What Is Educational Entrepreneurship?

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When Fred Smith created Federal Express in 1971, few thought it was possible to ship a package overnight without paying a fortune. Smith had a vision for an express delivery service that would operate differently than the current postal system, and would also light a competitive fire under the sluggish U.S. Postal Service. Most everyone thought what he wanted to do was impossible—even the professor who gave him a C on the paper he wrote outlining the concept as an undergraduate at Yale University, allegedly noting, "The concept is interesting and well formed, but … the idea must be feasible." Federal Express went on to become a successful shipping company that changed customer expectations by demonstrating that overnight delivery was possible. And the Postal Service responded by introducing similar services much more quickly than they would otherwise have done.

Fred Smith is a quintessential entrepreneur: He had a vision for a new approach to solving a problem and created a new organization to carry out that vision. In doing so, he redefined our sense of what is possible and changed the dynamics of an entire industry. This paper will focus on education entrepreneurs who share many of these characteristics but who do so in the hope of catalyzing massive improvement in K-12 public education. Based on more than fifteen years of experience with these education entrepreneurs, we will share our perspective on the role, the potential to have an impact, and the unique needs of education entrepreneurs. We will define education entrepreneurs as visionary thinkers who create new for-profit or nonprofit organizations from scratch that redefine our sense of what is possible. These organizations stand separate and independent from existing institutions like public school districts and teacher colleges; as such, they and the entrepreneurs who start them have the potential to spark more rapid, dramatic change than might otherwise be created by status quo organizations.

Sustainable transformation of public education will also require the work of other important change agents—including "intrapreneurs," who create new entrepreneurial approaches *within* a system. However, this paper will focus exclusively on education entrepreneurs who operate *outside* the system because of the unique nature of the resources and support they need to be successful in this endeavor. Whether they are creating new services, schools or tools, education entrepreneurs—particularly those who seek to have a major impact on the system itself— are worthy of our consideration because they are motivated by a novel vision for how public education could be a different and better system and they create new organizations to carry out that vision. If they receive the appropriate resources, education entrepreneurs may very well lead the public education system toward vastly improved outcomes.

WHAT IS AN EDUCATION ENTREPRENEUR?

> *The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man.*
> —George Bernard Shaw[1]

Historically, much of the scholarship on entrepreneurs blurs the distinction between innovators and entrepreneurs, who share many characteristics. For the purposes of this chapter, we will define education entrepreneurs quite narrowly as a rare breed of innovator whose characteristics and activities may lead to the transformation—not merely the slight improvement—of the public education system. This definition is grounded in author Kim Smith's experience as an entrepreneur and funder in the nonprofit and for-profit sectors for the past fifteen years. We believe it is important to understand (1) the qualities that define entrepreneurs in general, (2) those that distinguish social entrepreneurs, and (3) those that make social entrepreneurs such a potentially powerful force within public education today.

Entrepreneurs

In general, it is important to understand that entrepreneurs have a vision for a better way of doing things, thinking beyond the constraints of current rules and resources. Perhaps more importantly, they have the passion and sense of urgency that literally compels them to take the risks necessary to realize that vision. They create new organizations to make the changes they want to see in the world—and by doing so, they inspire others to follow.

Be visionary thinkers. Entrepreneurs' most unique characteristic is that they are able to think beyond the current rules and resources to see a different way of working. One of the classic entrepreneurship textbooks, *New Business Ventures and the Entrepreneur*, points out that while most leaders plan around the resources that are currently available, entrepreneurs are driven by their perception of opportunity, irrespective of resources.[2] As such, in the words of successful Silicon Valley venture capitalist John Doerr, "entrepreneurs do *more* than anyone thinks possible with *less* than anyone thinks possible." Where many would ask "*Can* this be done?" entrepreneurs are hard-wired to ask instead "*How* can this be done?" As a consequence, entrepreneurs have the power to fundamentally redefine our sense of what is possible.

Start new organizations. Good entrepreneurs are both *mavericks* and *institution-builders*, as technology entrepreneur and former President of the California state board of education Reed Hastings has noted. For entrepreneurs, innovative ideas simply aren't enough: Their sense of urgency and drive to achieve leads them to take action by creating new organizations that will make their vision a reality. Here, our definition differs from that offered by other chapters in this volume. Although "intrapreneurs"—who have a vision for changing an organization from the inside—can also be incredibly important change agents, they are different from entrepreneurs. The single greatest distinction between them seems to be their tolerance for risk and for

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frustration. Intrapreneurs tend to have a lower risk profile, but a higher tolerance for the

frustration caused by trying to create change within a status quo organization. In contrast,

entrepreneurs have a lower tolerance for this sort of frustration and a higher tolerance for risk,

leading them to strike out on their own.

 Believe they can change the way things are done. Psychologist Martin Seligman has

found that certain people have developed "learned optimism," in which they believe successes

are the result of their own hard work while seeing setbacks as external and temporary hurdles

they need to overcome.[3] This trait often goes hand in hand with an "internal locus of control," or

belief that one can control his or her own fate, rather than feeling controlled by circumstance.

Taken together, these characteristics allow entrepreneurs to face the potential failure inherent in

creating a new organization by focusing on likely success and overcoming all hurdles that stand

in the way.

Social Entrepreneurs

 Within the realm of entrepreneurship, the social entrepreneur has particular potential for

transforming public education. The social entrepreneur's vision is not merely to create something

new in the pursuit of fame or fortune, but rather to do so in the quest to make the world a better

place. These entrepreneurs may create social-purpose ventures through either a for-profit or

nonprofit structure, but having a positive impact on society is a top priority.

 A leading thinker on social entrepreneurs, Professor Greg Dees of Duke University's

Fuqua School of Business, notes that social entrepreneurs adopt a mission to create and sustain

social value (not just private value), and that they exhibit heightened accountability to the

constituencies served and for the outcomes created.[4] The social entrepreneurs in education under

consideration in this chapter have great potential for impact today because they are focused on making a significant difference on outcomes of the K-12 system *as a whole,* particularly for those students and communities who are currently underserved, rather than just for a limited set of students.

