Innovating Toward New Learning Models

Insights from a National Convening on Blended-Personalized Learning Models

2Revolutions
Do What You Love For Good

Contents

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1 Introduction

A dizzying array of powerful trends – old and new – have converged to create a rare opportunity for fundamental change in how we educate American students. In the nearly three decades since the seminal report, ***A Nation at Risk***, the country has roughly doubled expenditures for only marginal gains in student performance[1]. Today, we are reeling from a financial crisis that forces states and municipalities to do more with less. Widespread and growing dissatisfaction with the status quo among parents, practitioners, employers, policymakers and the public has grown to a crescendo. A clear majority is ready to say "no" to our current system, but we have not yet invented the new approaches to which we can all say "yes." The American education system remains stuck.

At the same time, we are witnessing explosive growth in the access to and potential uses of technology that expand what is possible, every day advances in cognitive science deepen our understanding of how we learn, and a growing class of entrepreneurial educators are actively experimenting with a range of new learning models. As this tectonic shift occurs beneath our feet – promising to remake the educational landscape – most school systems continue to rely on a 100-year-old factory model to prepare students for the complex future that awaits them. Although we exist in a global economy in which the factory is an increasingly obsolete notion, the conveyor-belt approach to schooling persists.

> "It is on the expanding edge of the horizon, where reality intersects the imagination, that we will forever find our new beginnings."
>
> David Jay Brown

1 U.S. Department of Education, "A Nation Accountable: Twenty-five Years After A Nation at Risk," 2008.

2 Bringing Practitioners Together

It was in this context that in June of 2011, The Bill and Melinda Gates Foundation – in partnership with 2Revolutions and with input from colleagues at the Michael & Susan Dell Foundation – sponsored a "Convening on Blended/Personalized Learning Models" to support innovative new models as they take shape and scale. We assembled roughly 70 individuals, the majority of whom are practitioners actively experimenting with new models for learning. While they are by no means the only innovators in the space, they represented a healthy cross-section of a rapidly developing field of new models that are experimenting with changes in school structure, technology tools and teacher practice. Our discussions yielded several new insights and reinforced others that are not so new.

As we continue our work, we want to share with participants and the broader education community some of the insights and lessons from the convening itself, and how we hope to use these lessons to inform the broader education ecosystem. Specifically, our goals for this whitepaper are to:

- Share **substantive insights and questions** that emerged from the convening and build demand for future efforts;
- Share **process insights and lessons learned** that may benefit others who seek to "convene" practitioners;
- Provide a brief **summary and synthesis of field-wide efforts** that are shaping the "future of learning";
- Offer **recommendations** for how market participants can better understand where/how they align and might collaborate and learn together more quickly.

3 Insights from Seattle Convening

Planning the Convening

The impetus for the convening was a shared desire to support practitioners who are designing, launching and operating next generation learning models by:

- building a **sense of community** among these professionals;
- promoting **collaboration and collective problem-solving** at both the model and system levels; and
- seeding a **sustained conversation** that can grow to include additional participants over time.

During our initial planning session, we had an interesting discussion regarding the ideal mix of attendees. We ultimately decided that it would be more advantageous to have a range of perspectives, so we chose the broad notion of "personalized learning," though with an emphasis on "blended learning[2]" as a means to achieve it. To describe this group collectively, we coined the term "blended/personalized." Among the roughly 70 attendees, a majority represented 35 practitioner organizations at different stages in their development (i.e., from mature to start-up to in-planning), plus a subset of representatives from philanthropic and research organizations).

Among practitioners, the goal was to have a majority (~70%) of attendees from "blended" models, with the balance comprised of virtual or non-tech-enabled personalized models. We also sought a balance of charter and district perspectives.

With a desire to design a different experience than typical gatherings, we overtly focused on the needs of the practitioners and attempted to address specific field-wide needs. With the underlying belief that the "many answers are in the room", we learned as much as we could ahead of the convening and then structured the day to maximize the participant experience by leveraging their knowledge, skills and instincts in a mix of small and large group activities. In an attempt to model

Model Representatives:
AdvancePath Academics, Inc.; Alliance College-Ready Public Schools; Alpha Public Schools; Carpe Diem; Connections Academy/Connections Learning; Denver Public Schools; Denver School of Science & Technology; Diploma Plus; FirstLine Schools; Flex Public Schools; Florida Virtual School; Future is Now Schools; GameDesk; Generation Schools; Girard Charter Middle School; Hawaii Technology Academy; IDEA Public Schools; KIPP Chicago; KIPP Empower Academy; Kunskapsskolan Education; Miami-Dade County Public Schools – Virtual; Learning Labs + iPrep; New Tech Network; New York City Department of Education iZone; North Carolina Virtual Public School; NYC iSchool; Platform Academies; ReInventing Schools Coalition; Rocketship Education; School of One; SIATech, Inc.; USC Hybrid High School; and VOISE Academy.

2 According to a definition offered by Innosight Institute, blended learning refers to "any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace."

personalized learning, we developed individual session agendas based on the expressed priorities of each attendee. We relied on data from the following three sources to inform the convening design:

- **Existing Knowledge** – we utilized available research (i.e., Innosight Institute, iNACOL, etc.) and ongoing informal conversations with school model operators;
- **Online Survey** – 38 convening invitees responded to a detailed survey that explored themes around school models, utilized technologies, challenges (i.e., "pain points"), and priorities; and
- **Participant Interviews** – we conducted 30-45 minute discussions with representatives from 31 of 35 models, which enabled deeper discussion of models, challenges, and specific goals for the June convening.

The findings from this research, described in more detail below, were used to guide the session design. Core session design principles that emerged from the research included:

- A balance between discussions at the level of model versus those at the level of emerging "field";
- Empowering all participants as both "expert" and "learner" to leverage their experience and acknowledge their questions and areas of interest; and
- Use of unstructured time to enable networking and informal learning.

Pre-convening Research

We share the following high-level findings, which emerged from a combination of survey data and interviews:

- Most participants (~90%) share a general belief in the potential for technology to enable more personalized learning experiences
- A large majority (~65-80%) report consistently high levels of experimentation with several common elements of blended/personalized learning;
- Participants represented a diverse group – both in terms of the developmental arc of their school model(s) and their perspectives on the definitions, trends and priorities in this emerging field;

Other Organizational Representatives:
2Revolutions LLC; Eli and Edythe Broad Foundation; Broad Foundation; Charter School Growth Fund; Michael and Susan Dell Foundation; Donnell-Kay Foundation; EdSurge; Fisher Foundation; Bill and Melinda Gates Foundation; Jacqueline Hume Foundation; iNACOL; Innosight Institute; NewSchools Venture Fund; and Open Education Solutions.

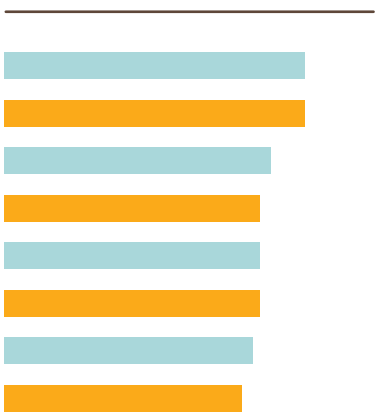
- Most participants reported feeling isolated and/or needing more efficient access to better information (i.e., content, tools/vendors, other models' approaches, strategies to integrate data/technology, etc.); and
- Participants reported very strong interest (94%) in "working collaboratively to develop shared solutions" to common challenges.

On the next few pages, we share more detailed insights that emerged from our pre-convening research.

Use of Blended/Personalized Learning Elements

Despite managing (or planning) a diverse array of models, a majority of participants report experimenting with several common elements of blended/personalized learning.

Topic	#	%
Personal/individual learning profiles	29	81%
Creative staffing strategies	29	81%
Technology-driven customized content prescriptions for individual learners	26	72%
Creative use of time	25	69%
Competency/proficiency-based learning pathways	25	69%
Teacher-driven customized content prescriptions for individual learners	25	69%
Creative use of physical space	24	67%
Adaptive assessments	23	64%



Role of Technology in Personalization

Participants overwhelmingly agree that personalized learning experiences are better for students, and that technology can play an important role in achieving more personalized learning. They are less uniformly convinced on arguments of its efficiency and cost-effectiveness.

