after virtual schools are already up and running, by people without a good working understanding of how these schools operate. There is an urge to regulate virtual schools using conventional bureaucratic protocols designed for physical schools that are no guarantee of quality themselves. For example, many states have provider and course approval processes; in some states these processes are cumbersome and not transparent. This leads to challenges in getting new providers and courses approved that make it is nearly impossible for new providers or courses to be authorized.

Additionally, there are some common concerns among the general public, especially among those not yet familiar with virtual schooling. These include concerns about age-appropriate computer time/use for younger students, student socialization, and the effectiveness of online learning. These concerns notwithstanding, there are three key issues for opponents of virtual schools:

- At the least, virtual charter schools are subject to all the political heat facing charter schools in general.
- Virtual schools that contract with for-profit providers (such as Connections Academy and K12 Inc.) for school management services also face the same battles over the merits of education management organizations (EMOs). Most full-time online students attend schools that are managed by EMOs. Some charter school authorizers are concerned about the independence of the governing boards of these schools.
- Virtual schools that generate inter-district competition for students (since students in some states can enroll in virtual schools far away from their home districts) tend to aggravate superintendents and school board members strapped for cash due to declining enrollment or other factors, especially as budgets are slashed across the board.

> Well-placed expenditures on trained personnel, effective technology, design, maintenance, upgrades, and evaluations will to a great degree determine program quality.

This confluence of virtual schooling with other controversial issues has led not just to interesting debates in district offices and state capitals, but also to several lawsuits (including cases in Ohio, Pennsylvania, Minnesota, and Wisconsin, none of which have been successful). Note that this opposition rages regardless of student achievement.

Determining the Cost of Virtual Schooling

Many policymakers and program administrators hope that online and blended learning options will reduce costs during this period of unprecedented budget cuts. Unfortunately, the cost of online learning is neither well understood nor easily calculated. Part of the problem is that the equation involves too many variables.

The most important of these variables is *quality*: well-placed expenditures on trained personnel, effective technology, design, maintenance, upgrades, and evaluations will to a great degree determine program quality. Questions about the cost of online schools have been asked for many years, but the answers that were provided nearly a decade ago still hold true. A 2004 Colorado Department of Education report, for example, mused: "Attempting to address the question of how much online education costs requires making numerous assumptions that greatly influence the answer. An analogous question is 'How much does a car cost?'... [A] car that provides basic transportation can cost a few thousand dollars or more than $30,000."

In 2010, this issue was debated at length in Georgia, where the Georgia Charter Schools Commission authorized two virtual schools to open that fall. However, the commission set state funding of $3,500 per pupil less a 3 percent administrative fee, compared to about $5,251 per student for other public school students in the state. The two schools stated that they could not afford to open; the commission debated the issue for months until deciding to raise the per pupil funding for virtual charters to $5,800.

Cathy Cavanaugh, associate professor at the University of Florida, authored the report, *"Getting Students More Learning Time Online: Distance Education in Support of Expanded Learning Time in K–12 Schools."* She reported that the average yearly cost of online learning (in a limited sample) was $4,300 per-pupil in 2008, whereas the

national average cost per student in a traditional public school in 2006 was more than $9,100. However, this is a limited sample that fails to account for countervailing cost increases in critical areas of virtual school operations. For example, while most virtual schools can save on facility and transportation expenses, their hardware, software, and logistical costs are often much higher than those of traditional schools. Initial startup expenses will also be significant, as there is likely to be a significant amount of teacher and administrator training, in addition to initial technology purchases.

Various other studies have tackled this question of cost and generated a wide range of answers, from $300 per course per semester for online courses to $7,485 per pupil for comprehensive virtual schools, with many estimates in between. Many have asked whether it is reasonable and fair—or in fact inequitable and discriminatory—to provide less funding to certain students simply because they are enrolled in what is considered a high-tech program. According to *Education Week*, "The funding models for these virtual schools vary as much as the states themselves." In the end, the "cost" of virtual schools may be determined not by some magic formula, but by the price-setting mechanism by which government entities determine per-pupil revenue levels for all public school students (e.g., schools' budgets based on the available resources allocated). Meanwhile, most full-time virtual schools are underfunded compared to other schools, and most part-time online programs are forced to rely on tuition or grants. In the end, policymakers will have to balance these competing claims and determine whether virtual schools should be funded any differently than other public schools.