Social entrepreneurs in education are also highly focused on outcomes. Although their organizations sit "outside" the public education system, education entrepreneurs are still accountable to it; they may need to attract students to a new public charter school, entice principal candidates to apply for a new preparation program, or deliver improved outcomes in order to maintain a district as a customer. As such, they have a customer-focused orientation and a consistent focus on outcomes, critical factors that allow them to compete with existing providers for attention, funds, and sales.

Social Entrepreneurs in Education

Within education, social entrepreneurs create many different types of organizations that seek to have a positive impact on the broader system. Some do this by creating a new supply of public schools and school systems. For example, across the country, a number of nonprofit charter management organizations have cropped up to address the diverse needs of underserved urban communities by creating new centrally-managed networks of small public charter schools. Other education entrepreneurs instead create organizations that seek to enhance the capacity of the existing public school system. These include developers of alternative preparation or support programs for teachers and leaders, as well as creators of products and services that help teachers and leaders with instruction, administration, and management.

The power of these entrepreneurs in education is not only as developers of alternative sources of teachers, leaders, schools and tools, but also as change agents whose efforts spur change in the larger system. As Harvard Business School professor Clay Christensen has found in his studies of business, "an organization cannot disrupt itself." In other words, organizations charged with serving a current customer base can only "sustain" and take change so far, while new "disruptive" innovations are the ones that move industries forward by quantum leaps.[5] This explains why, despite the best of intentions, educators and policymakers have found it impossible to achieve better outcomes within a bureaucratic structure designed more than a century ago.

At this critical point in public education, entrepreneurs have three crucial roles.

As change agents. Entrepreneurs can demonstrate what is possible when resources are used differently and point the way toward how policy and practice might be changed in light of what they accomplish. As such, their work has a direct impact, as well as a "catalytic impact" that reverberates throughout the system. For example, Teach For America has directly affected the lives of more than a million students and of the fourteen thousand corps members it has trained to serve as teachers in high-need schools. But its success has also re-shaped broader policy conversations around the recruitment and preparation of teachers for high-need urban and rural settings. Another way to consider this is as "co-opetition"—a combination of competition and cooperation in which entrepreneurs create additional capacity for school systems (cooperation) while also applying pressure for change within the system (competition).

As venues for new skill sets and mindsets. The organizations that entrepreneurs create often have the kind of culture that draws and retains achievement-oriented employees who might not otherwise be involved in the more bureaucratic public education system. In exchange for a

merit-based culture where they can see significant results from their efforts, these people are willing to give up the security of seniority-based progression within the traditional school system. "I have all the agility in the world—and I have nobody to blame but myself if I don't succeed," says Larry Rosenstock, a former urban public school principal turned entrepreneur who founded High Tech High Learning, a nonprofit charter school management organization based in San Diego.

As developers of learning laboratories where experimentation and ongoing learning are encouraged. As problem-solvers, entrepreneurs are constant learners who regularly review progress and correct course. Since this ongoing learning process is exactly what we are asking our public schools to embrace today, entrepreneurial organizations can demonstrate how this new dynamic might work in a school system. For example, entrepreneurs that create national or regional systems of charter schools are both increasing the supply of high-quality public schools and learning important lessons about designing aligned systems of schools as they create them from scratch.

WHAT CREATES OPPORTUNITY FOR EDUCATION ENTREPRENEURS?

> *The individual entrepreneur is a person who perceives opportunity, finds the pursuit of opportunity desirable in the context of his or her life situation, and believes that success is possible.*
> —Howard H. Stevenson and William A. Sahlman[6]

Entrepreneurs can be important change agents for large, complex systems that need dramatic improvement. But what specifically opens the door for entrepreneurs to make this difference? In general, something changes suddenly or slowly over time, requiring new problem-solving approaches. In most cases, many changes are happening simultaneously, creating a

swirling eddy of both challenges and opportunities for entrepreneurs. Here, we attempt to detail the different types of change so that we can better understand what resources education entrepreneurs need.

Change in Expectations

The current system of K-12 public schooling was created in a social and economic context that was entirely different from our current one. Compulsory public education arose in the early 1900s as a way of ensuring that the massive influx of immigrants would be good American citizens and productive workers in the country's emerging industrial economy. At the time, the national population was less than seventy-five million people, with only a small portion of school-aged children attending school and an even smaller fraction of those completing high school or college.[7] The economy was driven by agriculture and industry, which offered the opportunity for a variety of skill levels to earn a living wage, often without a formal education.

On every front, this picture has changed dramatically. The national population has tripled to nearly three hundred million, with forty-eight million students in public schools.[8] Prompted by the triumphs of the civil rights movement, we expect more of our public schools today: it is no longer sufficient for a small percentage of children to be prepared for success in college. Our nation's postindustrial and increasingly global economy is now driven by knowledge and by higher-order skills like symbolic reasoning, analysis, and communication.

In other words, the public's expectations of the system have ballooned, such that public schools are now expected to serve all children equally and well. This change in expectations demands innovative new approaches. Many expect that nearly all high school students should graduate ready to attend college, for example, which would be more than triple the current rate of 30 percent.[9] But it's not likely that we have—or should have—the political will to triple

spending in order to triple effectiveness, notes Kevin Hall, a former entrepreneur who is now at The Broad Foundation. "The delivery system simply has to change to be more productive," says Hall. "Entrepreneurs can either access new resources or put resources together in different ways to get to different outcomes." In other words, this enormous challenge has created opportunities for entrepreneurs to find more efficient, effective ways of ensuring that all students receive a high-quality public education.

Change in Market Structure

Because public education is a public-sector institution charged with serving the public good, public policy is the most common tool for changing its structure. Whether at the federal, state, or local level, public policy shifts can create entrepreneurial opportunity by requiring the people within a system to think differently, and also by creating new "turf" to which nobody has yet laid claim.