Topic	#	%
Personalized learning experiences produce better student outcomes	34	92%
Instructional technology tools enable more personalized learning experiences	32	89%
Instructional technology tools enable better student outcomes	32	89%
Personalized learning models make learning more efficient	30	81%
Instructional technology tools make learning models more efficient	27	75%
Instructional technology tools make learning models more cost-effective	24	67%

*Strongly agree/Agree

Attendee Models by Type

Building upon the definitions advanced in Innosight Institute's recent report, "The Rise of K-12 Blended Learning[3]," the ***rotation*** model is reported as the most common model type self-reported by convening attendees, followed by ***face-to-face*** and ***flex***.

Attendee Model "Type"	#	%
Rotation (students rotate between learning online in a one-to-one, self-paced environment and sitting in a classroom with a traditional teacher)	12	34%
Face-to-face Driver (teachers still deliver most content; online learning supplements, often in the back of the room or in a technology lab)	6	17%
Flex (online platform delivers most curricula; teachers provide on-site support)	5	14%
Online Lab (online platform delivers entire course, but in a brick-and-mortar environment)	1	3%
Self-blend (students remotely take one or more online courses to augment their schools' traditional, brick-and-mortar course offerings)	1	3%
Online Driver (online platform and teachers deliver all curricula; students work remotely for the most part; face-to-face check-ins may be optional/required)	1	3%
None of the above "fits" my organization/model	9	26%

3 Produced in collaboration with the Charter School Growth Fund and Public Impact.

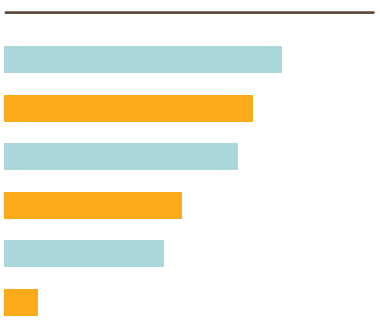
However, only one-third (32%) of participants reported that this taxonomy captures the nuance in the emerging field of blended/personalized learning. Following are a few of the reported questions and concerns about the existing taxonomy:

- The current six definitions segment the market only on "delivery" and "role of technology" to the exclusion of pedagogical approaches to learning or evidence of effectiveness;
- It is difficult to capture schools' "current" versus "planned" approaches, which reinforces the pace at which model experimentation is occurring;
- Some models "fit in between" or represent "a combination of several types on any given day";
- Because this is a very young field, new approaches are being tried every day and there are "infinite possibilities, so we should be careful about forcing models into boxes"; and
- Not all personalized learning models are even leveraging technology yet.

Common Challenges in Technology

A significant majority of attendees continue to struggle with identifying, selecting and implementing technology to support personalization.

Topic	EC*	C*	Total
Aggregating data from multiple sources	44%	31%	75%
Customized content prescriptions for individual learners	31%	36%	67%
Finding/adapting the appropriate assessment platform(s)	19%	44%	63%
Single sign on and user provisioning for multiple content and assessment vendors	17%	31%	48%
Finding/adapting the appropriate LMS/CMS	23%	20%	43%
Choosing appropriate hardware	3%	6%	9%



*EC=extremely challenging; C=challenging

Common Challenges in Content and Assessment

A majority of attendees report finding appropriate content, but many struggle to incorporate multiple learning modalities and adaptive assessment strategies

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Topic	EC*	C*	Total
Identifying and using adaptive assessments	9%	46%	55%
Integrating different modalities of learning	0%	54%	54%
Finding appropriate instructional content in other subjects	6%	37%	43%
Finding appropriate instructional content in literacy	11%	23%	34%
Finding appropriate instructional content in math	3%	20%	23%

*EC=extremely challenging; C=challenging

Common Challenges in Human Capital

A majority of attendees have trouble recruiting staff, delivering professional development and identifying effective change management strategies targeted to blended learning environments.

Topic	EC*	C*	Total
Recruiting the right school leaders	17%	43%	60%
Change management strategies	26%	29%	55%
Professional development on blended/personalized approaches	9%	46%	54%
Recruiting the right teachers	17%	37%	54%
Developing the right mix of staff roles	3%	43%	46%
Recruiting other staff members	3%	37%	40%

*EC=extremely challenging; C=challenging

Common Challenges in Optimizing Time

A majority of attendees are still working to determine the best uses and configurations of time within the school day and year.

Topic	EC*	C*	Total
Optimizing teacher time (e.g. direct instruction, planning, PD)	12%	50%	62%
Designing the school schedule (day/week/year) to best meet your needs	12%	41%	53%
Enabling the right mix of staff planning, PD, direct instruction	9%	41%	50%

*EC=extremely challenging; C=challenging

Other "Major" Challenges

In addition to the above, several attendees also highlighted the following as significant obstacles in their work:

- **Extra Degree of Difficulty** – the introduction of a blended approach generally does not reduce the complexity of starting a new school, but rather adds additional complexity, both in terms of operational challenges and gaps in understanding by funders and policymakers.
- **Funding** – it should not surprise us that entrepreneurs reported challenges attracting adequate risk capital. Many also reported frustrations both with access to risk capital and their ability to show economic return on investment so early in model development. Many also mentioned the unpredictability that results from the current economic climate, which, although not unique to blended models, may be amplified by the "newness" of the approach.
- **Facilities** – participants reported difficulty finding suitable locations that can be affordably converted to meet their models' needs. While finding adequate facilities is a universal challenge, blended operators that are rethinking the use of physical space often experience even greater difficulty securing the right location; and space appropriate to their model.
- **Policy Context** – given that state and local policy environments vary significantly and are changing quickly, blended operators report struggling to implement their models in a policy context that may limit flexibility.

Convening Insights

In the weeks following the convening, our teams reflected on what we learned as it related to the substance of the conversations, as well as the process itself, to better understand the extent to which the convening had met our objectives. We also surveyed all participants for their reflections. What follows is an array of lessons and insights gleaned from the convening, organized into three categories.

> "Communication across the revolutionary divide is inevitably partial."
> Thomas S. Kuhn

High-level Insights

We captured the following substantive and process-related insights:

Substantive Insights

- **Uniting Around "Personalization"** – personalization of the student learning experience emerged as the common denominator among the group, but this consensus started to unravel when discussion turned to "how" desired personalization will be achieved. Throughout planning and during the event, practitioners expressed an array of motivations and decidedly different pedagogic approaches for realizing their goals – including whether or not technology should factor prominently.

- **A Many-headed Hydra** – despite our attempt to converge around the theme of "blended/ personalized" learning, it was clear that ***the "field" is not one thing***. Interestingly, when asked during group discussion whether participants felt their work was "part of a broader movement," only about half of the hands went up. While there are many points of commonality, even the 35 attendee models are pursuing different (and sometimes competing) objectives and are motivated by various beliefs about learning.

- **Lack of Common Language/Taxonomy** – the deeper we got into group discussions, the more apparent it became that the field continues to suffer from a "Tower of Babel" effect, with colleagues often talking past one another. Some examples included: differences in the usage and meaning of the terms "hybrid," "blended" or "online" learning; distinctions between "cost-effective" and "cost-efficient"; and different or unspoken assumptions regarding the benefits of "personalization." When terminology isn't clear, collaboration is hindered, comparisons are

muddled, and the public often is left confused. A common language/taxonomy would enable more productive, sustained discussions about the work, and foster new and different types of collaboration.

- **Common Pain Points** – there are a number of specific issues that attendees are wrestling with – and around which they expressed strong interest in pursuing potentially common solutions, including:
  - Need for better information – as consistent with pre-convening findings;
  - Desire for human capital strategies aligned with blended/personalized learning models;
  - Need for increased access to better digital content and assessments to meet instructional needs – digging beneath a general interest in more "high-quality content," practitioners expressed a need for a wide variety of different types of content and assessment to meet specific learning objectives within their models;
  - Strategies and platforms to personalize learning – systems that can utilize existing student data and preferences to build individual/personalized learning plans (ILP/PLP) for each student is emerging as something of a "holy grail" across the industry; and
  - Technology infrastructure and interoperability – practitioners do not want to rely on a single vendor for all software, and yet it is challenging to manage multiple content and assessment vendors. In particular, participants described a preference for affordable solutions that enable functionality such as "single sign-on" and common data dashboards.