The Current State of Virtual Charters

Although the landscape is shifting rapidly (and sometimes dramatically), we can point to five observations about virtual charter schools (see also "Five Trends on the Horizon"):

1. The laws of education still hold. Just putting the word "virtual" in front of the word "school" doesn't make it good (or bad, or even innovative). What matters is the school's ability to educate children as shown in successful student outcomes. The point of virtual learning is *learning*, not technology. Without effective teachers, good content, curriculum, instruction, training, resources, support, and leadership, virtual schools will flounder. In good virtual schools, the technology is so powerful, well designed, and intuitive that it becomes an afterthought. In great virtual schools, the technology can transform education to create a more powerful "product" than what is found in most traditional classroom.

Just putting the word "virtual" in front of the word "school" doesn't make it good (or bad, or even innovative). What matters is the school's ability to educate children as shown in successful student outcomes.

2. The politics of education also still hold. Virtual charter schools run into the same roadblocks from special-interest groups that other innovations encounter, usually centering on power, competition, and money.
3. Virtual programs are showing that interaction is not lost in an online environment. By expanding the set of communication tools available to students, teachers, parents, and administrators, these groups are communicating more than ever before.
4. Virtual charter schools are not for everybody (nor are they meant to be). Virtual schools provide an opportunity to meet the needs of a group of students who might not otherwise find success in a traditional school environment. Online schools must be held to the same standards as traditional brick-and-mortar public schools, meaning they cannot discriminate against students with special needs or English language learners, or based on race, ethnicity, class, religion, or gender. Students should have the ability to choose an online school and should not be forced into an online option.
5. This is just the beginning. Over a century, we have witnessed the gradual evolution of distance learning. We don't know what's next, but we can predict with confidence that the educational benefits (improved student performance as well as increased graduation rates) will increase over time as the technology advances—along with our understanding of how best to use it.

Conclusion: The Ever-Changing Online Learning Landscape

Online schools—charter and otherwise—are here to stay. They are also still in the early stages of development, and it is likely that online schools will continue to evolve rapidly and be in the forefront of innovation in education.

The most important trend in online learning is towards schools that blend online and face-to-face instruction. While full-time online schools and classes are still much more common than blended schools and classes, blended learning is the focal point of innovation. The reasons are simple: There is a natural limit to the percentage of students who seek a fully online education, and physical buildings are likely to continue to be the place where students "go to school" for the foreseeable future.

There is already significant growth in schools that blend online and face-to-face instruction across a continuum, ranging from nearly all online with a few onsite meetings to nearly all-traditional classroom instruction with an infusion of online content or tools. The schools that are truly innovative often allow students a level of control over their education—the pace at which they learn, the ways in which they access instructional materials—that is new to most schools and students.

Blended schools are also experimenting with adaptive systems that "learn" how best to teach individual students based on their accumulated knowledge, content and skills gaps, learning styles, and interests—and that adapt their approach based on this information. These systems allow for competency-based pathways to learning that better measure student success.

These trends hold promise for transforming education, but they also challenge charter school authorizers in new ways. Just as authorizers and other policymakers are recognizing that their authorizing and oversight processes may not fully account for online schools, the ground is shifting. They will be asked increasingly to authorize charter schools that combine aspects of online and onsite education, including reviewing charter school applications that propose instructional models that have not yet been extensively tested. Authorizers will have to consider how to define categories of online schools, blended learning schools, and entirely onsite schools, with the possibility of having different application questions or processes for each type of school. Finding the right balance between ensuring quality, but yet not stifling innovation, may be the most difficult challenge that authorizers and policymakers face as they contemplate twenty-first century teaching and learning.