One of the most significant policy shifts over the last several decades has been the movement toward standards and accountability. As the expectations for public schools have increased, so have the mechanisms for specifying what students should know and be able to do (in the form of state standards), measuring whether they reach those standards (assessment), and, more recently, imposing sanctions on schools and school systems that fail to improve student outcomes (accountability).

Accountability policies have introduced a number of opportunities—some might say "pain points"—that entrepreneurs can address. For example, the No Child Left Behind Act (NCLB) has created opportunities for entrepreneurs to provide supplemental education services for students whose schools have not achieved adequate yearly progress (AYP) for three years in a row. At the state level, policies that mandate the turnaround of chronically failing schools have

created demand for additional capacity to manage these schools. In Philadelphia, state-level accountability has led to a change in the structure of the entire school system to support a portfolio of entrepreneurs. Since the state took over the district in 2001, its School Reform Commission has contracted with a variety of entrepreneurial education providers to manage the city's lowest-performing schools.

Because the standards and accountability movements have begun to define desired learning outcomes and freed up the means for getting there, policymakers have created opportunities for entrepreneurs to develop new approaches to schooling. State charter school laws allow individuals and groups to create new public schools that are supported with public dollars but managed independently. By specifying the expected school performance in the school's "charter," these policies encourage entrepreneurship by allowing charter school operators to use their own approach to achieve those goals. These policies have spawned an entire subindustry of nearly 3,500 charter schools in forty states and the District of Columbia, serving nearly one million students.[10] The first wave of charter schools consisted largely of individual charter schools, but these schools have been joined by a diverse array of entrepreneurs who seek to build systems of multiple charter schools.

Policies that specify outcomes but allow different approaches have also enabled entrepreneurs to create alternative programs for teacher certification and school leader licensure. One of the best-known examples of entrepreneurial innovation in this area is Teach For America, founded in 1989 by Wendy Kopp to recruit and prepare bright college graduates for two years of teaching in high-need classrooms. Because alternative credentialing regulations allowed for different approaches to preparation, Teach For America was able to develop innovative processes to prepare teachers—including stringent criteria for candidate selection and training

curriculum targeted at teachers who will serve in low-income areas. More recently, charter school systems like High Tech High and KIPP have begun developing their own residency-based models. And New Leaders for New Schools has taken advantage of this opportunity to develop a program for preparing urban principals in major cities across the country.

Taken together, public policies such as the ones described above have pushed public education in a new direction. Although most of our public education systems were designed to focus on *inputs* (dollars, hours, students served) and management processes evolved accordingly, the emphasis of these recent policies is now on *results* (skills achieved, content mastered, college attainment). This shift creates enormous opportunities for entrepreneurs to provide the requisite people, tools, and practices.

Change in Availability of Resources

Public policy can create new opportunities for entrepreneurs by changing the structure of the market. It can also create opportunity by reallocating resources—which usually means an increase or decrease in dollars available and who can access them. Recent examples include federal start-up grants that encourage the development of new charter schools and funds allocated for paying supplemental education service providers to tutor eligible students under the No Child Left Behind Act.

Other forces can also constrain or expand the resources available in public education. In the late 1990s, there was a substantial increase in the dollars invested via "venture capital," in which private investment firms pool monies in support of early-stage companies in exchange for a stake in their anticipated future success. Encouraged by the success of technology businesses on the stock market, the amount of money invested by venture capitalists increased from $2.8 billion in 1990 to more than $100 billion in 2000.[11] Though much of this capital was invested in

general technology infrastructure and Internet-based businesses, a great deal of new capital was available to education entrepreneurs, to the tune of $2.9 billion in 2000 (including investments in K-12, higher education, and corporate training).[12] Since 2000, however, the venture capital market has cooled in general and in education specifically, limiting the amount of private funding available to for-profit education entrepreneurs.

The spigots of philanthropic capital also open up and close off opportunities. Newer education foundations such as The Broad Foundation, the Pisces Foundation, and The Walton Family Foundation have shown a willingness to invest in new entrepreneurial education organizations. The Bill & Melinda Gates Foundation has invested more than $2 billion in transforming high schools since 2000, creating a market for entrepreneurs to create new public charter schools, develop new district schools, and break down large existing high schools into small schools.

Sometimes, entrepreneurs themselves push the structure of the market and its corresponding resources in new directions. One of the best examples here is the work of New American Schools (NAS), founded in 1992 by a former Xerox executive to encourage the development of new whole-school reform models. With more than $140 million in funding from the private sector, NAS seeded dozens of diverse new school models, including Expeditionary Learning Outward Bound and America's Choice. The effort was further leveraged in 1997 by the establishment of federal Comprehensive School Reform legislation that earmarked hundreds of millions of dollars per year to such programs. As such, New American Schools is a good example of the entrepreneurial change process: Private experiments on organizing and using resources differently lead to public recognition and support, and a shift in the way things are

done with public funds (see figure 1). Ideally, public policy would include repetitions of this

cycle, with new entrepreneurial experiments and lessons continuing to inform policy over time.