Process Insights

- **Un-conference** – overall, attendees reported that the convening format succeeded in creating a different approach for engaging a community of practitioners. While not perfect, the sandbox design format – as distinct from the all-too-common talking heads panel format – created more white space that allowed participants to explore new ideas and models and create new connections with colleagues. Future efforts will improve on this approach.

- **Homework Helps** – our investment in pre-convening research, the results of which were shared with participants in advance, made it possible to begin the conversation at a higher level and with confidence that the group had a shared context for discussion.

- **The Network Effect** – this event, like most, reinforced the value of simply bringing practitioners together. Nearly all participants reported benefiting from time together, as well as the formal and informal learning and the ability to go deeper in person. Future efforts should incorporate even more time for these opportunities to connect.

- **Less is More** – While the structure of the convening enabled exploration of multiple topics, some participant feedback suggested that it was too broad and not deep enough in areas of real challenge. To some, it felt more generative than outcomes-based, which was widely appreciated, but felt like the beginning of a discussion rather than a stand-alone event.

- **Limits to Crowd-sourcing** – while it is clear that some of the answers to participants' questions were "in the room," many of the unanswered questions were common to most in the room. Participants appreciated efforts to leverage practitioners' expertise, but future convenings will benefit from clearer observer/participant roles, which can add tremendous value in pushing the thinking, while preserving the benefits of a participatory design process.

- **Birds of a Feather** – while the diversity of perspectives represented by attendee models – which varied in approach, geography and maturity – was helpful in parts of the conversation, it also limited the depth of some conversations. Participants expressed feeling a big gap in the needs between models of different types and stages of development, which underscored the need for better alignment between each session's objectives and participant composition.

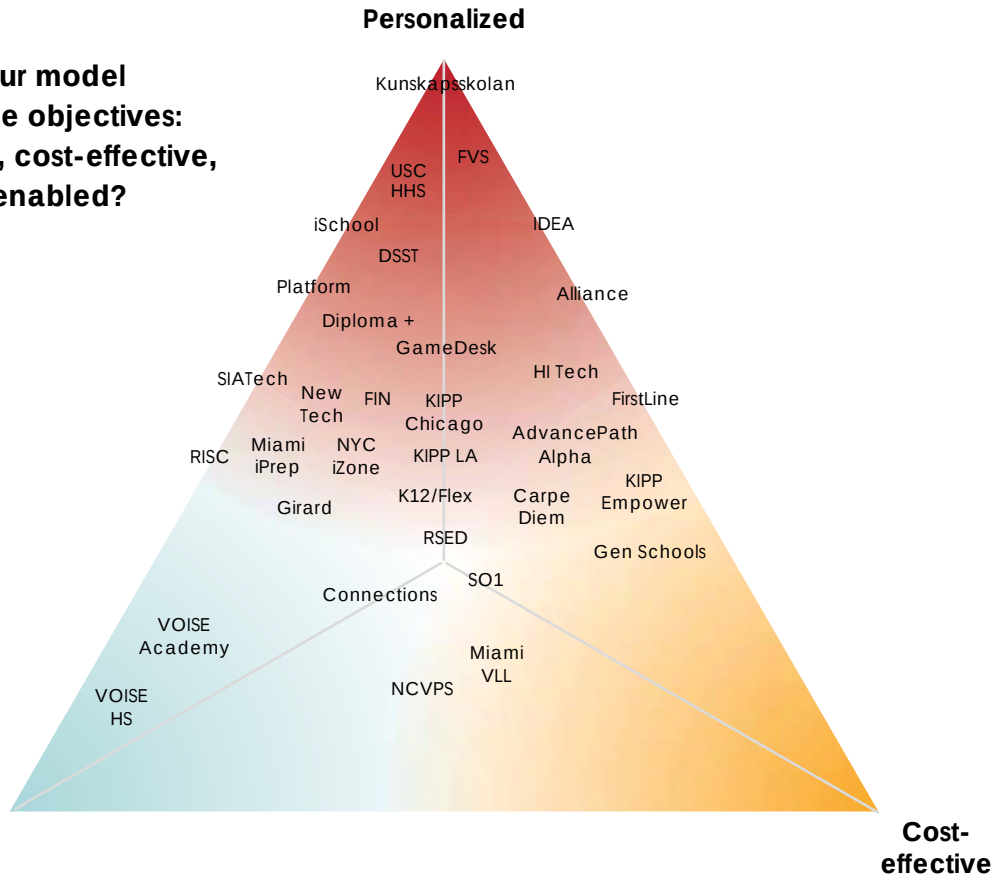
- **Sign Me Up** – in the end, the convening by all accounts represented a successful beginning to a much-needed set of conversations among practitioners of new learning models. As evidenced by survey data, the vast majority of participants perceived value from the convening – i.e., 100% strongly agreed/agreed that they "found the day valuable"; 93% strongly agreed that "the opportunity to connect with new/existing colleagues [was] helpful"; and 100% of those who competed the online survey would like to attend another convening.

Making New Meaning

While data from pre-convening research generated a number of insights that helped shape the structure of the day, certain activities or nodes of conversation during the event gave rise to new knowledge or deeper understanding. For example, one exercise invited representatives from each of the learning models to answer key questions about the dimensions of their model design by "placing" themselves (via a sticky note) on a wall poster. See Figures 1, 2 and 3 below. While these were completed "in the moment" and represented a point-in-time snapshot, the results are nonetheless illuminating.

Figure 1:

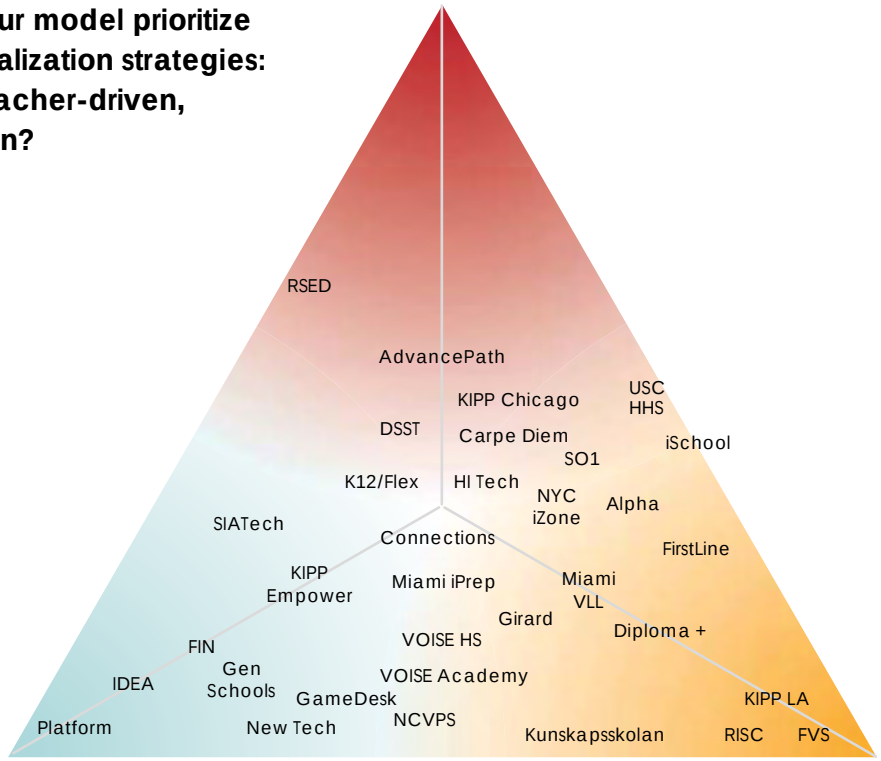
How does your model prioritize these objectives: personalized, cost-effective, technology-enabled?



