

Interventions and Catalysts in Markets for Education Technology: Roles of City-Based Funders



*Prepared for the Cities for Education Entrepreneurship Trust (CEE-Trust)
by Public Impact*

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CEE-TRUST

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About CEE-Trust

CEE-Trust is a growing network of 30 city-based foundations, non-profits, and mayors' offices that support education innovation and reform. CEE-Trust is a convener, collaborator, and consultant, helping its members create vibrant ecosystems for education reform across the country. For more about CEE-Trust, please visit www.cee-trust.org.

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Introduction

In recent years, several education-focused, city-based funders have turned to investments in technology-based initiatives as a strategy to address education's most vexing problems. These funders recognize the outsized impact technology could have on their cities' classrooms. They see the potential for technology to advance equal opportunity in education by personalizing learning experiences for each student; generating and capitalizing on large quantities of student data; helping excellent educators effectively differentiate instruction; enabling students to proceed at their own pace; and much more. For these funders, it's not a matter of whether there are significant roles for technology to play in improving our education systems, but of what steps they can take to most effectively and expeditiously realize technology's potential.¹

The main purpose of this white paper **is to identify and catalog the core components of education technology markets that city-based funders might support, and how they might support them.** In addressing this topic, we have generated a “map” of existing organizations addressing the core components. Our map is illustrative, not exhaustive.²

Several funders and education technology experts gave generously of their time to help us dissect the education technology landscapes in various cities and across the country as a whole (see Appendix: Acknowledgements). The options they described for city-based funders fall into two categories:

- **Intervening** directly in education technology markets by funding creators or users of cutting-edge technologies; and,
- **Catalyzing** activity or funding, to inform the field or create conditions favorable to the creators and users of education technology.

Their input also exposed philosophical divides and practical concerns that impact funders' investment decisions. Some of the most common issues they raised include:

The role of philanthropy. Some believe the role of philanthropy should be to focus on building demand for education technology, and that private markets will fund supply if demand is there. Some voice concern that funders might distort education technology markets by supporting products for which no real demand exists.³ Others see roles for philanthropy in building education technology markets and expanding the quantity and quality of available alternatives. In this view, the benefits of philanthropic funding outweigh the risk of market inefficiencies. One effort to reconcile the tensions between philanthropy and private investment is “mission-driven investing,” in which investments are premised on a social thesis that describes a condition and an expected change, and a financial thesis that sets forth a business model and an expected financial return.⁴

Policy and contractual obstacles. A variety of policies and contracting-related issues may impede successful implementation of technology-based initiatives. Some of these are related to technology and digital tools themselves (e.g., procurement policies; textbook-adoption policies; rules governing alignment of digital resources with state standards), while others concern the environments within which initiatives will be implemented (e.g., class size mandates; seat time requirements; certification or licensure requirements; lack of school-level budgetary autonomy). Educators often find it easier to purchase tangible products than to contract for services or engage in processes necessary to implement many technology-based initiatives. A funder that believes the policy environment is stacked against technology-based initiatives might aim to change policy.

Market participants' experience with and attitudes toward technology. Some cities' school leaders and teachers tend to have more extensive experience with technology than others. It is increasingly important for teachers to understand and be able to interact successfully with technology. While tech savvy is no substitute for the skills and traits that have long made for successful teachers, it is an additional point of distinction for teachers in many new school and classroom models.⁵ Considerations of experience with and attitudes toward technology impact the types of schools funders invest in and the amount (and type) of training they expect staff members will need to give an initiative the greatest chance of success.

In any city, funders should consider the potential value of comprehensive, citywide strategies to support education entrepreneurs—both those within schools and those that are designing technology tools to address the issues schools face. And funders with varying philosophies, attitudes, and rates of annual giving should collaborate to reinforce one another's work.⁶

While each funder will reach different conclusions about its strategic approach to the education technology marketplace for a combination of these reasons (and others), we recommend that funders ask **two core questions** to generate their strategies with respect to education technology investments:

1. *What are the needs and opportunities in our market?*
2. *Which needs and opportunities align with our capacity, theory of change, and risk tolerance?*

This paper does not cover donor strategy in depth, but several funders were gracious in sharing brief comments about their rationales for specific investments related to education technology and blended learning, and how those investments related to their organizations' theories of change (see "Strategy Snapshots" throughout). We also refer readers to a practical guidebook for donors on blended learning, released in April 2013 by The Philanthropy Roundtable.⁷

The remainder of this white paper details interventions and catalysts in markets for education technology that funders can consider in answering the two questions above. While many of the options catalogued here are tied to blended-learning initiatives, and all such initiatives use technology, we have not drawn a strict line around blended learning.⁸ Instead, we have chosen to remain model-agnostic in our exploration of education technology investment alternatives. Approaches discussed here might apply to blended learning schools and programs, online schools, or traditional schools seeking to incorporate technology into traditional classroom structures.