Authorizing Matters Issue Briefs are a publication of the National Association of Charter School Authorizers (NACSA), the trusted resource and innovative leader working with public officials and education leaders to increase the number of high-quality charter schools in cities and states across the nation. NACSA provides training, consulting, and policy guidance to authorizers and education leaders interested in increasing the number of high quality schools and improving student outcomes.

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Glossary of Key Virtual School Terms

"virtual" = "online" = "cyber" = "e-" school

Asynchronous: Not occurring at the same time (not in "real time"). In asynchronous learning programs, the learner controls the time, place, and content encountered (examples: threaded discussion boards, Web-based training courses, searchable databases, knowledge portals, testing tools, help systems, recordings of synchronous courses).

Blended or hybrid learning: Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace. *(Innosight Institute; The Rise of Blended Learning)*

Correspondence program: A learning program that offers instruction by mail or email, sending lessons and examinations to a student. Correspondence programs were the first distance learning programs.

Course Management System (CMS) or Learning Management System (LMS): The technology platform through which online courses are offered. A CMS includes software for the creation and editing of course content, communication tools, assessment tools, and other features designed to enhance access and ease of use.

Distance learning/education: Educational activity in which the participants are separated by location, time, or both (e.g., correspondence courses, online learning, videoconferencing).

E-learning: An electronic instructional approach that covers a wide set of applications and processes such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. Content can be delivered by the Internet, Intranet, Extranet, audiotape, videotape, satellite broadcast, interactive TV, or CD-ROM. Also known as virtual, online, or cyber learning.

Instructional design: The orchestration of different media—such as online, offline, images, sound—into compelling and effective instructional units.

Online learning: Teacher-led education in which instruction and content are delivered primarily via the Internet, with the student and teacher separated geographically.

Synchronous: Occurring at the same time (e.g., in "real time"). Synchronous learning programs involve real-time interaction between a facilitator and participants (examples: instant messaging, Webcasts, Webinars, video conferencing, and live online chats).

Virtual charter school: An independent public school of choice governed by its own nonprofit board that offers K–12 courses through Internet-based methods, with time and/or distance separating the teacher and learner.

Virtual school: An educational organization that offers K–12 courses through Internet-based methods, with time and/or distance separating the teacher and learner. Students enroll to earn credit towards grade-level advancement and/or graduation.

National Association of
Charter School Authorizers
105 W. Adams Street, Suite 3500
Chicago, IL 60603-6253

www.qualitycharters.org

About the Authors

Greg Vanourek is an adjunct faculty member at the Royal Institute of Technology's Stockholm School of Entrepreneurship. He has served as a founding executive team member and senior vice president of school development for K12 Inc., vice president for programs at the Thomas B. Fordham Foundation, research fellow at the Hudson Institute, and founder of Vanourek Consulting. He also co-authored the best selling-book Life Entrepreneurs.

The Evergreen Education Group works with the schools, state education agencies, state virtual schools, school districts, and companies that are improving educational opportunities and outcomes through online learning. Evergreen is a private consulting and advisory firm headquartered in Durango, Colorado, and founded in 2000. www.evergreenedgroup.com

ENDNOTES

[1] *The Rise of K–12 Blended Learning*, Michael B. Horn and Heather Staker, Innosight Institute, 2011

[2] Figure 2 is from *Keeping Pace with K–12 Online Learning (2009)*, which adapted the figure from the first version of this paper, published in 2006.

[3] *A National Primer on K–12 Online Learning (Version 2, 2010)*, by Matthew Wicks and published by the International Association for K–12 Online Learning (iNACOL), http://www.inacol.org/research/docs/iNCL_NationalPrimerv22010-web.pdf

[4] U.S. Department of Education, *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*. http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf. Many of the studies analyzed in the report were from post-secondary education.

NACSA develops quality authorizing environments that lead to a greater number of quality charter schools. Learn more about NACSA at **www.qualitycharters.org**.