Stupski Foundation

Carnegie Corporation of New York

SUMMARY: PARTHENON NEXT-GENERATION LEARNING MARKET ANALYSIS

Context

In order to understand the level of current and likely future intermediary and vendor support to enable and scale next-generation learning, the Carnegie Corporation of New York and the Stupski Foundation commissioned The Parthenon Group to conduct a thorough analysis of the most critical learner- and leader-focused marketplaces. Parthenon aggregated a great deal of data and conducted more than 100 interviews with product and service developers, private and philanthropic investors, state and district leaders, public policy groups, think tanks, and consulting firms. The analysis surfaced:

- A high degree of consensus on the attributes of next-generation learning among thought-leaders, and a call from practitioners for tangible, defensible proof-points of next-generation learning and the supports to make these a reality.
- The existence of many products and services to support the early development of next-generation learning models and a marketplace primed to be supportive if the right incentives are in place, but not nearly the level of capacity to scale emerging models and approaches.
- Urgent need for a concerted effort among funders, policy makers, and education leaders to agree on common definitions, aligned strategies, intentionally complementary investments, and coordinating mechanisms to support both supply and demand for next-generation learning.

Findings

The analysis explored the readiness of both learning (student-focused) and system (leader-focused) supports. Generally, more capacity exists for learner-centered solutions—content, assessment and technology—than for leader-centered solutions—human capital, finance and change management.

Learner Supports

At the learner level, the content, assessment and technology markets are relatively mature, well capitalized and moving toward readiness for next-generation learning. The integration of these three learning markets into a holistic next-generation platform is less developed.

Content

Content/curriculum is an $8.3 billion industry with 5% projected growth. It is a highly concentrated marketplace dominated by Pearson, McGraw-Hill, and Houghton Mifflin/Harcourt (the potential and danger of this concentration has been treated in previous analyses[1]). While each of these three firms (and particularly Pearson) is highly motivated to support the components of next-generation learning, leveraging this marketplace will require greater alignment to common core, more intensive integration of assessment and content, as well as commitment to the creation of modular content units and multi-modal delivery. On the integration of assessment and content, Curriculum Advantage, ALEKS and New Century Education lead the way. Learning.com, ALEKS and Achieve 3000 are exemplars in modular unit creation and Guaranteach and Explore Learning in multi-modal content delivery.

[1]For Example: Larry Berger, David Stevenson. K-12 Entrepreneurship: Slow Entry, Distant Exit. American Enterprise Institute Conference, "The Supply Side of School Reform and the Future of Educational Entrepreneurship". October 25, 2007

Assessment

Assessment is a $1.8 billion industry with 6% projected growth. About $75 million is currently being invested specifically in next-generation learning-focused solutions, which has created a portfolio of many promising innovative assessment components. Pearson dominates the assessment market, and Federal investment in the two national assessment consortia will likely accelerate the development of new assessment approaches and the integration of assessment and content.

Formative assessments are a key driver to foster and scale next-generation learning, particularly through the inclusion of personalized learning algorithms and learning maps that identify the best content, pacing and modalities for students' individual needs (School of One is a good example of current efforts to develop these algorithms). To move this marketplace forward, assessments will need to focus on identifying specific gaps in individual student learning, explicitly inform decisions about content and delivery modalities and become increasingly interactive and engaging. McGraw-Hill's Acuity product is a leading precursor of the integration of these attributes. ALEKS and NWEA are leaders in adaptive assessments. Pearson, ALEKS and McGraw-Hill are exemplars in using assessment to inform content. AIR, eInstruction, Qwizdom and SMART are especially effective at developing interactive and engaging products.

Technology

Education back-office technology is a $1 billion industry comprised of three main sub-markets:

- Student Management Systems: A $390 million industry with 5% projected growth that develops software to record and manage student data, this is a well-established and mature sub-sector.
- Learning Management Systems: A $410 million industry with 12% projected growth that provides software to deliver, track and manage learning, which shows high market penetration and growing functionality.
- Data Analysis: A $100 million industry with 15% projected growth that creates applications to assist in interpreting student data, this is the most emergent market in the technology space.

(Front office technologies relating to assessment, content and professional development, were analyzed separately, within these respective sub-categories.)

The most fruitful opportunities in technology lie in the facilitation of flexible and online learning with multiple access points, and support for more agile scheduling, parent engagement and data reporting. Data aggregation and visualization, early warning indicators and learning algorithms pegged to learning progressions that include higher-order skills are among the most promising applications of technology for next-generation learning. The leading vendors moving in these directions include:

- AAL Solutions
- Blackboard/Angel Learning
- Compass Learning
- eChalk
- Edison Learning Online (eSchoolWare)
- Elluminate
- Global Scholar
- Moodle
- OnCourse / Schoolworksite.com
- Pearson
- SchoolNet
- Skoodat
- Spectrum K12 School Solutions
- Wireless Generation

The analysis uncovered a surprising fact regarding technology: education is the only sector where technology reduces productivity, because it is always additive: when new technologies are introduced, old resources are not taken away. It also revealed a promising insight regarding the potential cost-efficiency of next-generation learning models. Reduction of teaching costs through hybrid learning and sharing system-wide fixed costs could makes hybrid models of next-generation learning cost neutral or cheaper than current models.