Figure 1: How Entrepreneurs Catalyze Systemwide Change
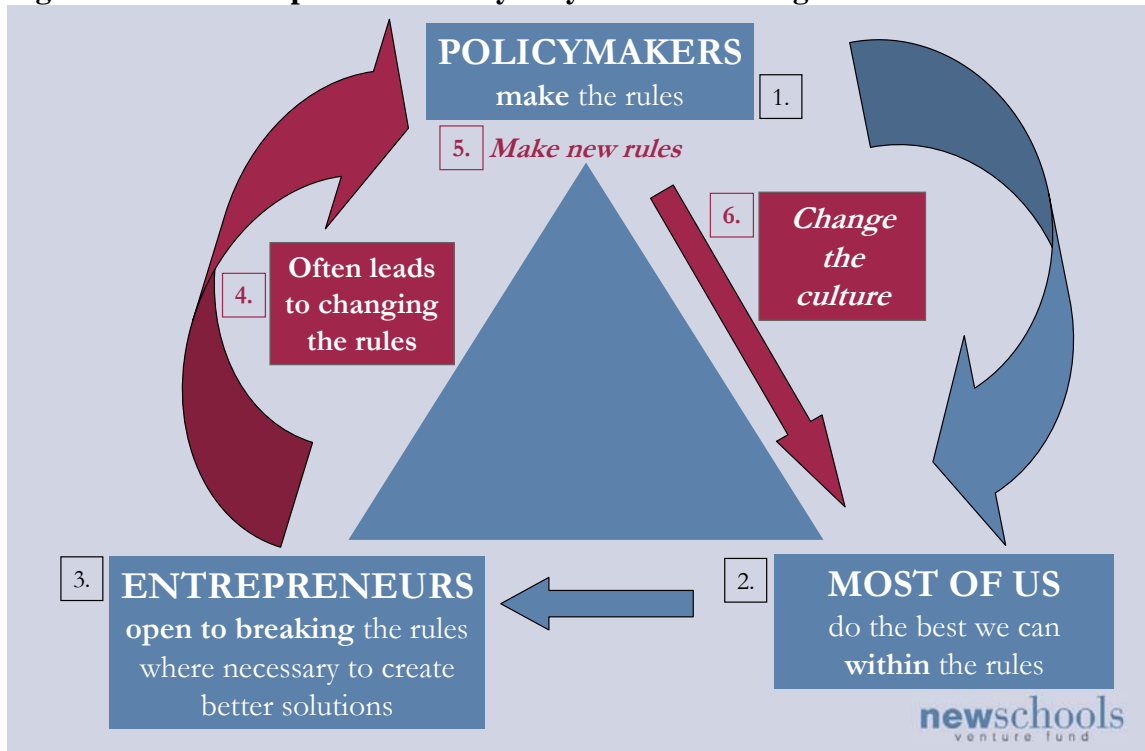
Source: NewSchools Venture Fund

New Knowledge Emerges

New knowledge creates opportunity for all kinds of change in education. Sometimes this

new knowledge is generated from *within* the field of education, such as when entrepreneurs

create a new organization based on a new (or underutilized) approach to teaching that they find

to be effective. For example, the founders of the Knowledge Is Power Program (KIPP), Dave

Levin and Mike Feinberg, were heavily influenced by the no-nonsense approach of both fellow

teacher Harriet Ball and successful Los Angeles teacher Rafe Esquith. Today, KIPP's model

emphasizes many of the attributes that Ball and Esquith had found successful, with Levin and

Feinberg turning these insights into an entire school model.

But new knowledge can also come from *outside* the field of education, such as innovations in technology. The pace of technology change has been swift, with computing power doubling every 18 months.[13] Entrepreneurs have been quicker to take up the challenge of applying technology to the public education sector, while private companies have been quick to embrace technology as a way of making their products and services better, faster, and cheaper. Public school systems have been much slower to employ these tools.

In any sector, technology is simply a tool for doing things *differently*—and, when it works well, for doing things *better*. In public education, "better" can mean improved outcomes for students, or increased productivity in which students, teachers, or leaders do the same (or more) work in less time. Public education will need to make use of technology in both of these ways in order to achieve better results without massive infusions of people or capital.

Technology should enable teachers and leaders to use their time more efficiently, allowing them to minimize administrative tasks, maximize time spent with students, and tailor instruction and support to the specific needs of students. In order to understand the ways in which technology has created opportunities for education entrepreneurs, then, it is useful to consider the basic cycle of teaching and learning: assessment of student learning, interpretation of those data, planning for future action, and instruction—as well as overall management of this process itself.

Assessment. Schools and school systems have always assessed student learning through a variety of measures, ranging from homework to pop quizzes to final projects and presentations. As the standards and accountability movements have taken hold, assessment has become more formalized and standardized across classrooms, schools, systems, and states. Technology has played a substantial role in this development: Since the 1970s, the now-ubiquitous Scan-Tron

"bubble" test format has advanced the assessment of student learning in a standardized, cost-effective way that helped make the results widely available. Many public school systems have also added interim assessments throughout the year as a way to gauge student progress and inform instruction, and technology has lightened the burden of administering and scoring these tests. Targeting literacy in the early grades, for-profit startup Wireless Generation has developed software that runs on handheld devices to allow teachers to more quickly record the results of observational assessments they conduct among students. Once the assessment information is uploaded into a computer, the software creates reports for teachers that help them target their instruction accordingly. The company's software is currently being used by approximately seventy-five thousand teachers in more than forty states. Another for-profit company, Edusoft (now owned by major publisher Houghton Mifflin), has developed scanning technology used by more than four hundred districts that allows teachers to scan multiple-choice tests on plain paper and upload results into a database for immediate analysis. Technology might also be used to create more sophisticated assessments that measure more complex skills like critical thinking, but entrepreneurs have not yet adequately addressed this area.

Interpretation. With the increasing frequency and use of standardized assessments, there has been a corresponding need for ways to make sense of all these new data. Technology entrepreneurs are beginning to fill this gap. For example, The Grow Network (now owned by major education publisher McGraw-Hill) pioneered the development of user-friendly reports on students' standardized test performance that teachers and parents can use for ongoing instruction. Through its website, Grow also provides access to recommended instructional activities based on student needs identified by test results.

Planning. One of the ways that technology can be used in public education is by streamlining the way educators plan their activities. Some entrepreneurs are tackling this at the school level, providing tools for planning instruction. One such firm is Edgenuity, a for-profit start-up that has developed an instructional management system that links academic standards with curriculum, student performance data, and other information. Now in use by a handful of districts, Edgenuity's software allows teachers and principals to track the scope and sequence of their curriculum via the Internet, rather than in bulky, hard-to-access binders. Another component of planning involves linking student performance data to changes in professional development. Here, for-profit provider Teachscape offers online professional development using the video case method, allowing teachers to see how instructional strategies actually look in real classrooms—without traveling to other schools or districts.