Most participants prioritized "personalized" and "tech-enabled" as core objectives driving their learning models. It is interesting to note that in this exercise and throughout the day, far fewer participants prioritized "cost-effective," a design parameter that we believe will continue to become increasingly important in the context of our resource-constrained environment.

Figure 2:

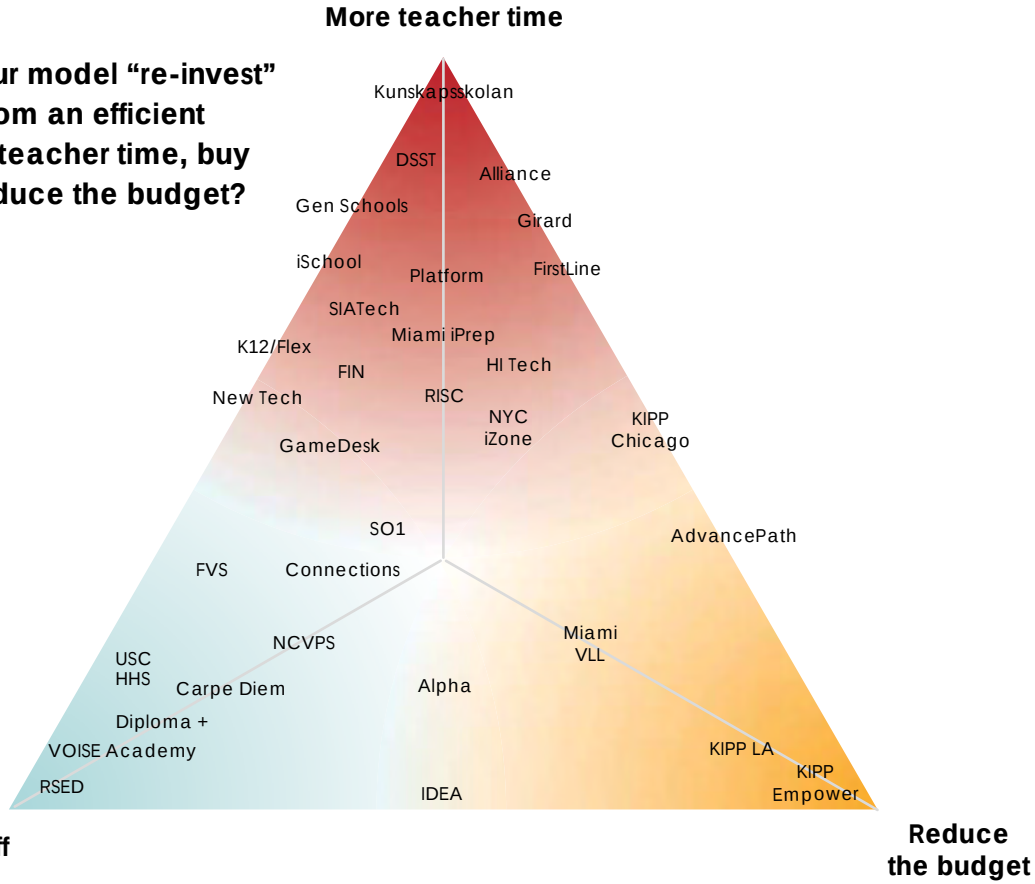
How does your model prioritize these personalization strategies: algorithm, teacher-driven, student-driven?



Because personalization emerged as such a key driver of most models, it was helpful to dig a bit deeper. The exercise illustrated the tension among technology, student agency and a more teacher-directed approach. Relative to the amount of press attention that has been placed on the focus of technology in efforts to personalize learning, it is interesting to note how few models placed themselves near the "algorithm" point on the map. As technologies continue to evolve, we anticipate that more models will experiment in this direction.

Figure 3:

How does your model "re-invest" the savings from an efficient model: more teacher time, buy more stuff, reduce the budget?



Reinforcing the prominent themes from the previous two exercises, most models appeared to be focusing additional investments on more teacher time to better enable personalization. This pattern – at least among the 35 participant models represented at this convening – suggests that the strong interest in leveraging technology to develop "blended/personalized" learning models is not likely to come at the expense of the importance of effective teaching.

From among the range of specific "common challenge" topics that groups had an opportunity to explore in greater detail throughout the day, we share below a few examples of the new knowledge generated through some of these conversations:

Figure 4: Constructing New "Educator" Roles for a Blended Context

Recognizing the need to rethink the definitions, roles and titles of adults in the learning process, participants expressed interest in working together to develop:

- Clarity on the range of new job configurations in this emerging field (e.g., certified versus uncertified; full- versus part-time; "teacher" versus "coach," "guide," "facilitator," "concierge," or other);
- A matrix delineating new roles, responsibilities and relationships among educators;
- A deeper understanding of the economics and cost implications of educator roles;
- Competencies against which these educator roles can be recruited, selected, on-boarded and managed;
- Clear career pathways that promote and retain effective educators;
- Resources to support more effective training and professional development (e.g., articles, videos, site visits around promising practice);
- Profiles of effectiveness in "blended" models; and
- Awareness of the need to develop a new culture and understanding about the nature of learning and the role of educators within it.

Figure 5: Group-generated Criteria for Selecting Online Content

Participants developed this beginning list of criteria that they keep in mind as they search and select from among online content options:

- Alignment to national and state standards (i.e., Common Core);
- Depth and choice in scope and sequence (e.g., ability to customize for individual learners as opposed to forcing all students down the same pathway);
- Student-centered/engaging;
- Performance-based learning opportunities;
- World-relevant content and context;
- Content appropriateness;
- Platform agnostic/technology interoperability; and
- Value, cost-effectiveness and flexible pricing

Figure 6: In Search of Integrated Assessment Strategies

The need for better, more integrated assessment tools and strategies was an important theme across the day, with participants prioritizing the following needs:

- Strategies to leverage traditional assessments where appropriate;
- Ability to integrate embedded, "inside the activity" assessments that gauge proficiency within learning activities;
- Strategies to assess deep conceptual learning (e.g., demonstrations of understanding);
- Developing appropriate assessments for project-based learning modalities (e.g., performance assessments);
- "Stealth" assessments (e.g., learner analytics from keystroke data that capture learner tendencies);
- Third-party validation of micro-formative assessments to confirm content and skill mastery in a digital context; and
- Desire for new tools or platforms that enable schools to aggregate assessment data from across multiple learning modalities and activities.

4 Reflection & Inflection

The process of developing and hosting the 2011 convening has influenced the thinking, practice and priorities of each of our organizations. Because we share a commitment to transparent learning – particularly in light of the fact that the industry is evolving so quickly and will require greater collaboration if we are to capture this moment of opportunity to transform our approach to learning – we share the following insights:

- **Bill & Melinda Gates Foundation** – The Convening reinforced our belief that this is important work that is worth supporting. Despite coming at this work from many different perspectives, these practitioners are all making contributions that are student-centric, innovative and may very well lead to dramatic, positive changes in instructional design and school models. We are committed to future convenings of blended/personalized practitioners, though likely with a focus on building Communities of Practice around key areas of interest that intersect with our core strategy (e.g., content and assessment, data systems). Through our Next Generation Models strategy, we are helping to solve several of the key issues expressed by practitioners. In particular, we are providing risk capital to 20 pre-launch charter and district entrepreneurs through the Next Generation Learning Challenges: Wave 3a (see Appendix for details), and are working to alleviate integration and interoperability challenges in the education technology market through our support of the Shared Learning Collaborative.

- **2Revolutions LLC** – The Convening further informed the development of the "Future of Learning" as our central thesis, which includes but is not limited to the prominent themes of both "blended" and "personalized" learning. Viewing our portfolio as a form of action research, 2Revolutions is now focused on designing and launching Future of Learning *models* and helping to catalyze the *conditions* within which they can thrive. We believe it will be critical that the field develop more efficient ways of communicating and collaborating, so we are organizing our core assets (i.e., KnowledgeBase, TalentCloud and Design Methodology) around a clear taxonomy. We're also currently working with a range of funders and others to collaborate on a broader "Communities of Action" strategy – to accelerate what we are learning and to share these lessons broadly. For those interested to learn more about what we mean by "Future of Learning," including an animated web video, please visit www.2revolutions.net.

