LANDSCAPE REVIEW: ALIGNED INSTRUCTIONAL SYSTEMS

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Prepared for:

**Bill & Melinda Gates Foundation**

**Landscape Review: Aligned Instructional Systems**

February 12, 2007
An Aligned Instructional System is…

A systematic and coherent combination of Curriculum, Assessment, Professional Development, Information and Student Support Services to support student achievement
Agenda

• What Is the Problem?

• What Is AIS?

• What Is the Potential Market Approach?
What Is the Problem?

AIS Strategy is Designed To Address These Key Questions

**Instructional Challenges**

- How do we create alignment and coherence where is does not exist today?

**Organizational Weaknesses**

- How do we change district behavior that perpetuates low coherence?
- How do we build capacity for teachers and administrators to be successful?

**Market Deficiencies**

- How do we ensure that alignment is self-sustaining from a market perspective?
- How do we support innovation where there is a problem of invention?
What Is the Problem?

Many Districts Lack Coherence Across Instructional Systems

<table>
<thead>
<tr>
<th>Problem Areas</th>
<th>What We Heard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructional Challenges</strong></td>
<td><strong>Organizational Weaknesses</strong></td>
</tr>
<tr>
<td>• Multitude of curriculum materials within one district, leading to inconsistency in delivery of instruction</td>
<td>• “We used to have over 100 different curricula in our high schools” – Chicago</td>
</tr>
<tr>
<td>• Decentralized PD design and implementation</td>
<td>• “Schools used to have a lot of autonomy in professional development, with some central support and direction, but not really any non-negotiables or targeted support. Now we have more professional development, offering more choices and with even more focus than in the past.” – Dallas ISD</td>
</tr>
<tr>
<td>• HS teachers perceive autonomy over curriculum as critical to their job</td>
<td>• “We had a uniform curriculum but it failed at the high school level because teachers and principals rejected it” – San Diego</td>
</tr>
<tr>
<td></td>
<td>• “Our central organization was quite dysfunctional and very siloed” – Portland</td>
</tr>
<tr>
<td></td>
<td>• “The system on its own did not have the capacity to develop this quality of curriculum, nor did it have the capacity to do the professional development for teachers” – Chicago</td>
</tr>
</tbody>
</table>
What Is the Problem?

The Market Approach to AIS Involves Several Key Components

Aligned Instruction Systems Market

Create the Market

Building Demand  Fostering Supply  Leveling the Playing Field

Refine the Model

Facilitate Systemic Changes in Instruction

Assessment  Content & Curriculum  Information  Professional Development  Student Support Services

Monitor Student Results

Vendors

State Administrators  Superintendents  Principals  Teachers
What Is the Problem?

Addressing This Problem Requires Greater Alignment Within and Across Five Verticals

**Key AIS Requirements:**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Content/ Curriculum</th>
<th>Professional Development</th>
<th>Information</th>
<th>Student Support Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Formative and summative assessment with reporting</td>
<td>• Instructional program(s) that are faithfully implemented, aligned to standards and which support differentiated instruction</td>
<td>• Aligned PD with generous coaching ratios</td>
<td>• Instructional information in the hands of teachers, district and state administrators to evaluate success</td>
<td>• Academic support systems that share student level instructional reporting data with core instruction</td>
</tr>
</tbody>
</table>

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**Sample Providers:**

- Houghton (Edusoft)
- Carnegie Learning
- Pearson Achievement Solutions
- SchoolNet
- Kaplan (Score!)
What Is the Problem?

**Assessment and Content & Curriculum Markets Are Healthiest and Most Likely to Drive AIS Market Response**

<table>
<thead>
<tr>
<th></th>
<th>Assessment</th>
<th>Content &amp; Curriculum</th>
<th>Information</th>
<th>Professional Development</th>
<th>Student Support Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Market Size</td>
<td>$1.2B</td>
<td>$7.4B</td>
<td>$785MM</td>
<td>$7.0B</td>
<td>$1B</td>
</tr>
<tr>
<td>K-12 Profit Pool</td>
<td>$160MM</td>
<td>$1.6B</td>
<td>$80MM</td>
<td>$70MM</td>
<td>$20MM</td>
</tr>
<tr>
<td>K-12 Growth (Projected)</td>
<td>6%</td>
<td>5-6%</td>
<td>7%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Concentration</td>
<td>69%</td>
<td>63%</td>
<td>38%</td>
<td>&lt;10%</td>
<td>37%</td>
</tr>
<tr>
<td>Percent of Market that is 9-12</td>
<td>24%</td>
<td>32%</td>
<td>28%</td>
<td>23%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Though no single solution exists, players in these markets generally enjoy stable markets and profit streams.