All of the options discussed below are currently funded by, actively being considered by, or have been specifically recommended for city-based funders. For each option, we provide a very brief description and, where applicable, illustrative references to actual examples of the activity in practice. We do not provide cost estimates for the options listed.⁹ We also do not compare or critique these strategies. Finally, we are cataloguing activity, not attempting to vouch for the results achieved through any of the listed options or specific examples. This white paper aims merely to illustrate the possibilities.

Below we present our findings in list form. We have also identified the four most frequently asked questions we've heard from city-focused funders on this topic. We list these questions, and reproduce material from the main body of this report as answers, in Appendix I.

Interventions

City-based funders might opt to intervene directly in education technology markets. In this section we detail some of the most promising alternatives for direct intervention in education technology markets, which generally involve:

- **funding creators of cutting-edge education technologies; or,**
- **funding users of cutting-edge education technologies.**

Funding Creators of Education Technologies¹⁰

Funders can become involved at any stage of the process of creating new education technologies: supporting generation of new ideas, funding early stage development, launching promising ventures, or scaling up promising efforts that have achieved initial success. Although not explored in-depth here, foundations might also consider directly funding for-profit education technology companies.

- **Community- and capacity-building.** Focused programs or events can create communities of innovators who collaborate, generate and critique new ideas, and create workable plans to move them forward. They may lead to the startup of private companies or nonprofit organizations designed to translate ideas into practice and bring them to market; or they could foster direct work with educators, helping teachers and leaders innovate within schools and classrooms. Examples include [Startup Weekend Education](#), [DesignEDU](#), and [TeacherSquare](#).
- **Design awards or prizes.** Under this alternative, a funder states a problem to be solved by education technology, and then awards one or more prizes for the best solutions. Those who discussed this option stressed the importance of selecting the right panel of judges, valuing impartiality, an acute awareness of the problem, and general subject-matter expertise. Examples include [Digital Promise’s Incentive Prizes for Innovation in Education](#), the [Automated Student Assessment Prize \(ASAP\)](#), and cross-sector examples such as the [Netflix Prize](#) and various competitions run by the [X PRIZE Foundation](#).
- **Seed funding or incubation.** At this early stage of development, a funder supports innovators’ efforts to prototype high-potential ideas. In essence, funding at this stage helps entrepreneurs and the funding community determine if ideas “have legs,” fill needs in the market, and deserve further development. [Learn Capital](#), the [NewSchools Seed Fund](#), [TechStars](#), and [The Hatchery](#) provide capital to new, promising education technology ventures. Incubators or accelerators such as the following provide *support* to entrepreneurs and may also provide funding or serve as conduits between funders and promising early-stage ideas: [Socratic Labs](#), [Imagine K12](#), [General Assembly](#), [4.0 Schools](#), [EdSeeds](#), [iZone 360](#), [Kauffman Labs Ed Ventures](#), and [The Learning Accelerator](#).
- **Launch.** The next phase of development involves implementing the most promising early-stage ventures and assessing their quality, i.e., their ability to generate the desired results—typically gains in student outcomes. Some of the organizations listed as seed funders or incubators also provide launch support.
- **Scale.** Investors at this stage provide expansion capital to enable successful efforts to grow and expand their impact to more students. Examples include [NewSchools Venture Fund](#), [Learn Capital](#), and [Rethink Education](#). Typical investments in scaling involve \$1M or more and are often staged over multiple years with built-in growth and performance targets.

Funding Users of Education Technologies

Like funders of creators, those who fund users of education technologies can also get involved at different stages, from piloting new ventures or starting new programs or schools, to replicating or scaling the technology-based initiatives that achieve success at early stages. They can also support the transition of existing schools or programs to blended learning. And they can fund individual users—existing or prospective school leaders and teachers who plan to use education technology in their school models and classrooms.