Leader Supports

While there is much at the learner level that is moving toward supporting next-generation learning, supports for leader-focused innovation that facilitates the scaling of this learner experience are less developed. The Parthenon analysis focused on eight key aspects of leader supports, within three categories:

Mobilization

Respondents most often commented on the urgent need for a common vision of next-

generation learning that might harness growing momentum. CCSSO and NGA are seen as the key existing players to facilitate this mobilization. Beyond a common understanding of what constitutes next-generation learning, how we facilitate it and through what metrics and mechanisms we can assess it, leaders urged mobilization around two key issues:

Seat time policy. By disrupting use of time through waivers and—more importantly—new policies and structures, the existing system could be more widely disrupted to open up space for next-generation learning. A few states are spearheading efforts (CO, OH, MI, NH, OR, UT). Hewlett, iNacol and RISC are leaders in this space.

Standards. While all agree that the Common Core is a critical baseline for this work, most agree that it does not do enough to articulate metrics around truly next-generation results, particularly relating to higher-order order deeper learning skills. NGA and CCSSO could lead the next phase of standard definition, in the context of next-generation knowledge and skills (and CCSSO has already made next-generation learning an overall organizational focus).

Core district/state system functions

Human capital. In the context of this mobilization, human capital (together with new assessments) is seen to be the most powerful lever for scaling next-generation learning. Respondents feel the most urgent need is to redefine the role of teachers and diversify the roles adults play in learning environments to enable personalization to higher standards and then, in turn, to redefine recruitment, retainment, training, promotion and especially professional development. There are enormous sums to be redirected in this space. Professional development alone is a fragmented and highly ineffective $17 billion industry with projected growth of 4%. (Key players include PD360 and TeachScape in the online space, Achievement Network, Institute for Student Achievement and Datawise in data training and America's Choice, AUSL, and the EASL Institute for general support.) The real value of next-generation learning models, many reported, is that they move us away from costly traditional uses of human capital, through blended learning and more effective/efficient roles for adults. (Key players in the human capital space include The New Teacher Project, Teach for America, The New Teacher Center, Education Pioneers, local teacher residency programs, Ritchie Program for School Leaders [Denver], First Ring Leadership Academy [Cleveland State], the Broad Foundation, graduate schools of education, AUSL, LAUNCH, Teachscape and New Leaders for New Schools.)

Financial planning. As shifts in assessment and human capital begin to redefine the contours of the system, many reported the need to develop more sophisticated, student-centered financial modeling methods and tools. In particular, we heard of the urgent need to move from compliance-centered approaches to financial modeling to more strategic ones, particularly around student weighted-funding. There are some existing innovative approaches to resource allocation strategies, but none at scale. (Student weighted funding leaders include ERS, University of Washington College of Education, and UCLA's Bill Ouchi; Analysis of district budgeting is led by ERS, Parthenon, Center on Reinventing Public Education and the Consortium for Policy Research in Education at the University of Wisconsin Madison. Alvarez & Marsal, Bain, BCG and Parthenon are considered to be leading cost savings experts.)

Innovation Supports

R&D. The analysis confirmed the need for a more useful, relevant and timely approach to research, development, evaluation, dissemination and organizational learning. The $1 billion currently spent on R&D in education is primarily focused content and technology, very little on the broader structures and practices in which learning happens. (Key R&D providers include MDC, Mathematica, Chicago Consortium on School Research, Learning Point Associates, Battelle, AI, Rand, IES, WestEd and McREL.)

Change management. As momentum to enable next-generation learning grows, respondents spoke of the need to develop change management supports for leaders. There is currently significant underinvestment here, which could be mitigated in part through repurposed professional development dollars. Implementation of the small schools strategy over the last decade can serve as a useful precursor to the kind of change management

support system leaders require. (BCG, Bridgespan, Learning Point, McKinsey, Parthenon, EDI, LEK, Deloitte, Accenture and Marakon are considered to be the industry leaders, leaving a great need for more cost effective options like The Center for Reinventing Public Education and perhaps Michael Barber's new Institute for Education Delivery.)

Implications

In this context, the analysis points to the need for a field-wide, coordinated effort to foster the supply-side supports to meet existing and growing demand for next-generation learning at scale. In particular, respondents called for the creation of proof points that can provide grounded, specific examples of what this learning looks like. This was noted as a key role for foundations to play. The power of proof-point creation around a common vision of next-generation learning was highlighted in the context of the $76 billion industry that could be leveraged:

- Federal: $69 billion
- Philanthropy: $6 billion
- Venture philanthropy: $200 million
- Venture capital: $50 million
- Firm/University R&D: $1 billion

Many spoke of the need to create a new organization (perhaps modeled on Achieve or the Data Quality Campaign) to lead this work, an intermediary to support the development of common agenda and the leader-facing supports to create proof points that could align the market and shift public policy. Specifically, respondents commented on the need to support state and district leaders by:

- Supporting new models of learning and the networks that foster them
- Connecting and mobilizing the leaders of these networks and those in states and districts wanting to develop and implement similar models
- Growing R&D capacity to customize existing solutions and develop new ones
- Removing policy barriers, particularly around seat time and labor constraints
- Focusing efforts on human capital, financial planning, professional development and change management.

This analysis, therefore, broadly supports the strategic directions of those who commissioned this analysis and provides a set of recommendations that could align the efforts of others in the field. The efforts of several sector leaders to connect supply and demand around system innovation for next-generation learning will help create the minimum conditions in a few locations that will enable entrepreneurs and align some market resources toward the creation of proof points.

While the supply of supports for next-generation learning at scale is not where it needs to be, pieces of the market are ready to move toward this new agenda. Parthenon's detailed market scan of both the learner and leader supports necessary for this work points to sufficient expertise and capitalization to begin to seed these efforts and to partner with others to foster development of the marketplace necessary to further develop and scale next-generation learning.

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