Instruction. Despite advances in technology, the basic structure of teaching and learning itself has stayed relatively consistent: Teachers still instruct groups of students face-to-face. However, the pervasiveness of personal computers and Internet access in schools—driven in large part by the federal eRate program that has allocated more than $10 billion toward Internet infrastructure in schools and libraries—has enabled some entrepreneurs to use technology to enhance instruction. In the 1990s, former math teacher Bill Hadley blended his insights into effective algebra instruction with cognitive science research from Carnegie Mellon University to create Carnegie Learning. The for-profit company's algebra program is being used by more than 275,000 students across the country and integrates print and computer-based curricula, as well as adaptive assessments to pinpoint student mastery and learning challenges so teachers can focus on precise student needs.

Although entrepreneurs have begun to make inroads into bringing technology to bear on the teaching and learning cycle, there are a number of opportunities that remain unexploited. One area is the integration of these products and services: Because there is no soup-to-nuts solution that cuts across assessment, interpretation, planning, instruction and management, districts must cobble together various technology products into something resembling a comprehensive approach. Further, technology has the potential to transform not only teaching and learning, but also the management of school systems by providing ready access to a coherent picture of district operations.

WHAT RESOURCES DO EDUCATION ENTREPRENEURS NEED TO TAKE ADVANTAGE OF THESE OPPORTUNITIES?

> *"The entrepreneur shifts economic resources out of an area of lower and into an area of higher productivity and greater yield."*
> J.B. Say, French economist who is said to have coined the term "entrepreneur"[14]

An entrepreneur's pursuit starts with identifying an opportunity. But this opportunity must be matched with resources in order to have an impact. In the private sector, there is a sophisticated market of venture capital investors that differentiate themselves by industry and stage; some may provide money to very-early-stage private companies developing wireless technology, while others may prefer to invest in more mature companies developing medical devices. Because they can observe trends across the many entrepreneurial ventures they have supported, they bring great value to the entrepreneurs they support. These venture capitalists provide not only funding, but also strategic guidance; tactical assistance with building a team and board; connections to suppliers, customers and funders; and help with identifying challenges of growth that the entrepreneur might not otherwise anticipate.

Taken together, these resources can be categorized into three groups, each of which will be discussed in detail below: financial capital, human capital, and intellectual capital. Just like any other entrepreneurs, education entrepreneurs must rely on a variety of different people and organizations in their quest for the money, people, and ideas they need to turn their vision into reality.

Financial Capital

Money is the most tangible of the resources entrepreneurs need, although it is by no means simple to obtain in the complex education landscape. Though all education entrepreneurs need financing to get started (start-up capital) and to support growth (growth capital), the capital market for for-profit organizations is markedly different from the one that nonprofit organizations can access (see figure 2). Furthermore, once an entrepreneurial organization reaches its more mature stages, it needs money to keep it going (sustaining capital), which may mean fundraising or revenue from the sale of a product or service.

Figure 2. Types of Financial Support Needed

		Startup	*Growth*	*Sustaining*
Corporate Structure	**For-profit**	Equity investments from venture capital firms or "angel" investors	Equity investments from later-stage venture capital firms	Revenue from sales of product or service
	Nonprofit	Grants from individual donors, foundations and public sources	Grants from foundations and public sources Program-related investments (loans from foundations)	Continued fundraising for grants Revenue from sales of product or service

Start-Up Capital. Education entrepreneurs creating for-profit enterprises traditionally

raise their initial capital from individuals ("angel investors") or venture capital firms. These

investors put up cash in exchange for "equity," or an ownership stake in the new organization,

expecting that their investment will yield a financial return when the company is acquired or

sells shares on the public stock market. Even though $500 billion is spent each year in K-12

public education, the challenges of operating a business in this sector means that only a few

committed venture capital firms will invest in entrepreneurs addressing this enormous market. In

2004, just over $50 million was privately invested in businesses addressing the preK-12 segment,

according to market research firm Eduventures[15]. Even those education entrepreneurs who do

secure venture capital funding find that there is little patience among investors for the kind of

slow growth required to create a high-quality product or service and develop trust among the

customer base. For-profit investors often prioritize short-term growth in revenues rather than

building a sustainable company for the long term. This can be at odds with entrepreneurs'

understanding of what nonprofit scholar Jed Emerson has called the "blended value

proposition"—that over the long term, investments in organizations with strong results are likely

to yield higher revenues and profits.

On the nonprofit side, education entrepreneurs generally raise their startup capital from

venture philanthropy firms like NewSchools, individual donors, and foundations. Only a few

foundations are comfortable with taking a risk on entrepreneurial education organizations who

intend to scale up their operations. Those that do make these early grants—usually multi-million-

dollar grants over the course of several years—tend to be younger foundations, such as The

Broad Foundation and the Bill & Melinda Gates Foundation. Until these new foundations

arrived, education grantmakers tended to provide these early grants only in small increments,

forcing the entrepreneur to spend enormous amounts of time and energy on fundraising from multiple donors. Nonprofit funders also tend to be risk-averse, fearful of the stigma of failure that often accompanies large initiatives like the $1 billion Annenberg Challenge, a public-private partnership sponsored by the Annenberg Foundation whose mediocre results were widely characterized as ineffective. On the flip side, foundation leaders are rarely ousted for failure to have an impact. Because of this dynamic, foundation program officers find it far easier to say "yes" to a host of small grants than to go out on a limb with a few concentrated bets.

Growth Capital. Finding capital to start a business is challenging, but fundraising for growth can be even more complex for education entrepreneurs. The news is better for for-profit companies who have a good track record: Venture capital firms such as Quad Ventures are willing to invest in growth for later-stage education organizations with good early results, and even venture capital firms that don't focus on education are willing to entertain the notion if they see a successful business emerging.