- **Blended schools and pilot programs.** Funders often invest directly in classrooms or whole-school models using online and blended learning. Many of today's best-known blended programs got their start as pilots or new blended schools or initiatives funded with a mix of national, state, and city-based supports. Examples include [New Tech Network](#), the [Oakland Unified School District Blended Learning Pilot](#), turnaround expert [Matchbook Learning](#), and charter schools and networks such as [Rocketship Education](#), [Aspire Public Schools](#), [Carpe Diem](#), [KIPP Empower](#), [Touchstone Education](#), [Summit Public Schools](#), and the [Blended Learning for Alliance School Transformation](#) initiative within the Alliance for College-Ready Public Schools. The [Silicon Schools Fund](#) is a nonprofit investment fund that supports the launch of blended-learning schools in the Bay Area.
- **Growth and replication.** Successful pilots, including many of those noted above, may receive funding for replication and other growth-oriented activities. Some organizations that support the scaling of creators of education technologies also support expansion of successful users, including [NewSchools Venture Fund](#) and [Charter School Growth Fund](#). Others focus squarely on users, such as [Next Generation Learning Challenges \(NGLC\)](#).
- **Transitions to blended learning and related staffing models.** Experts voice concern over the substantial transition costs associated with moving from traditional to more technology-intensive school models. Funders might play unique roles in supporting these costs and helping schools through a period of heightened investment to new equilibriums that see them operating technology-intensive models within available per-pupil funding allotments.¹¹ Some funders might fund transitions as loans, bonds, or program-related investments (PRIs) rather than grants, permitting repayment from longer-term savings streams generated under some new models. Repaid funds might in turn revolve into future investments.
- **Fellowships and leadership training programs.** Investors might focus on training and supporting leaders of new technology-intensive pilots and school models. For example, the [CityBridge-NewSchools Education Innovation Fellowship](#) introduces fellows to blended learning innovations and prepares them to design and lead blended learning pilot programs. Funders could support incubators that recruit, select, train, support, and monitor new *school or charter management organization (CMO) leaders*—not to be confused with the incubation and prototyping of *ideas* described above—to focus specifically on leaders for online or blended school models. Examples of such organizations include [Get Smart Schools](#) and CEE-Trust members like the [Tennessee Charter School Incubator](#), [Charter School Partners](#), [New Schools for New Orleans](#), and [The Mind Trust](#) (through its [Charter School Incubator](#)).
- **Classroom-level experimentation.** Small grants to CMOs or districts (or even individual schools or teachers) incent experimentation with education technology options. By in essence paying potential customers to try products, funders can expand markets but also make market participants smarter.

Catalysts

The second major category of options for city-based funders involves catalyzing activity within the field, including by:

- **connecting creators and users to develop better, more useful products;**
- **convening or networking market participants;**
- **conducting research on what works;**
- **publicizing activities of market participants;**
- **vetting or aggregating education technology options**
- **educating and supporting investors;**
- **coordinating policy or advocacy initiatives; and,**
- **supporting implementation.**

Connecting Creators and Users to Develop Better, More Useful Products

Funders might pursue strategies to connect creators and users, by analyzing markets or capturing user opinion to guide creators' strategic decisions and product development.

- **Market analysis.** Even before product development begins, funders can support analyses of “pain points,” or specific needs facing educators and students that technology might be well-positioned to address. In doing so, funders can offer creators of new education technologies a sense of the problems educators face and the products that might help them address those problems.
- **Injecting “teacher voice” into product development (e.g., through focus groups and beta testers).** Funders can help prevent “echo chamber” effects that lead to product development that is out of alignment with schools' requirements or out of step with educators' real needs. They can connect creators and users of education technologies by opening lines of communication between the two groups, such as by creating focus groups to evaluate products or beta testers to offer feedback on early versions of technologies still in development. Experts disagree about which teachers' voices to seek out—a range of teachers or just those most inclined toward technology—and the best stages of product development for their involvement. [Leadership Public Schools](#) presents a ready forum for connecting teachers and developers, with a school and education technology entrepreneurs co-located at the same site. [Schoolzilla](#) was incubated in a CMO ([Aspire Public Schools](#)) and was built together by teachers and technologists.

Convening or Networking Market Participants

Funders can also bring creators and users together. This can happen through one-time events, such as convenings, conferences, and site visits, and through ongoing networks.

- **Local or Closed-Network Convenings.** Funders might sponsor events to bring together groups of creators or users, or both—for informational or networking purposes. Some events, such as [EdGrowth Summit](#), bring together entrepreneurs, investors, and practitioners. [Edtech Meetups](#) provide forums for educators, entrepreneurs, technologists, and others to network, learn, and collaborate; [EdSurge](#) recently published a [map of education technology events](#), including Meetups. Other events educate school leaders, teachers, policymakers, researchers, leaders of education-focused nonprofits, parents, and students on possible uses of education technology in their schools, classrooms, or homes—for example, a February 2012 conference in Rhode Island, “[Innovation Powered by Technology](#).” A practitioner-focused event that serves similar purposes is [Summit Public Schools' Innovation Summit](#). Convenings specifically oriented to teachers include [EdCamps](#)—locally organized, teacher-driven

“unconferences.” The [Philanthropy Roundtable](#) has hosted gatherings of leading philanthropists and experts focused on education technology and blended learning. In 2013, [CEE-Trust](#) will offer workshops to introduce participants in select cities to blended learning. A portion of each workshop will introduce participants to the education technology market. The [CEE-Trust](#) workshops and others listed here engage participants in design activities in which they evaluate how education technology might impact their schools or classrooms.