5 A Vast, Shifting Market Landscape

One of the key messages that emerged from the convening was the shared challenge around common language and taxonomy. For example, we often use the same or similar language, but mean different things – and sometimes we use different language, but mean the same or similar things. Without shared language, it is virtually impossible to engage in a sustained and productive discussion about the contours of our rapidly evolving field. This reality has pushed us to look across the broader market to better understand emergent trends in order to both help position our collective work and to help promote increased alignment and opportunities for collaborative problem-solving.

> "The way forward is paradoxically to look not ahead, but to look around."
> John Seely Brown

Figure 7 below lists a range of organizations that we believe are contributing to the ongoing development of the "future of learning." Brief profiles of each are provided in Appendix A. ***This is intended to serve neither as an exhaustive list of relevant efforts nor a detailed treatment of those that are included***. Nonetheless, it provides a helpful illustration of the breadth of organizations that are currently shaping the field. A survey of these efforts informs our analysis of the broader market landscape, particularly with regard to the use of various terms and taxonomies to describe each organization's respective priorities. Below we provide a handful of insights based on our research, as follows:

Figure 7: Organizations Included in "Future of Learning" Market Research (in alphabetical order)

Foundations	Organizations	Tech Companies
Carnegie Corporation of New York	Council of Chief State School Officers (CCSSO)	Apple
Charter School Growth Fund	FrameWorks Institute	Cisco
Ford Foundation	FutureLab (UK)	Dell
Bill & Melinda Gates Foundation	Ideas Lab (Australia)	IBM
William & Flora Hewlett Foundation	Immersive Education Initiative	Intel
John D. & Catherine T. MacArthur Foundation	iNACOL	Microsoft
Nellie Mae Education Foundation	Innosight Institute	
NewSchools Venture Fund	KnowledgeWorks	
Stupski Foundation	Organization of Economic Cooperation & Development (OECD)	

Cacophony of Language

First, our investigation confirmed what emerged from the June convening: that the market is ***cluttered with overlapping and competing language***. As Figure 8 below illustrates, there are a range of terms that are currently being used, sometimes interchangeably, to describe various efforts.

Figure 8: Terminology Describing the Learning Landscape

Emerging Consensus on "Success"

Second, while the definitions still vary, ***there is emerging consensus regarding what knowledge and skills students will need in order to be prepared for a complex and fast-evolving future*** – in other words, a common definition of student "success" in future of learning models. For example, a subset of industry organizations – including the Carnegie Corporation of New York, the Council of Chief State School Officers, the William and Flora Hewlett Foundation, and the Stupski Foundation – appear to be coalescing around the need for students to:

- Master core academic content;
- Think critically and solve complex problems;
- Work collaboratively;
- Communicate effectively; and
- Learn how to learn.

In addition, a global research collaborative spearheaded by Intel, Cisco and Microsoft – ***Assessment & Teaching of 21st Century Skills*** (AT21CS), which includes participation from 60 of the world's top education research institutions and over 250 researchers, practitioners and industry leaders – has captured similar priorities with different language. AT21CS advocates that students must develop:

- **Ways of thinking**: creativity, critical thinking, problem-solving, decision-making and learning;
- **Ways of working**: communication and collaboration;
- **Tools for working**: information and communications technology (ICT) and information literacy; and
- **Skills for living in the world**: citizenship, life and career, and personal and social responsibility.

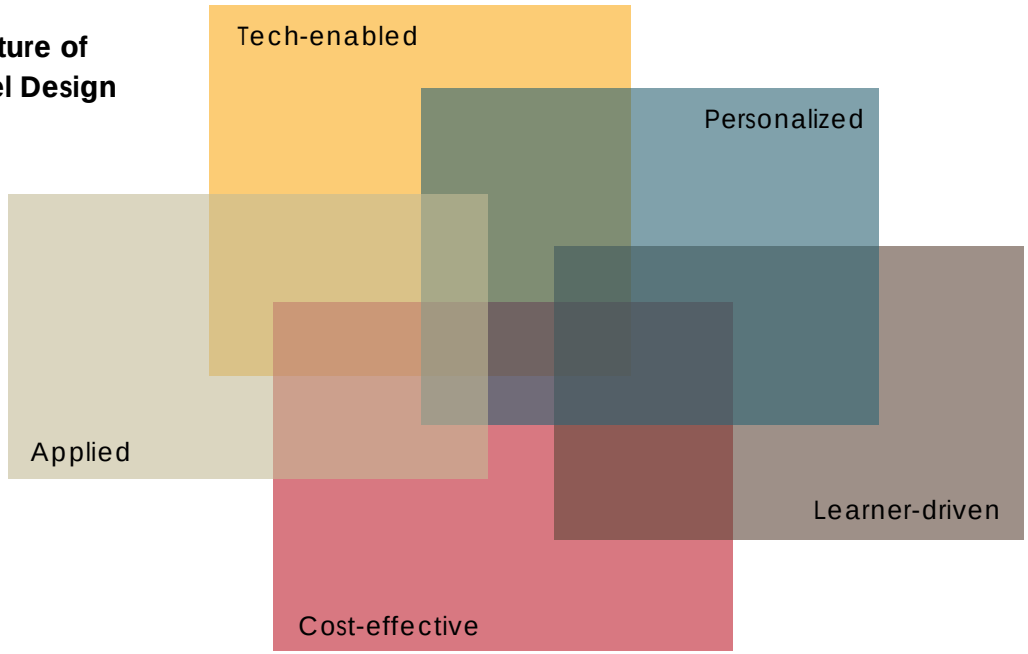
These lists are not necessarily representative of everything we want for our young people, but they do reflect the emergence of some cross-sector agreement about the outcomes we care about. As such, we believe this type of alignment represents helpful way to anchor discussions regarding student success in the context of new learning models.

Still Struggling With the "How"

Third, while there may be an emerging consensus regarding how we define what it means to prepare students for the future , ***there is less consensus regarding which attributes of the learning models will produce desired outcomes*** (the "how"). There is an array of innovative model development work currently underway – and an equally diverse set of words to describe this work.

Fortunately, based on our analysis of the 25 organizations whose work we have investigated, we believe it is possible to distill the cacophony down to a core set of five learning model attributes, as illustrated in Figure 9 below and in the definitions in the margin at right. We do not intend to suggest that these are the only important aspects of new learning models, but rather that they represent a common denominator and an important filter when designing or studying these new models. Not coincidentally, 2Revolutions is now actively leveraging these as "design parameters" both in our Future of Learning design methodology and our efforts to map the contours of the evolving market landscape.

Figure 9:
High Priority Future of Learning Model Design Principles



- **Personalized:** to fit the unique needs of each learner
- **Learner-Driven:** to empower kids to assert some ownership over their learning
- **Applied:** to enable kids to learn by doing
- **Tech-Enabled:** to leverage the right technologies for all learners – both kids and adults
- **Cost-Effective:** to be feasible at scale

Open Questions

Despite the progress the field appears to be making in defining a pathway toward increased experimentation with and adoption of Future of Learning models, many questions remain unanswered:

- What role should technology play in instructional delivery? What are its limitations?
- What new types of digital and non-digital content and tools are necessary to support these new models? How do we support an ecosystem that produces them?
- What implications does the adoption of technology have on teacher roles? On human capital strategies more broadly?
- What will be the implications of providing students more ownership over their learning? How do we train teachers to enable this in ways that contribute to rigorous learning experiences?
- How do we assess for the outcomes we value? How do we assess individual mastery in a context of personalized learning? If our current assessments are not adequate, how should we go about creating new ones?
- How do we measure and compare organizational/model effectiveness across learning environments with divergent goals and approaches?
- What policy changes are necessary to enable these models to emerge, scale and remain scalable over time?
- What is the appropriate balance between cost-effectiveness and learning effectiveness? Are these priorities necessarily mutually exclusive?
- What strategies can be used to scale successful models to maximize impact and sustainability?