For nonprofits, the fundraising picture for growth is even more daunting. In some ways, growing nonprofit organizations are more appealing to foundations because they are perceived as less risky. However, in order to have a real impact on the public education system, these organizations must reach a sufficient scale in operations and staff, and that costs money. Nonprofit entrepreneurs struggle to raise the kind of large, multiyear grants necessary to support this kind of growth for the same reasons they face in the start-up stage. There is also a perverse incentive for growing nonprofit organizations: the better the organization is doing, the more likely a donor is to drop their support, believing they have done their part or are no longer needed. As such, many foundations seem willing to support strong nonprofit organizations to

expand on a limited scale, but few are willing to sustain an organization as it grows to significant scale over time.

Moreover, it is especially difficult to raise large amounts of funding from foundations through traditional means. According to federal regulations, program officers need only spend 5 percent of the foundation's total assets each year in the form of grants and other expenses. The other 95 percent of a foundation's assets are generally not used to support programs but rather form its "endowment," usually invested for the long term. Nonprofit education entrepreneurs may need to tap into these endowments in order to gain access to the sizable funds they need for scale and sustainability. One way to do this is with "program-related investments," which are loans that come from endowment funds but are expected to earn below-market rates in return for supporting social impact and programmatic priorities. For example, several foundations, including The Walton Family Foundation and The Annie E. Casey Foundation, have made program-related investments in funds that will help charter school entrepreneurs secure facilities for their schools. There is room for more such investments: nationwide, foundations hold nearly $500 billion in their endowments, but use just over $200 million of that for charitable loans or program-related investments, according to the Foundation Center—less than one-twentieth of one percent.[16]

Sustaining Capital. As figure 2 shows, entrepreneurial organizations attract capital to sustain their business by fundraising and generating revenues. Once their new organization is up and running, many education entrepreneurs bring in financial resources through earned income from the sale of products or services. On the nonprofit side, this is often problematic: Despite increasing acceptance of income-generating nonprofit organizations, few education entrepreneurs can sustain themselves on these revenues alone. Some find, for example, that the

allocation of money by public school districts is rigid, with little flexible funding available for new programs. As a result, although some nonprofit education entrepreneurs can support their organization's ongoing operations through public funding—such as by per-pupil dollars that flow to charter management organizations—most must do so through ongoing fundraising from individuals and foundations. On the other hand, for-profit education ventures generally sustain their businesses exclusively through revenues, bringing a separate set of challenges. The market is fragmented, with each state, district, and school governed by its own preferences and decisionmaking processes. Education entrepreneurs must also compete against large education publishers, who have substantial teams of salespeople, big bank accounts and decades-long relationships with district officials that often prevent serious consideration of products or services from new organizations.

For education entrepreneurs to succeed in public education, they require a more rational sales and distribution process that allows entrepreneurs with high-quality products or services to compete fairly against the publisher oligopolies. Customers within schools and districts also need help to better understand their needs and the available solutions—not to mention their future needs. In addition, small entrepreneurial organizations need assistance with navigating government relations: Large companies employ teams of people who comb through federal regulations for rules and grants that may give their business an edge, but smaller organizations can rarely afford this kind of capacity.

Human Capital

Business author Jim Collins, who has studied companies that consistently outperform their competition, found that those who did were able to get "the right people on the bus, the right people in the right seats, and the wrong people off the bus."[17] Indeed, finding and keeping

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the right people is the paramount challenge that education entrepreneurs—and indeed, the entire public education sector—face today.

Because their resources are often limited, all start-up organizations struggle to recruit the senior executives they need to start and manage the business. But entrepreneurs in education also face a few unique challenges, according to Amy Vernetti, an executive search specialist who has worked in both the business and education sectors. Because the existence of entrepreneurs in education is still a relatively new phenomenon, there are relatively few people experienced in starting and scaling up a new education organization. And as for experienced management talent in education more broadly, Vernetti notes, few school districts and education publishers "incubate" new management talent in the way that businesses like Procter & Gamble or Microsoft often do in the private sector. Entrepreneurs would also benefit from more executive search firms with the expertise and contacts to find senior-level managers for entrepreneurial organizations in K-12 education; the few firms who currently address this type of search within education tend to focus on higher education or on large education companies.

Although the specific mix of skills an entrepreneur needs to hire depends greatly on the type of organization being built, any new venture that is seeking social impact in public education will need what NewSchools refers to as a "hybrid team," with skills from across the education, business, nonprofit, and public sectors. Public education has as much operational and financial complexity as any business, the mission-driven character of a nonprofit, the content and social complexity inherent in education, and, of course, the need to be accountable to a diverse public. As such, education entrepreneurs need to surround themselves with skills and expertise from across these fields. For example, when lifelong educator Don Shalvey set out to create and manage Aspire Public Schools as a new system of charter schools, he needed someone to

develop the systems and structures such an ambitious new organization would need to succeed. So he brought on Gloria Lee as chief operating officer; she had a hybrid background as a former business consultant, manager of a university program that trained and coached teachers and school leaders, and a dual graduate degree in education and business. Also, because Shalvey would be focused on leading the entire system of schools, he hired Elise Darwish—an experienced educator who had been a teacher and instructional coordinator—to ensure that the instructional needs of schools were met.

In addition to accumulating experience across these sectors, there are several programs that prepare people for this "hybrid" work. Mike Kirst at Stanford University was a pioneer in offering the first "dual-degree" graduate program in business and education in the late 1970s, with other universities following suit. The Broad Center for the Management of School Systems—created by The Broad Foundation in Los Angeles—has several programs that prepare midcareer professionals and senior-level executives for roles in school districts. These sources aren't enough to meet the demands of the increasing number of entrepreneurial organizations in education, though: the Broad Center programs prepare about forty-five people per year, many of whom go straight into school districts, and a large percentage of those who receive dual degrees end up at consulting firms, investment banks or foundations. This leaves few available for hire by education entrepreneurs. More such preparation programs for hybrid leaders must be developed, especially those geared toward the demands of growing entrepreneurial organizations.