- **National conferences.** There are also numerous conferences and national events each year focused on convening stakeholders around education technology and related topics. They include the [iNACOL Virtual School Symposium](#), [Digital Learning Day](#), the [ASU/GSV Education Innovation Summit](#), the [Excellence in Action National Summit on Education Reform](#), [NewSchools Summit 2013](#) (invitation only), the [International Society for Technology in Education Conference](#), [SXSWedu](#), the [FETC National Conference](#), and many others. Funders can support the events themselves, or individual presentations, workshops, or conference booths.
- **Site visits.** Teachers, school leaders, and those in a variety of other education-focused organizations can get exposure to venues using cutting-edge technologies through actual or virtual site visits. In these environments, attendees have opportunities to see technology in action, being used by teachers and students, and they can ask questions of those whose day-to-day lives are impacted by the technologies. [CEE-Trust’s Blended Learning Working Group](#), the [Philanthropy Roundtable](#), and [Democrats for Education Reform \(DFER\)](#) are among many groups to conduct site visits to schools implementing blended learning models. Funders might direct more resources specifically to exposing teachers and school leaders to existing, exemplary blended models.
- **Networks.** Networks of creators or users (or potential users) can share information and opinion; act collaboratively to pool resources or share purchasing power; and publicize successes. [Digital Promise’s League of Innovative Schools](#), [CEE-Trust’s Blended Learning Working Group](#), and [Next Generation Learning Challenges](#) are three examples of user networks. Cohorts at [Imagine K12](#) and [4.0 Schools](#) network creators for thought partnership and collaboration.

Conducting Research on What Works

The sector needs strong research efforts. Funders can help figure out which education technologies are working and share that information with the field.

- **Basic research.** Funders can support research that does not have commercial significance in the short run (research with commercial significance will be commissioned by private investors). They can also support evaluation of new technologies and the programs that use them, as well as organizations that put into place data-sharing protocols and systems that make it easier for researchers and practitioners to complete rapid, rigorous research. Examples include the public-private partnership [Digital Promise](#), and [SRI International](#). Others include university-affiliated programs such as [Harvard EdLabs](#) and the [University of Chicago’s Urban Education Institute](#). Some school networks, such as [Rocketship Education](#), are also developing the capacity to engage in basic research and evaluation efforts.
- **Analyze the market and publicize results.** The funding community needs objective analyses of the quality of education technology offerings to support informed decision-making by practitioners and state and local education leaders. Funders can support such analyses and the publication and widespread sharing of their results.

Publicizing Activities of Market Participants

Funders can spotlight successes of creators and users, spreading the word about their efforts in case studies and other publications.

- **Case studies of noteworthy creators and users.** Several funders have supported or are currently supporting the creation of written case studies of existing users of education technology. Examples include blended learning case studies released by [Innosight Institute](#) and the [Michael & Susan Dell Foundation](#), as well as the case study of implementation efforts in the [Oakland Unified School District Blended Learning Pilot](#).
- **Explanations of activity in the field.** Aside from case studies, funders have supported the creation of tools to publicize developments in the field through videos, infographics, motion graphics, and other informative publications related to implementing new technology-intensive models. Some such resources show individual school models at work, such as [Carpe Diem](#), [KIPP Empower Academy](#), the [Blended Learning for Alliance School Transformation](#) initiative within the Alliance for College-Ready Public Schools, and [Mission Dolores Academy](#). Some explore design and implementation issues, including [Digital Learning Now's Smart Series](#), and resources produced by nonprofit or private entities, such as [Public Impact](#), [New Classrooms](#), [Education Elements](#), and [CEE-Trust](#).
- **Thought leadership and writings to shape opinion and market activity.** Funders also support those who think and write about actual and potential uses of education technology, and those who link education technology to other education reform issues such as human capital, maintaining focus on quality, school choice, and the shift to competency-based learning. Organizations that do this include [GettingSmart](#), [iNACOL](#), [CompetencyWorks](#), [Innosight Institute](#), [Parthenon Group](#), and [Public Impact](#).
- **Blogs and newsletters.** Thought leaders also help shape the field through regular blog posts or newsletters. These informal writings guide opinion and inform an understanding of education technology and related challenges. Some of the more influential on education technology issues include [edSurge](#), [Getting Smart](#), [Maximize Potential](#), [Hack Education](#), [Blend My Learning](#), [Vander Ark on Innovation](#), [SmartBrief on Ed Tech](#), the [Innosight Institute education blog](#), [The Garden](#), [Digital by The Hechinger Report](#), [MindShift](#), and [Education Week–Digital Directions](#). Some blogs and newsletters are grant supported; others are operated by private or nonprofit entities without grant funding.