6 Recommendations

Based on the insights that emerged from the convening, as well as from the additional market research and analysis we conducted, we offer the following recommendations for consideration by our colleagues across the field:

1. **Communities of "Action"** – given how quickly the field is evolving, we think it will be important not only to continue to bring practitioners (and others) together, but also to support and challenge targeted groups to gather around answering specific questions and/or solving specific problems they collectively face. For instance, whereas communities of "practice" have become popular as a potentially effective strategy to enable collaborative discussion, these events have not always produced tangible benefit either to participants or the field. Instead, we propose bringing practitioners of new learning models together in an action-oriented, design-inspired format to roll up their sleeves, produce something that informs their own practice, then share it with the field more broadly. These examples of "flash-produced" learning can enable meaningful collaboration opportunities around high-priority topics, such as: need for better information, human capital strategies, need for better content and assessment tools, and others common needs as they emerge.

2. **"Meta" Learning Agenda** – we believe it will be critical that we begin to develop ***a more coherent learning agenda across the field***. The goal is not to encourage premature or artificial alignment around a few ideas. Instead, because practitioners are experimenting with a range of different approaches – and motivated by different and sometimes competing beliefs regarding the goals of these new learning models – we advocate creating as big an umbrella as possible. By challenging ourselves to be clear about the beliefs, strategic priorities and testable hypotheses associated with each model, we believe we will be able to learn more quickly what is most effective in which contexts with which students, and in service of which learning objectives. The more connected and comprehensive this learning agenda becomes, the more valuable it will be. This approach also holds the potential to help us identify areas where new or additional experimentation is needed.

3. **"Future of Learning" Taxonomy** – to support each of the above recommendations, we believe the field will benefit from efforts to develop a common taxonomy for this fast-evolving market. Having clear, shared language to describe various efforts – particularly when connected to an explicit learning agenda – should help enable practitioners to engage and collaborate more successfully, prevent them from continuing to talk past one another, and facilitate enlisting public will for the work ahead. Over time, this strategy can help all market participants to navigate the transition that's underway. As mentioned above, 2Revolutions is investing significant effort in the development of a nested taxonomy – which now forms the backbone of our own work and which we share with the field as one model for consideration.

4. **Aggregate Demand** – because the market is evolving quickly, it will be helpful to continue to leverage practitioners to continually define for tool developers what they need – i.e., to aggregate their preferences into a set of criteria to which the "supply" side can respond. This creates the potential for cost-savings for model practitioners, as well as other benefits of standardization across the industry over time.

7 Conclusion

Despite significant activity and progress, one thing seems clear: we are still at the beginning of this complex work to transform learning. We need to open the floodgates of innovation, while finding ways to more effectively capture this moment of opportunity than has been true for the charter school movement over the past 10-15 years. As we embrace more active experimentation and risk-taking in the development of new learning models, we hope we can find more efficient, effective and authentic ways to share what we are learning with one another. Transparency, always a rare commodity, will be essential – from practitioners, funders and policymakers. We must challenge ourselves to share openly what we are learning about what's working, including how we know and how we're measuring success. But equally important is to share what's not working and address the questions that remain to be answered. If we do, we'll all learn together more quickly what it will take to shape the future of learning for a generation that desperately needs it. In the meantime, we invite your feedback, questions and participation in the exchange of ideas to help advance the mission so many of us share.

> "This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning."
> Winston Churchill

Appendix - Profiles of select "Future of Learning" efforts

Below are brief summaries of several organizations and initiatives that were included in our market research. ***Please note that this is not intended to serve either as an exhaustive list of all relevant efforts or a detailed treatment of those that are included.*** Instead, these brief profiles inform our analysis of the broader market landscape, particularly with regard to the various language and taxonomies used to describe each organization's respective priorities. Organizations are presented in alphabetical order:

Apple

Website	http://ali.apple.com/acot2
Location	International
Type	Technology Company
Description & Key Themes	Placing individual students at the center, ***Apple Classrooms of Tomorrow*** (ACOT2) has identified six design principles for the 21st Century high school: • 21st Century Skill Outcomes; • Relevant and Applied Curriculum; • Informative Assessments; • Social and Emotional Connection; • Culture of Creativity and Innovation; and • 24/7 Access to Tools and Resources

Carnegie Corporation of New York

Website	http://carnegie.org/programs/urban-and-higher-education/
Location	National
Type	Foundation
Description & Key Themes	An important new area for the Corporation is advancement of next generation learning (NGL), which they describe as new teaching and learning practices that prepare today's students for tomorrow's challenges, which would enable our education system to prepare more students for productive adult lives in the 21st Century. In a series of reports they produced in collaboration with the Stupski Foundation and The Parthenon Group, Carnegie describes NGL as: • Student-centered; • Personalized; • Anytime/anywhere experiences that result in mastery of rigorous academic content; • The ability to think critically and solve complex problems; • Work collaboratively; • Communicate effectively; and • Learn how to learn. They have also examined the policy environment and conditions that will be needed to scale these innovations over time.

Charter School Growth Fund

Website	http://chartergrowthfund.org/what.next.html
Location	National
Type	Foundation/Venture Philanthropy
Description & Key Themes	In addition to its investments in scaling effective charter management organizations, CSGF's ***Next-Generation School Investment*** strategy plans to invest ~$30 million to support entrepreneurs developing next-generation schools in the charter sector. Many of these schools will "blend" learning by combining online learning technology with the key tenets of successful bricks-and-mortar CMOs, creating individualized learning experiences for students and delivering dramatically better results at the same or lower cost. CSGF recently collaborated with the Innosight Institute and Public Impact on "The Rise of K-12 Blended Learning" and "The Rise of K-12 Blended Learning: Profiles of Emerging Models," which identify early trends around blended learning and the new school models that are emerging.

Cisco

Website	http://www.cisco.com/web/about/citizenship/socio-economic/globalEd.html
Location	International
Type	Technology Company
Description & Key Themes	Cisco has advocated a move toward a ***Learning Society***, which is defined by the following principles: • Engenders a culture of learning throughout life. • Aims to develop motivated, engaged learners who are prepared to conquer the unforeseen challenges of tomorrow as well as those of today. • Takes learning to the learner, seeing learning as an activity, not a place. • Believes that learning is for all, that no one should be excluded. • Recognizes that people learn differently, and strives to meet those needs. • Cultivates and embraces new learning providers, from the public, private, and NGO sectors. Develops new relationships and new networks between learners, providers (new and old), funders, and innovators. • Provides the universal infrastructure they need to succeed—still physical but increasingly virtual. • Supports systems of continuous innovation and feedback to develop knowledge of what works in which circumstances. Cisco also has outlined an ***Education 3.0 "paradigm shift"*** with the following attributes surrounding a core focus on 21st Century Learning: • Achieved in holistic transformation; • 21st Century pedagogy; • 21st Century skills; • Enabled by technology; and • Supported through an adapted reform agenda.

Council of Chief State School Officers (CCSSO)

Website	http://www.ccsso.org/What_We_Do/Next_Generation_Learners.html
Location	National
Type	Organization
Description & Key Themes	The Council's ***Next Generation Learners (NxGL)*** work seeks to build the capacity of state education leaders to fully transform public education by creating personalized learning systems that prepare all students-regardless their circumstance-for life, meaningful work, and citizenship. Personalized learning systems shift the focus from "schooling" to "learning," a bold approach that puts the needs and interests of children-from birth through adolescence-front and center, rather than those of adults or the system. The work of the NxGL initiative is rooted in six critical attributes, or essential conditions, of an education system that is focused on the learner: • Planning for personalized learning • Comprehensive systems of learning supports • World-class knowledge and skills • Performance-based learning • Anytime, everywhere opportunities • Authentic student voice In addition, the ***Innovation Lab Network (ILN)*** engages schools, districts, and state education agencies working to identify new designs for public education that empower each individual student to thrive as a productive learner, worker, and citizen. CCSSO facilitates this network of states, which includes Kentucky, Maine, New Hampshire, New York, Ohio, West Virginia, and Wisconsin, to support programmatic, policy, and structure design work within each participating state and across the network.