In addition to a great team, a strong board of directors is also crucial to an entrepreneurial organization's success throughout its lifecycle. Legally, a board of directors is charged with overseeing an organization to ensure that laws are followed and funds are put to appropriate use.

For entrepreneurial organizations, however, a board's importance reaches far beyond this basic governance role. In the start-up phase, the entrepreneur needs strategic guidance and tactical assistance from the board just to get the organization off the ground. In this formative time, for-profit organizations generally have a "venture-building" board made up of their early investors, who can make connections to potential customers, attract talent, and shape the business plan. Unfortunately, nonprofit entrepreneurs often start with either a "friends-and-family" board or one focused purely on fundraising, when what they really need is a board with expertise in new ventures. As the organization becomes more mature, nonprofit entrepreneurs usually need help with ongoing fundraising and thus may need to add board-level connections to prospective donors. Most education entrepreneurs find their board members in an ad hoc fashion through existing board members and investors; there is a need for a more efficient process, perhaps akin to boardnetUSA, a service that connects a broad range of nonprofit organizations with board members.

Intellectual Capital

Less tangible than human or financial capital—although closely tied to both—intellectual capital is equally crucial to fueling for entrepreneurial success. Intellectual capital may be thought of as the ideas, practices, and policies that feed entrepreneurs' ongoing understanding of where opportunities lie, what lessons can be learned from the work that is already happening, and what changes need to take place in order to maximize success. Contributors of intellectual capital may include investors and funders who can add value by contributing experience and insight that can help entrepreneurs build their organization and prepare for the next wave of challenges. Other sources of intellectual capital may include consulting firms, evaluators, think tanks, and policymakers.

As entrepreneurs grow their organizations to scale, many have found outside consulting firms useful sources of capacity and expertise. Some of the traditional management consulting firms—including McKinsey & Company, the Parthenon Group, and The Bridgespan Group, which is a nonprofit spin-off from Bain & Company—have begun to provide these services to education entrepreneurs. For example, drawing on work it has done with nonprofit organizations in other fields, The Bridgespan Group has helped several education entrepreneurs (including Aspire Public Schools, The Big Picture Company and Envision Schools, all of whom are creating systems of public charter schools) articulate their theory of change, which in turn has informed their growth strategies. However, it is worth noting that much of the recent influx of consulting talent into this field has been underwritten by a single source—the Bill & Melinda Gates Foundation—and so it remains to be seen whether these firms will stay and develop a broader base of expertise in K-12 public education.

Entrepreneurs also need outside evaluation firms to assess their efforts in order to establish credible evidence in support of their new approaches and learn what is (or isn't) working and why. The Center for Research on Education Outcomes at Stanford University's Hoover Institution, Mathematica Policy Research, and American Institutes for Research are among the evaluators who are currently doing such work, but there is room for additional players—especially those who can translate entrepreneurs' lessons into improved practice and policy.

Research is also a major component of intellectual capital that can fuel entrepreneurial activity. The U.S. Department of Education's research arm, the Institute of Education Sciences has an annual budget of about $500 million and is funding some basic research with that, but more research on how to improve teaching and learning would enable entrepreneurs to leverage

that knowledge by coming up with new ways to put research into practice. Some of the research that is most directly relevant to entrepreneurs' forward-thinking efforts today is coming from university centers like the Center on Reinventing Public Education at the University of Washington and the Center on Urban School Improvement at the University of Chicago. There is, however, a need for problem-based research that is not ideologically driven but instead brings cross-disciplinary researchers and practitioners to the table to understand together what approaches are working, what's not, and what is needed. Contrast, for example, the $530 million appropriated for education research under the Institute of Education Sciences in 2005 with the $28 billion allotted to the National Institutes for Health in that same period.

Research must also be converted into action through development. "As important as it is, research is generally examination, illumination, discussion," notes Chris Whittle, founder of education management organization Edison Schools, in his recent book, *Crash Course: Imagining a Better Future for Public Education*. "Development is all about solutions—execution, integration, workability."[18] Here, one model that may prove instructive is In-Q-Tel, a private nonprofit organization established by the Central Intelligence Agency in 1999. Like a venture capital firm, In-Q-Tel makes strategic investments in promising security technology start-ups and also "incubates" new organizations and products that have been identified through research as critical technologies to national security and intelligence.

As mentioned earlier, those within public education systems are unlikely to have the incentive or time to track future needs and next-wave solutions. Similarly, traditional education researchers are generally not focused on development or practical execution, with a few notable exceptions like Robert Slavin, who helped create the Success For All school model as part of his work at Johns Hopkins University, and Henry Levin, who created the Accelerated Schools model

based on his research at Stanford University. As such, new research and development centers—seeded by both public and philanthropic sources and staffed with cross-disciplinary professionals—are one promising way to ensure that these new tools and approaches are developed.

Some of the intellectual capital work, though, falls squarely on the shoulders of entrepreneurs themselves. Entrepreneurial organizations are often so focused on their day-to-day work that they neglect this activity unintentionally, and few funders systematically encourage them to capture, manage or share what they learn (although The Annie E. Casey Foundation is a notable exception). It is important for entrepreneurs to share lessons learned, so that they may avoid "reinventing the wheel" and instead learn from each other's successes and mistakes as they build brand new organizations.

These kinds of efforts are *de rigeur* in other fields where entrepreneurs flourish, such as in technology, where former employees of large companies like Microsoft swap résumés online and graduates of top-tier business schools host networking events. To this end, some foundations convene their grantees so that they may engage in this kind of collaboration. NewSchools has also created several venues for this type of work, including communities of practice for like-minded organizations and a new annual Gathering of Education Entrepreneurs in partnership with the Aspen Institute. Overall, most education entrepreneurs lack the time, money, or venue to do this sort of intentional reflection and collective learning, and could use support to make sure this happens.