Vetting or Aggregating Education Technology Options

It can be difficult for educators to find technologies, distinguish among them, and choose those that are of highest quality. Funders can help inform educators about what is available and lead efforts to gauge quality.

- **Market descriptions.** Under this alternative, funders support efforts to comprehensively catalog education technology options available to schools, and to provide enough information for teachers and school leaders to engage with that information and make informed choices. The most prominent example of this is the NewSchools Venture Fund's [Ed Tech Map](#). CEE-Trust also recently launched [BlendedLearningNow](#), an aggregator of news, blogs, research, case studies, and videos about blended learning, to help educators, philanthropists, civic leaders, and others make sense of the emerging field.
- **Quality filter.** With so many education technology options, busy educators have difficulty discerning which are of high-quality and good fits for their students. Funders can support aggregators of alternatives that explain what different education technologies do but also how well they do it. Judgments of quality may be rendered by expert reviewers (the “Consumer Reports” approach) or user-generated (the “Amazon.com” approach). Examples include [edSurge Product Reviews](#), [CFY's PowerMyLearning platform](#), and [Classroom Window](#).

Educating and Supporting Investors

Like educators, potential investors may have a hard time keeping track of the education technology options or distinguishing among them. Funders can play roles in helping investors make sense of the landscape and make smart choices about where to invest their money.

- **Educate angels.** Funders can educate angel investors about reasons for investing in education technology. Options for doing this include convenings, networking events, research, market analyses, and publications, all of which are discussed above.
- **Due diligence.** Related to this, funders can conduct due diligence on behalf of investors. They can create a “Good Housekeeping” seal of approval or more extensive reviews for education technology products that will shape the market by guiding investors’ decisions about which products to develop.

Coordinating Policy or Advocacy Initiatives

As noted above, many policy and advocacy hurdles inhibit implementation of education technologies in today’s classrooms, or create school or classroom environments that keep even the most promising technologies from being used to full effect. Funders can help eliminate those hurdles through policy and advocacy initiatives.

- **Development of a state digital learning plan.**¹² Funders can support organizations that help states and districts prepare for online assessment, create plans to improve technology infrastructure, improve professional development and communications related to uses of technology in the school and the classroom, and integrate college-ready standards into technology-intensive initiatives. Examples of such organizations include the [Alliance for Excellent Education](#), the [Foundation for Excellence in Education](#), [Innosight Institute](#), [iNACOL](#), and [Digital Learning Now](#).
- **Advocacy for specific policies.** Numerous policy issues impact the ease of adoption of education technologies or the quality of the environment within which they are adopted, which in turn will impact the effectiveness of new technologies. Some crucial policy issues include those related to seat time, teacher certification and licensure, class size mandates and “line of sight” requirements, salary schedules, procurement, and textbook and materials adoption. Organizations confronting these issues directly include [iNACOL](#), [CompetencyWorks](#), [Digital Learning Now](#), and [Democrats for Education Reform](#). In addition to funding organizations like these, funders can commission studies of issues such as access to digital learning opportunities, outcomes of technology-enabled initiatives, and quality and accountability systems, and issue recommendations legislatures and departments of education can address to spur needed improvements. They can also coordinate organized, vocal constituencies, which can move legislative and departmental policies and priorities.¹³

Supporting Implementation

Funders can help create the systems and structures within which education technologies will thrive. They can support those with expertise in implementing technologies effectively, fund specific inputs or services, or coordinate the activities of creators and users. Education technology presents numerous attractive options for funders. Many of the options discussed above have received a good deal of attention from funders, but those listed here, though less glamorous, may present some of the most effective investment and grant opportunities due to their direct impact on school systems and classroom practice.