Maturing markets

Early stage / Undeveloped markets
Agenda

- What Is the Problem?

- What Is AIS?

- What Is the Market Approach?
What Is AIS?

Aligned Instructional Systems (AIS) will drive improved outcomes through a systematic combination of Content / Curriculum, Assessment, Professional Development and Student Support Services.
What Is AIS?

AIS Is Not...

**A Uniform Curriculum**
- Every district demonstration project will make use of varying amount of existing instructional infrastructure
- Managed choice will promote a menu of options based on school performance
- State-level intervention strategy implementation of AIS will be tailored to capacity/existing assets of districts

**A Uniform School Model**
- Alternative models are an important source of innovation within the context of school districts
- Alternative models will fall under the same assessment and information requirements as mainstream schools

**A Single Vendor Solution**
- In an AIS environment it is critical that vendors are inter-operable to form a matrix/menu of AIS components
- The task of integrating all components may fall to the buyer (district/state) or an independent integrator

**A “Top-down” Initiative Only**
- Strong instructional leadership is absolutely critical, but there are many approaches to gaining teacher buy-in
What Is AIS?

AIS Is Designed to Create A Sustainable Market

**Structural Design Elements**

- **9-12 math and reading** as initial focus, all subjects eventually
- Schools **opt-in** to the program
- **Schools contribute** meaningful dollars to help cover the program cost (one fifth to half of program costs)
- The AIS program gets **control over** previously fragmented **PD** time and dollars
- The initiative **ramps up over time**, gradually covering some or all of the district’s high school students

**AIS Core Elements**

- **Deep alignment** between the three AIS pillars: content & curriculum, assessment and PD
  - Links to student supports and information are important but not initial prerequisites
- **Generous coaching ratios**
- **PD that is relevant and timely** for teachers’ immediate classroom needs
- Both **formative and summative** assessment with timely reporting mechanisms
- Approach to **curriculum development** that is consistent with the strategy and philosophy of district leaders

By carefully shaping the “ask,” Districts will explicitly impact vendor solutions that come to market
What Is AIS?

AIS Does Not Yet Exist In Mainstream Education Due to Supply and Demand-Side Issues

A number of AIS-ready components exist, but...

- "We have non-negotiable curricula and standards in the district. Our goal is to help teachers develop common assessments and use the data to guide instructional decision-making in the classroom.” - Portland

...challenging obstacles exist in established markets...

- "State behavior is siloed - everything is purchased separately” - Pearson Education

...and PD and student support services are not AIS-ready

- "The economics of professional development mean that publishers have to include it ‘gratis’ with basal sales – it’s not a revenue generating business – and the quality reflects that” - McGraw-Hill

There are few demonstrations of AIS but interest is increasing...

- "There are some common areas right now that all districts are grappling with. We need a critical mass of districts to buy into using some kind of tool so that everyone is not out there reinventing the wheel every day.” - Portland

...however, challenging obstacles exist for driving alignment

- "Teachers are very badly prepared to do this. Ed schools simply do not train teachers to teach this way. And the psychology of High School teachers makes them almost hostile to the very notion” - Chicago Charter School Foundation
What Is AIS?

District-Level Demonstration Projects Phase In Alignment

AIS Program Development
- Strategy Development
- Inventory of Current Resources
- Stakeholder Outreach
- Structural Change Management Plan

AIS Program Implementation
- Budgeting & Contract Negotiation
- Vendor Selection
- Leadership Training
- Curriculum Design & Content Customization
- Assessment Development
- Reporting and Tech Platform Integration
- PD Program Development

Monitoring & Execution
- Mentor Program Launch

In-house District Leadership Team
Independent Integrator
External Vendors
What Is AIS?