Ford Foundation

Website	http://www.fordfoundation.org/issues/educational-opportunity-and-scholarship/transforming-secondary-education
Location	National
Type	Foundation
Description & Key Themes	The Ford Foundation believes that the U.S. public education system's six-hour school day and 180-day school year do not provide enough time to prepare young people to succeed in the 21st century. Promising innovations in curriculum, teaching, accountability and technology are constrained by the traditional school clock and calendar. As a result, Ford's work seeks to make more and better learning time the "new normal" in American education in underserved communities by matching the school day and year to the learning needs of students and the lives of working families. Specifically, they support efforts to replicate what works, creating systems of schools that: • Provide additional hours of academic instruction, a well-rounded 21st-century curriculum and more personalized learning relationships with adults; • Integrate traditional schooling with after-school, out-of-school, and anytime/anywhere learning opportunities; and • Redesign how the work of students, teachers and community partners is organized.

FrameWorks Institute

Website	www.frameworksinstitute.org
Location	National
Type	Organization
Description & Key Themes	The mission of the FrameWorks Institute is to advance the nonprofit sector's communications capacity by identifying, translating and modeling relevant scholarly research for framing the public discourse about social problems. FrameWorks designs, commissions, manages and publishes communications research to prepare nonprofit organizations to expand their constituency base, to build public will, and to further public understanding of specific social issues. FrameWorks has conducted deep analysis of communication challenges associated with Digital Media and Learning. Currently, the organization is working with a large group of national foundations to help define the "Core Story of Education," which will attempt to put forward a narrative into which ongoing efforts to transform education can fit.

FutureLab

Website	www.futurelab.org.uk/hubs
Location	International – United Kingdom (UK)
Type	Organization
Description & Key Themes	Futurelab believes all young people should benefit from a rich, futures oriented and technologically enabled education. As a result, Futurelab aims to extend the impact of its work by developing a network of ***Futurelab Hub*** schools, which are defined as schools, academies, federations or colleges that: • Adopt a disciplined approach to school improvement based on action research involving staff and students to transform the quality of learning and teaching; • Work at the leading edge of technology and learning; • Have a relentless and rigorous focus on their core operational business of improving learning and teaching combined with a strong emphasis on base-lining and demonstrating successes; • Optimize all their available resources to deliver pedagogical benefits; • Actively engage with world class research and materials and proven, yet innovative, approaches to school improvement; • Have gained endorsement to offer FutureLab services, materials, support and training to other schools; and • Want to achieve spread and take up of new approaches to learning across the schools in their regions.

Bill & Melinda Gates Foundation

Website	http://www.gatesfoundation.org/postsecondaryeducation/Pages/next-generation-learning-white-paper.aspx
Location	National
Type	Foundation
Description & Key Themes	In addition to its investments in College-Ready Education that will inform the future of learning, the Gates Foundation has been increasingly committed to ***Next Generation Learning***. In order to support this vision of next generation learning, Gates believes the education sector needs three things: • instructional building blocks for students and teachers; • innovative learning models to demonstrate what's possible; and • an enabling environment that allows innovation to take root and thrive. The Foundation has contributed significant resources to support ***Next Generation Learning Challenges***, a nonprofit partnership – among EDUCAUSE, the League for Innovation in the Community College, iNACOL, and the Council of Chief State School Officers – that seeks to pinpoint technology solutions that can measurably improve the quality of learning experiences and improve students' college readiness and chances of completion. Gates has also spearheaded the development of a ***Shared Learning Infrastructure***, a shared service that is designed to help educators address the Common Core standards through access to data, resources and tools.

William & Flora Hewlett Foundation

Website	http://www.hewlett.org/programs/education-program/deeper-learning
Location	National
Type	Foundation
Description & Key Themes	The Hewlett Foundation adopted a new focus on ***Deeper Learning*** after months of research and analysis – including more than 100 interviews with top thinkers in the fields of education, business, and public policy. Deeper learning delivers the skills and knowledge students will need to succeed in a world that is changing at an unprecedented pace. Deeper learning prepares students to: • Master core academic content • Think critically and solve complex problems • Work collaboratively • Communicate effectively • Learn how to learn (e.g., self-directed learning) Over the course of their exploration, Hewlett found widespread agreement that America's schools must shift focus dramatically in order to prepare all of our children to succeed in a fiercely competitive global economy and tackle the complex issues they will inherit. The stakes are high, particularly for low-income students who attend low-performing schools with persistent racial and ethnic achievement gaps that fail to prepare them for college and careers.

IBM

Website	http://www.reinventingeducation.org
Location	National
Type	Technology Company
Description & Key Themes	The ***Reinventing Education Change Toolkit***, based on the work of Harvard Professor Rosabeth Moss Kanter, is a website created by IBM to help education professionals be more effective at leading and implementing change. The Reinventing Education Change Toolkit was created through the collaborative effort of Rosabeth Moss Kanter and Goodmeasure, Inc., IBM's Reinventing Education project, together with Council of Chief State School Officers (CCSSO), National Association of Secondary School Principals (NASSP), and National Association of Elementary School Principals (NAESP). The Change Toolkit helps educators to: • Diagnose their situation; • Get quick, relevant advice; • Poll colleagues and get anonymous feedback about progress; • Read real-life vignettes from other educators about their experiences leading and managing change; • Plan change initiatives or projects; and • Collaborate with their team and hold on-line discussions. While the Toolkit is not targeted directly at promoting "future of learning" models, its emphasis on designing and implementing large-scale change initiatives is an important contribution to the field.

Ideas Lab

Website	http://www.ideaslab.edu.au
Location	International – Australia
Type	Organization
Description & Key Themes	ideasLAB aims to challenge the way we think about learning and teaching, and find new ways to take technology into the classroom. We stand for what's possible when emerging technology, teaching and learning come together to re-imagine what school could be like in a technology-rich environment. They support teachers and school leaders in bringing new paradigms of virtual pedagogy to the 21st century classroom. They have developed the Tranformation Index, which enables decision makers to understand school leaders' beliefs and attitudes about technology. Through its design labs, ideasLAB is currently experimenting with bold and ambitious projects in: • the new frontiers of online assessment; • object centered sociality; • collective learning envrironments; • content analysis; • games based learning; and • how learners learn online.

Immersive Education Initiative

Website	www.immersiveeducation.org
Location	International, based in Boston, MA
Type	Organization
Description & Key Themes	The ***Immersive Education Initiative*** is a non-profit international collaboration of universities, colleges, research institutes, consortia and companies that are working together to define and develop open standards, best practices, platforms, and communities of support for virtual reality and game-based learning and training systems.

iNACOL

Website	http://www.inacol.org
Location	National
Type	Organization
Description & Key Themes	iNACOL, The International Association for K-12 Online Learning, is a non-profit organization that facilitates collaboration, advocacy, and research to enhance ***quality K-12 online teaching and learning***. Already a trusted leader in the market for online learning – in terms of research, advocacy, professional development, and networking – iNACOL believes: • Online learning is a viable option that allows every learner to achieve a quality education. • Models of reform in public and private education should incorporate online learning as a viable tool for change. • Online learning is a viable path for educating children throughout their primary and secondary education years. • Quality online learning opportunities are led by outstanding course content delivered by highly qualified educators. • Federal, state and local education entities must evaluate and refine existing education public policy in order to promote online teaching and learning options. • Professional development, whether delivered in an online or face-to-face environment, is the basis for ensuring that students and teachers have productive online learning experiences. • Online teachers and students match or surpass all accountability standards. • Federal, state, local and corporate entities must support research and development to provide insight into and promote best practices in the areas of online learning.

Innosight Institute

Website	http://www.innosightinstitute.org/practices/education/
Location	National
Type	Organization
Description & Key Themes	Innosight Institute's Education Practice's mission is to apply Harvard Business School Professor Clayton Christensen's theories of disruptive innovation to develop and promote solutions to the problems of education. The primary focus currently is the U.S. K-12 public education system, although the Practice also works on the problems confronting higher education and education outside the U.S. Christensen, Michael B. Horn, and Curtis W. Johnson's book, ***Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns***, which was published by McGraw-Hill in June of 2008, is the intellectual basis for the Education Practice. Innosight has become a leader in the emerging "blended learning" market and recently collaborated with the Charter School Growth Fund and Public Impact on "The Rise of K-12 Blended Learning" and "The Rise of K-12 Blended Learning: Profiles of Emerging Models," which identify early trends around blended learning and the new school models that are emerging.