- **Funding implementation support organizations.** Funders can support implementation of education technologies by pairing schools or districts with support organizations that know and understand those technologies—their promise and their limitations. These organizations can help educators identify and confront implementation challenges ranging from technical issues to broader change management issues. Implementation support organizations include [Education Elements](#), [Evergreen Education Group](#), [Public Impact](#), [2Revolutions](#), [New Tech Network](#), [Integrated Educational Strategies \(IES\)](#), [Alvo Institute](#), [Education Resource Strategies \(ERS\)](#), and [New Classrooms](#).
- **Supporting professional development.** Successful implementation will depend on preparing teachers and school leaders to play new roles within and outside of the classroom. Funders can help prepare teachers to analyze and use data, select appropriate content and modalities for individual students, coach and motivate students in settings where content is delivered via technology, and troubleshoot technology issues, among many other new situations presented by increased meaningful use of education technology. Many of the organizations listed as implementation support organizations above also provide professional development for teachers in technology-rich, online, and blended environments.
- **Funding city and school technology infrastructure.** Schools and districts need many other supports to pave the way for effective implementation of education technologies. For example, schools need hardware, high-speed internet access, and ongoing IT support. Examples of funders’ efforts to provide support here include the proposed use of Facilities Bonds for technology infrastructure, as in the [San Diego Unified School District’s i21 initiative](#). They also include advocacy to push city governments to improve internet bandwidth and coverage in schools.
- **Investing in improved data management platforms.** Schools also need tools that help them integrate student data from different systems and make it easy to use for teachers and school leaders. [InBloom](#) (formerly the Shared Learning Collaborative) is “a nonprofit provider of technology services that allow states and public school districts to better integrate student data and third-party applications to support sustainable, cost-effective personalized learning.”¹⁴ Other examples of organizations focused on improving data management platforms include [Clever](#), [LearnSprout](#), and [Schoolzilla](#).
- **Coordinating multiple catalysts.** Some organizations will play coordinating roles in the evolving education technology landscape, and funders can support their activities. Examples include [The Learning Accelerator](#), a nonprofit designed to accelerate implementation of high-quality blended learning in districts across the country, and the New York City Department of Education’s [InnovateNYC](#), which aims to connect city schools with high-potential education technologies.

Conclusion

This white paper identifies and catalogues alternatives available to city-based funders interested in intervening in or catalyzing their cities’ education technology markets. Funders might choose among the alternatives discussed here based on a variety of factors, including grant size, capacity, risk tolerance, and the funder’s theory of change. For example, funders who view their funding as risk capital for research and development might be drawn to seeding early stage efforts. Those with deep experience and interest in public-private partnerships might support school systems tackling implementation challenges. Others that prioritize studying impacts might be drawn to research-based efforts or evaluations.¹⁵ CEE-Trust hopes that this resource will be useful to its members and other funders as they consider their strategies and options for maximizing their impact in this rapidly evolving area.

Appendix I: Frequently Asked Questions

1. How do we build more interest and understanding of high quality blended learning in our city?

Site visits. Teachers, school leaders, and those in a variety of other education-focused organizations can get exposure to venues using cutting-edge technologies through actual or virtual site visits. In these environments, attendees have opportunities to see technology in action, being used by teachers and students, and they can ask questions of those whose day-to-day lives are impacted by the technologies. [CEE-Trust's Blended Learning Working Group](#), the [Philanthropy Roundtable](#), and [Democrats for Education Reform \(DFER\)](#) are among many groups to conduct site visits to schools implementing blended learning models. Funders might direct more resources specifically to exposing teachers and school leaders to existing, exemplary blended models.

Local or Closed-Network Convenings. Funders might sponsor events to bring together groups of creators or users, or both—for informational or networking purposes. Some events, such as [EdGrowth Summit](#), bring together entrepreneurs, investors, and practitioners. [Edtech Meetups](#) provide forums for educators, entrepreneurs, technologists, and others to network, learn, and collaborate; [EdSurge](#) recently published a [map of education technology events](#), including Meetups. Other events educate school leaders, teachers, policymakers, researchers, leaders of education-focused nonprofits, parents, and students on possible uses of education technology in their schools, classrooms, or homes—for example, a February 2012 conference in Rhode Island, “[Innovation Powered by Technology](#).” A practitioner-focused event that serves similar purposes is [Summit Public Schools' Innovation Summit](#). Convenings specifically oriented to teachers include [EdCamps](#)—locally organized, teacher-driven “unconferences.” The [Philanthropy Roundtable](#) has hosted gatherings of leading philanthropists and experts focused on education technology and blended learning. In 2013, [CEE-Trust](#) will offer workshops to introduce participants in six cities to blended learning. A portion of each workshop will introduce participants to the education technology market. The CEE-Trust workshops and others listed here engage participants in design activities in which they evaluate how education technology might impact their schools or classrooms.

Build Networks. Networks of creators or users (or potential users) can share information and opinions; act collaboratively to pool resources or share purchasing power; and publicize successes. [Digital Promise's League of Innovative Schools](#), [CEE-Trust's Blended Learning Working Group](#), and [Next Generation Learning Challenges](#) are three examples of user networks. Cohorts at [Imagine K12](#) and [4.0 Schools](#) network creators for thought partnership and collaboration.