Chicago Is An Early Example of a District Demonstration Project

**Program Development**
- ~18 months planning time
  - New internal staff
  - Partnership with BCG
- Each program includes customized content and curriculum, PD programs, and coaching support (1:15 coaching ratio)

**Program Implementation**
- RFP to select 7 partners to provide integration solutions for math, English, and science
- ~30 schools applied to participate
  - Outreach efforts to principals and teachers
- 14 schools selected for first cohort
- Launched at grade 9, adding an additional grade each year

**Monitoring & Execution**
- New cohort of high schools will be added in 2008-2009
- Vendors worked with AIR to design specialized assessment for each program
- Schools contribute $250 per participating student
Agenda

- What Is the Problem?
- What Is AIS?
- What Is The Market Approach?
What Is The Market Approach?

Three Primary Avenues for Investing in AIS Exist

Goal: Create a Stable and Strong Market for Aligned Instruction Systems

- **Building Demand**
  - Create demand for AIS at district and state levels

- **Fostering Supply**
  - Jump-start supply of integrated offerings, invest in gap areas

- **Leveling the Playing Field**
  - Aggregate demand, reduce information and investment barriers

Investment Avenues:

- **District Demonstration Projects**
- **Vendor Outreach**
- **State Initiatives**
# What Is The Market Approach?

## Why Do We Need to Build Demand?

<table>
<thead>
<tr>
<th>Quality, scalable AIS solutions do not exist today</th>
<th>Most districts do not currently have the internal capacity to build home-grown AIS solutions</th>
<th>Vendor solutions offer better opportunity for systemic change</th>
<th>Vendors will respond to demand when districts clearly define the “ask”</th>
<th>A self-sufficient market is the best long term solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• There is a significant gap in today’s market</td>
<td>• Home-grown solutions require significant internal capacity and long implementation timelines</td>
<td>• Vendor-driven solutions are more likely to lead to scalable and consistent AIS solutions</td>
<td>• The market is not fundamentally broken</td>
<td>• Private dollars can jump start the market, but ultimately a self-sustaining market is required</td>
</tr>
<tr>
<td>• Existing products are not aligned across verticals and home-grown solutions are not scalable</td>
<td>• For most districts, leveraging vendor capacity will be an important bridge until they can bolster the internal team</td>
<td>• Vendors are positioned to share AIS learnings across districts</td>
<td>• If a significant number of districts demand AIS solutions, vendors will respond</td>
<td>• AIS projects will combine new district dollars with repurposed spend</td>
</tr>
<tr>
<td></td>
<td>• Market solutions may lower the total system cost, as some development costs are shared across districts</td>
<td></td>
<td>• Districts must define and communicate the AIS “ask” in the marketplace in order to lead vendors towards the desired solutions</td>
<td></td>
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Opportunity exists to help accelerate the demand so that the AIS market more quickly develops with a range of vendors who can partner with districts
## What Is The Market Approach?

### Why Do We Need to Foster Supply?

<table>
<thead>
<tr>
<th>Content &amp; Curriculum and Assessment</th>
<th>Information is a maturing market and some AIS solutions exist, but successful implementations are limited to large districts</th>
<th>PD is critical, but structural market factors and current lack of demand are hindering sustainable and scaleable solutions</th>
<th>Student Support Services are not currently adequate</th>
</tr>
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<tbody>
<tr>
<td>Markets are stable with healthy investment and R&amp;D</td>
<td>Normal adoption cycle and decreasing prices will eventually allow penetration of robust IMS and LMS products to smaller districts</td>
<td>Aggregation of district professional development spending is required to effectively present a market for AIS</td>
<td>Improvements to the formulation of Title I funding for Supplemental Education Services are required</td>
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<td>Many of the building blocks of AIS exist and firms have demonstrated an ability to respond to market changes</td>
<td>Aggregation of spending and demand may be required to speed adoption</td>
<td>Creating a stable flow of funds for curricula linked to professional development and coaching can effectively create a market for outsourced PD as part of an AIS</td>
<td>Student support can be addressed through advocacy</td>
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<td>Firms will invest in district level solutions</td>
<td>While formative assessments are readily available, training and reporting are inconsistent</td>
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<td>Traditional players innovate by acquiring small innovators and incorporating their products</td>
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What Is The Market Approach?

Range of Options Exist to Jump-Start the Supply of Aligned Systems from Vendors

Minimum Level

- Vendor outreach and communication initiatives

Moderate Level

- District RFP management to provide supplier opportunities
- AIS product development grants

Maximum Level

- Equity investment in vendor to drive development of AIS products and services
What Is The Market Approach?