Intel

Website	http://www.intel.com/about/corporateresponsibility/education
Location	International
Type	Technology Company
Description & Key Themes	Intel's education program describes a 5-point plan for Education Transformation, including: advocacy for policy reform; curriculum, standards and assessment; sustained professional development; proliferation of information communications technology; and research and evaluation. Within their K12 focus area, Intel has been a champion of thinking tools; project-based approaches; digital literacy; and STEM, among other priorities. Drawing a common theme across their investments, Intel has partnered with Cisco and Microsoft to launch ***Assessment & Teaching of 21st Century Skills*** (www.ATC21S.org), a global research collaboration among more than 250 researchers across 60 institutions worldwide who categorized 21st-century skills internationally into four broad categories: • Ways of thinking. Creativity, critical thinking, problem-solving, decision-making and learning; • Ways of working. Communication and collaboration; • Tools for working. Information and communications technology (ICT) and information literacy; and • Skills for living in the world. Citizenship, life and career, and personal and social responsibility.

KnowledgeWorks

Website	http://futureofed.org
Location	National
Type	Organization/Operating Foundation
Description & Key Themes	KnowledgeWorks, which started out as a traditional grant-making foundation and now describes itself as "an emerging social enterprise," is deeply involved in trying to transform our education system from a world of schooling to a world of learning. Through its portfolio – including New Tech Network and EdWorks – KnowledgeWorks is working on the ground to incubate and develop innovative high school models throughout the United States. Since 2006, KnowledgeWorks has worked with forecasting experts, has studied data on the trends shaping our world, and has joined conversations with others thinking about where education is heading. This resulted in ***2020 Forecast: Creating the Future of Learning***, which provides a framework for understanding the transition that is currently underway. KnowledgeWorks understands how vitally important it is for our country's outdated education system to evolve into a 21st-century world of learning that reaches every student. In that world, learning will be achieved through a diverse array of experiences, teaching will be tailored to individual students, and essential skills such as problem-solving and creativity will be developed across subjects.

John D. & Catherine T. MacArthur Foundation

Website	http://www.macfound.org/site/c.lkLXJ8MQKrH/b.946881/k.B85/Domestic_Grantmaking__Digital_Media__Learning.htm
Location	National
Type	Foundation
Description & Key Themes	Through its support for ***Digital Media and Learning***, the MacArthur Foundation seeks to be a catalyst for understanding and harnessing the potential of digital media to transform learning and civic participation in the 21st century. Rather than focus on schools, MacArthur has turned its attention to learning — specifically how young people are learning outside of school as they participate with digital media. Their work is guided by the following core questions: • Are young people changing as a result of digital media and learning? • How should young people's learning environments change? • How should learning institutions change? • How should institutions like schools, libraries, and museums change? • Based on the answers, what fundamental principles should guide a 21st-century learning system? Ultimately, MacArthur seeks to develop new learning ecosystems, where school is only one node on a student's learning network. Reimagined, "connected learning" would live at the intersection of student interests/affinity, friendship/desire for community, and reputation/desire to achieve.

Microsoft

Website	http://www.pilsr.com and http://www.itlresearch.com
Location	International
Type	Technology Company
Description & Key Themes	In addition to relevant initiatives through the Bill & Melinda Gates Foundation, Microsoft has spearheaded the development of the ***Partners in Learning (PIL)*** network, which helps educators discover and share best practices to foster a culture of innovation and help students reach their full potential. As part of this work, PIL invested in ***Innovative Teaching and Learning (ITL) Research*** to provide individual schools a system that defines innovative teaching and measures it. The ITL Research model identifies three core elements of innovative teaching practices that promote the development of 21st Century skills, including: student-centered pedagogy; extended learning beyond the classroom; and ICT used for teaching and learning.

Nellie Mae Education Foundation

Website	www.nmefdn.org
Location	National, with a focus on New England
Type	Foundation
Description & Key Themes	Nellie Mae is committed to ***student-centered learning approaches***, which create a systemic framework that puts each learner's needs first, and teaches the skills and capacities necessary to succeed in an increasingly complex world. This model, which is sometimes referred to as "personalized learning," is based on the science of cognitive development and a growing body of research about what works in education. Student-centered learning recognizes that different students learn in different ways, often at different times and different rates. Although the details vary, these approaches are frequently characterized by: • Innovative uses of time; • Inclusion of a wider variety of adults - to complement teachers - in all aspects of learning; • Measurement of skills and mastery of content using a combination of demonstration and traditional testing; • Learning takes place both in and out of the classroom; or • A persistent focus on the needs and interests of all learners. In this type of educational experience, high-quality learning becomes the constant and where, when, and how it happens - as well as who the adults are that facilitate it – become the variables.

NewSchools Venture Fund

Website	http://www.newschools.org/entrepreneurs/edtechmap
Location	National
Type	Foundation/Venture Philanthropy
Description & Key Themes	In addition to its work to identify, invest in and scale high-quality education organizations, NewSchools recently collaborated with the Innosight Institute, Education Elements, and the Laura and John Arnold Foundation, to release the K-12 education technology market map. This ***Ed Tech Map*** provides a visual, interactive representation of ventures currently operating in the education technology market, in four main categories: curricula; instructional systems; data systems; and talent management.

Organization of Economic Cooperation & Development (OECD)

Website	www.oecd.org/edu/learningenvironments
Location	International, based in Paris, France
Type	Organization
Description & Key Themes	Because OECD economies have experienced a rapid transformation from industrial to knowledge-based systems in which lifelong learning and innovation are central, individuals who become self-directed learners are able to acquire expert knowledge in various fields, to change careers, and to endow meaningful lives with creativity and variety. OECD's ***Innovative Learning Environments (ILE)*** project seeks to transform today's schools to become environments of teaching and learning that makes individuals lifelong learners and prepare them for the 21st Century. The ILE project focuses on teaching and learning at the micro-level as opposed to educational policies, management or organisational structures. Specifically, the ILP project intends to serve the educational reform agenda by: • Analysing and synthesising current international research findings on learning, teaching and learning environments; • Identifying and analysing examples of innovative learning environments from all over the world; and • Engaging with the community of policy reformers, innovators and learning scientists to discuss how to make better use of these findings to make OECD education systems learning driven.

Stupski Foundation

Website	http://www.stupski.org/ngl-market-analysis/
Location	National
Type	Foundation
Description & Key Themes	Through its collaboration with the Carnegie Corporation of New York, Stupski is committed to supporting the development and scaling of next-generation learning that is: student-centered, personalized, anytime/ anywhere experiences that result in mastery of rigorous academic content, the ability to think critically and solve complex problems, work collaboratively, communicate effectively, and learn how to learn. In 2011, Stupski embarked on a new strategy to bring about change from the ground up, tapping "the most fundamental yet underutilized resource in our public schools: the energy and creativity of the students. We see youth and teachers leading a learning revolution that reinvents American education and transforms the lives of young people. Youth of color and poverty will be in the vanguard, with pioneering teachers and administrators as their essential allies. Tech-friendly learning environments will also help empower youth to grow their skills from the basics to deeper skills like collaboration, problem-solving and critical thinking." Stupski is currently partnering with five school-site ***Learning Labs*** – in KY, ME, NH, NY and OH – at are aligned with this strategy. These sites will engage youth and educators at every level in reengineering the learning experience to put youth at the center and improve their achievement. They will connect with other youth and educators and share their breakthroughs and challenges. Over time, the learning revolution will spread virally to practitioners and policymakers throughout education, helping to expand life options for all youth.

2Revolutions
Do What You Love For Good

2Rev is a national education design lab that designs and launches Future of Learning ***models*** and helps catalyze the ***conditions*** within which they can thrive. We partner with forward-thinking governments, funders, nonprofits and entrepreneurs to innovate across the birth-to-26 Human Capital Continuum. If you are involved – or want to become involved – in building the Future of Learning, we hope you'll reach out. Please visit us at www.2revolutions.net.