Explanations of activity in the field. Funders have also supported the creation of tools to publicize developments in the field through videos, infographics, motion graphics, and other informative publications related to implementing new technology-intensive models. Some such resources show individual school models at work, such as [Carpe Diem](#), [KIPP Empower Academy](#), the [Blended Learning for Alliance School Transformation](#) initiative within the Alliance for College-Ready Public Schools, and [Mission Dolores Academy](#). Some explore design and implementation issues, including [Digital Learning Now's Smart Series](#), and resources produced by nonprofit or private entities, such as [Public Impact](#), [New Classrooms](#), [Education Elements](#), and [CEE-Trust](#).

2. How can we increase the number of high quality blended learning schools?

Blended schools and pilot programs. Funders often invest directly in classrooms or whole-school models using online and blended learning. Many of today’s best-known blended programs got their start as pilots or new blended schools or initiatives funded with a mix of national, state, and city-based supports. Examples include [New Tech Network](#), the [Oakland Unified School District Blended Learning Pilot](#), turnaround expert [Matchbook Learning](#), and charter schools and networks such as [Rocketship Education](#), [Aspire Public Schools](#), [Carpe Diem](#), [KIPP Empower](#), [Touchstone Education](#), [Summit Public Schools](#), and the [Blended Learning for Alliance School Transformation](#) initiative within the Alliance for College-Ready Public Schools. The [Silicon Schools Fund](#) is a nonprofit investment fund that supports the launch of blended-learning schools in the Bay Area.

Growth and replication. Successful pilots, including many of those noted above, may receive funding for replication and other growth-oriented activities. Some organizations that support the scaling of creators of education technologies also support expansion of successful users, including [NewSchools Venture Fund](#) and [Charter School Growth Fund](#). Others focus squarely on users, such as [Next Generation Learning Challenges \(NGLC\)](#).

Fellowships and leadership training programs. Investors might focus on training and supporting leaders of new technology-intensive pilots and school models. For example, the [CityBridge-NewSchools Education Innovation Fellowship](#) introduces fellows to blended learning innovations and prepares them to design and lead blended learning pilot programs. Funders could support incubators that recruit, select, train, support, and monitor new *school or charter management organization (CMO) leaders*—not to be confused with the incubation and prototyping of *ideas* described above—to focus specifically on leaders for online or blended school models. Examples of such organizations include [Get Smart Schools](#) and CEE-Trust members like the [Tennessee Charter School Incubator](#), [Charter School Partners](#), [New Schools for New Orleans](#), and [The Mind Trust](#) (through its [Charter School Incubator](#)).

Classroom-level experimentation. Small grants to CMOs or districts (or even individual schools or teachers) incent experimentation with education technology options. By in essence paying potential customers to try products, funders can expand markets but also make market participants smarter.

Transitions to blended learning and related staffing models. Experts voice concern over the substantial transition costs associated with moving from traditional to more technology-intensive school models. Funders might play unique roles in supporting these costs and helping schools through a period of heightened investment to new equilibriums that see them operating technology-intensive models within available per-pupil funding allotments. Some funders might fund transitions as loans, bonds, or program-related investments (PRIs) rather than grants, permitting repayment from longer-term savings streams generated under some new models. Repaid funds might in turn revolve into future investments.

3. How can we get more effective technology into public schools?

Funding city and school technology infrastructure. Schools and districts need many other supports to pave the way for effective implementation of education technologies. For example, schools need hardware, high-speed internet access, and ongoing IT support. Examples of funders’ efforts to provide support here include the proposed use of Facilities Bonds for technology infrastructure, as in the [San Diego Unified School District’s i21 initiative](#). They also include advocacy to push city governments to improve internet bandwidth and coverage in schools.

Investing in improved data management platforms. Schools also need tools that help them integrate student data from different systems and make it easy to use for teachers and school leaders. [InBloom](#) (formerly the Shared Learning Collaborative) is “a nonprofit provider of technology services that allow states and public school districts to better integrate student data and third-party applications to support sustainable, cost-effective personalized learning.” Other examples of organizations focused on improving data management platforms include [Clever](#), [LearnSprout](#), and [Schoolzilla](#).

4. How can we create the right conditions for blended learning in our city and state?

Develop a state digital learning plan. Funders can support organizations that help states and districts prepare for online assessment, create plans to improve technology infrastructure, improve professional development and communications related to uses of technology in the school and the classroom, and integrate college-ready standards into technology-intensive initiatives. Examples of such organizations include the [Alliance for Excellent Education](#), the [Foundation for Excellence in Education](#), [Innosight Institute](#), [iNACOL](#), and [Digital Learning Now](#).