Entrepreneurs must also be conscious of the need to translate their own work into system-level improvements. This may involve a whole host of tactics, including strategic communication, informing policymakers, or even spinning off new organizations. For example,

Teach For America helped one of its former "corps members" create a new nonprofit, The New Teacher Project, to work with public school systems' human resources departments to apply some of the lessons Teach For America has learned over the years. The new organization complements the mission of the original entrepreneurial organization and increases the number of voices supporting that mission in the field—while still allowing the entrepreneur to maintain focus.

CONCLUSION

> *"Pattern change needs two things: a new idea and a social entrepreneur who conceives, develops, and champions it over many years. Only through constant, iterative testing and improvement can a good idea become a realistic idea, then a demonstrated success, and finally...the accepted way society works. The faster the world changes, the greater the need for social adaptation—and therefore for social entrepreneurs."*
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> Bill Drayton of Ashoka[19]

In the summer of 2005, a group of entrepreneurial leaders in education convened in Aspen, Colorado, to consider the question of what public education should look like in 2030 and what role education entrepreneurs should play in that transformation. This convening purposefully included leaders from across the public, private, and nonprofit sectors, and also cut across the traditional silos of practice, research, policy, and philanthropy.

In those conversations, it became apparent that there are two slightly different perspectives on why education entrepreneurs matter. The first rationale is the one cited earlier as the "disruptive technologies" approach. This view holds that public education system must change so profoundly that only the disruptive force of entrepreneurs—who think beyond the current constraints and resources—can get us there. In this view, entrepreneurs are crucial

change agents at this particular moment in time, necessary to propel us from the current system to new model that is geared toward the needs of the knowledge age.

The alternative—and perhaps more compelling—view on entrepreneurs' importance in public education links them to a much larger, more far-reaching change: a major global transformation away from slow, incremental progress and toward fast-paced, dynamic change. The industrial age was slow-moving and focused on manipulating natural resources, its institutions intended to operate steadily for long periods of time. As such, the public education system was designed to ensure stability for students. However, in our current knowledge age, change is the new constant. Technology, medicine, and other fields are now based on constantly evolving cycles of improved knowledge. Education entrepreneurs can bring this critical "dynamic equilibrium" to public education, making them a permanent necessity rather than merely temporary agents of change. In other words, they *are* the change we wish to see in the sector.

This latter view is a radical concept, and one that many within public education may not agree with. But it is worth exploring in more depth six key principles implicit in this view, and what they might imply for how we support education entrepreneurs:

Six Principles of an Entrepreneurial School System

1. *Responsive.* In a dynamic, ever-changing world, public school systems should be responsive to changes in the needs of students, families and communities. If schools are not permanent, but rather opened and closed based on how well they are serving market needs, the supply of schools is aligned with demand.

2. *No monopolies or oligopolies.* Monopolies and oligopolies are fundamentally closed, unresponsive systems that aggregate power and maintain it—even if results are

unsatisfactory. Such inflexible practices should not be tolerated in public education, whether among school districts, teacher preparation programs, or publishers.

3. *Customer-oriented.* Public education has many "customers," including parents, communities that provide funding, and businesses that employ schools' graduates. In order to satisfy their mission, though, public schools must focus first and foremost on the needs of *students*—not *adults* or *institutions*. As such, there must be a diverse supply of schools that address the unique learning needs of students, along with customized instruction within those schools, and mechanisms that support choice and information for parents and communities.

4. *Performance-driven.* With improved results for students as the target, public school systems must manage toward not only effectiveness, but also efficiency (less time and money for the same results). There must be clear goals, alignment of resources toward those goals, and constant assessment and adjustment of those goals and resources based on progress.

5. *Constant learning.* In a dynamic environment, the work of public education is never "finished." As soon as one level of performance is achieved, the next target becomes clear, with continuous improvement always a priority. This cycle of ongoing learning applies to student instruction as well as the management of schools and school systems.

6. *Culture of meritocracy*. When results are the priority, those who find a way to achieve those results are rewarded for their efforts. In other words, the "fastest learner wins"— whether an individual or a team—and others use that success to inform their own practice.

Implications

This dynamic system requires a workforce that is passionate and prepared for the hard work of educating students in this fast-changing new environment. As such, preparation, certification, and support for teachers and leaders must be transformed so that they are driven by attaining desired outcomes in K-12 rather than by maintaining the status quo within higher education. Entrepreneurs are already making inroads on this front, but a more *fundamental redesign of our human capital systems* is necessary to truly embrace these principles.

The public has asked their schools to prepare more children than before and to a higher standard than ever. As such, educators need *better tools and resources*—including money, technology, curriculum, and assessments—than they have today. Financial capital from philanthropic and public sources should be adequate for the task at hand, and organized in such a way that they enable system to respond to—and anticipate—student needs. Technology must also be used to a greater extent than it is today; only through technology will practitioners have timely access to the detailed information they need in order to make informed decisions about instruction and management. Standards, curriculum, and assessments must also be rigorous enough to prepare students to succeed in this knowledge-driven environment.

Finally, education is a very complex, highly skilled endeavor. We must develop *new practices* that support increased productivity and responsiveness. This includes a need for more research and development on effective instructional and management approaches. We know a great deal today about fundamental areas like reading instruction, but there is much to be learned about how to manage school systems in this new environment. One critical factor is making available more transparent, timely, and relevant information about student and school progress,

which would enable educators, parents, and community leaders to make more informed decisions and set the stage for entrepreneurs to create new approaches and organizations based on need.

In a system governed by the principles of dynamic equilibrium, entrepreneurs may be both important vehicles for getting there *and* permanent participants in this new environment. By imagining how education can be improved, thinking beyond the current rules and resources, creating new organizations to execute their vision and inspiring others to follow, entrepreneurs may be agents of continuous improvement in public schooling.

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[13] This is known as "Moore's Law," and was first posited by Gordon Moore, co-founder of semiconductor technology firm Intel, in 1965. For more on Moore's Law, see www.intel.com/technology/mooreslaw/index.htm.

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