Advocacy for specific policies. Numerous policy issues impact the ease of adoption of education technologies or the quality of the environment within which they are adopted, which in turn will impact the effectiveness of new technologies. Some crucial policy issues include those related to seat time, teacher certification and licensure, class size mandates and “line of sight” requirements, salary schedules, procurement, and textbook and materials adoption. Organizations confronting these issues directly include [iNACOL](#), [CompetencyWorks](#), [Digital Learning Now](#), and [Democrats for Education Reform](#). In addition to funding organizations like these, funders can commission studies of issues such as access to digital learning opportunities, outcomes of technology-enabled initiatives, and quality and accountability systems, and issue recommendations legislatures and departments of education can address to spur needed improvements. They can also coordinate organized, vocal constituencies, which can move legislative and departmental policies and priorities.

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Endnotes

1. See, e.g., Blue Ridge Foundation New York (BRFNY), at <http://www.brfny.org/>. Conversations with Matthew Klein, BRFNY's Executive Director, led to this white paper and informed its structure and substance. BRFNY's core work is seeding and incubating start-up ventures, both nonprofit and for-profit, that use technology to advance opportunity and upward mobility. Portfolio members work out of BRFNY's offices, where they receive space and management assistance, and have the opportunity to network with other social sector leaders.
2. We also refer the reader to the detailed Ed Tech Map created by NewSchools Venture Fund, Michael Horn (Innosight Institute), and Anthony Kim (Education Elements), which provides a visual representation of ventures operating in the education technology market. <http://www.newschools.org/entrepreneurs/edtechmap>. This interactive map provides a visual representation of the education technology market broken out into the four categories of curricula, instructional systems, data systems, and talent management. Each of the four is further subdivided into several subcategories. It is unclear when the map was updated most recently, but the NewSchools Venture Fund intends for the Ed Tech Map to be maintained and updated as the market evolves.
3. E.g., Alex Hernandez (personal communication, December 21, 2012).
4. The term "mission-driven investing" and this investment strategy have been embraced by the W.K. Kellogg Foundation. See <http://mdi.wkkf.org/>.
5. See Bernatek, B., Cohen, J., Hanlon, J., & Wilka, M. (2012). Blended learning in practice: Case studies from leading schools (Summit Public Schools). Michael & Susan Dell Foundation. Retrieved from: <http://www.msdf.org/blendedlearning/>
6. See Hernandez, A. (2012). "Investing in Education Innovation." Innosight Institute Education Blog. Retrieved from <http://www.innosightinstitute.org/education-blog/investing-in-education-innovation/>
7. Vanderkam, L. (2013). Blended learning: A wise giver's guide to supporting tech-assisted teaching. Washington, DC: The Philanthropy Roundtable. Retrieved from: http://www.philanthropyroundtable.org/guidebook/blended_learning_a_wise_givers_guide/k_12_education.
8. For a detailed taxonomy of blended learning models, see Staker, H. & Horn, M. B. (2012). *Classifying K-12 Blended Learning*. Mountain View, CA: Innosight Institute.
9. For estimates of costs associated with investment alternatives discussed here and others, see Vander Ark, T. (2012, July 5). "How Philanthropy Can Improve & Accelerate the Shift to Digital Learning." *Getting Smart* [blog]. Retrieved from <http://gettingsmart.com/blog/2012/07/how-philanthropy-can-improve-accelerate-shift-digital-learning/>; Hernandez, A. (2012). "Investing in Education Innovation." *Innosight Institute Education Blog*. Retrieved from <http://www.innosightinstitute.org/education-blog/investing-in-education-innovation/>
10. Several of the subcategories in this subsection were drawn from a conversation with Alex Hernandez, Partner and Vice President at Charter School Growth Fund. Also see Hernandez, A. (2012).
11. Public Impact (2012). *Redesigning schools to reach every student with excellent teachers: Financial planning summary*. Chapel Hill, NC: Author. Retrieved from http://opportunityculture.org/wp-content/uploads/2012/05/Financial_Planning_Summary-Public_Impact.pdf
12. Example drawn from Vander Ark, T. (2012, July 5). "How Philanthropy Can Improve & Accelerate the Shift to Digital Learning." *Getting Smart* [blog]. Retrieved from <http://gettingsmart.com/blog/2012/07/how-philanthropy-can-improve-accelerate-shift-digital-learning/>
13. Tony Lewis (personal communication, December 26, 2012); Matthew Klein (personal communication, November 21, 2012).
14. inBloom website, "about inBloom." Retrieved from <https://www.inbloom.org/about-inbloom> (last visited February 12, 2013).
15. Matthew Klein, Executive Director, Blue Ridge Foundation New York (personal communication, November 21, 2012).



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