Why Level The Playing Field?

<table>
<thead>
<tr>
<th>Structural Challenges for Districts and Suppliers</th>
<th>Structural Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribution</strong></td>
<td></td>
</tr>
<tr>
<td>• Fragmented budgeting and decision-making; many decisions at the school level</td>
<td>• Force centralization in failing schools, reducing cost for smaller players to sell to individual schools</td>
</tr>
<tr>
<td>• Requires large sales forces</td>
<td></td>
</tr>
<tr>
<td><strong>Marketing</strong></td>
<td></td>
</tr>
<tr>
<td>• Lower brand recognition for smaller players</td>
<td>• Specifically identify or suggest smaller players who might not otherwise be chosen</td>
</tr>
<tr>
<td><strong>Customization</strong></td>
<td></td>
</tr>
<tr>
<td>• Players must customize content at the state or district level in order to compete</td>
<td>• Create greater consistency of content and curricula across the state though EOC exams</td>
</tr>
<tr>
<td>• Make it easier for smaller players to compete within specific state</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td></td>
</tr>
<tr>
<td>• Lack of consistent data and reporting capabilities on what works and what doesn’t</td>
<td>• Tools for automating and standardizing information and fidelity of implementation</td>
</tr>
</tbody>
</table>

State and District level AIS initiatives will drive scale structural changes.
What Is The Market Approach?

Three State-Level AIS Entry Points Exist to Level the Playing Field

### Intervention Strategies
- States implement AIS strategies in state takeover schools
- Projects in target schools would look similar to a district demonstration project

### Information Systems
- States develop and roll-out robust information systems, which serve as a platform for AIS

### EOC Assessments
- State implements mandatory EOC exams
- Drives greater specificity in standards and greater accountability to those standards

### Description

#### Examples
- **Texas** - High School Redesign and Restructuring Grants
- **Florida** - Sunshine Connections, NYLearns
- **NY** - Regents Exams

#### Overall Attractiveness
- **Texas** - High
- **Florida** - Medium
- **NY** - Medium

#### Intervention Strategies

- Smaller scale, but tighter control and greater likelihood of success

#### Information Systems

- Large scale, but relatively blunt tools for achieving AIS
### What Is The Market Approach?

#### Cost Drivers For Projects

<table>
<thead>
<tr>
<th>Content &amp; Curriculum</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Less customized, more off-the-shelf solution</td>
<td></td>
<td>• Highly customized content and materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Traditional materials</td>
<td></td>
<td>• Traditional materials plus computer labs, graphing calculators, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PD</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low coaching ratio</td>
<td></td>
<td>• High coaching ratio</td>
</tr>
<tr>
<td>• Off-the-shelf PD modules</td>
<td></td>
<td>• Customized PD modules</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rudimentary student information system</td>
<td></td>
<td>• New technology that enables timely reporting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Customized summative assessment</td>
<td></td>
<td>• Extensive formative assessments in addition to summative</td>
</tr>
<tr>
<td>• Limited formative assessment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration</th>
<th>Low Cost</th>
<th>High Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Faster planning process</td>
<td></td>
<td>• Longer lead time for planning and buy-in</td>
</tr>
<tr>
<td>• Less expensive external partners</td>
<td></td>
<td>• More expensive external partners</td>
</tr>
</tbody>
</table>

**Demonstration program will require a significant financial commitment by both the district and participating schools – not all funding will be incremental**
What Is The Market Approach?

Project Costs Will Vary Based on Program Design and District Size

Variable Cost Per Student with Two Subject Areas

<table>
<thead>
<tr>
<th></th>
<th>Start-Up</th>
<th>On-Going</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Cost</td>
<td>$343</td>
<td>$505</td>
</tr>
<tr>
<td>Fixed Program</td>
<td>$14.6M</td>
<td>$6.5M</td>
</tr>
<tr>
<td>Approximate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per District</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20K District</td>
<td>$11.3M</td>
<td>$1.8M</td>
</tr>
<tr>
<td>40K District</td>
<td>$12.2M</td>
<td>$3.0M</td>
</tr>
<tr>
<td>80K District</td>
<td>$13.9M</td>
<td>$5.2M</td>
</tr>
</tbody>
</table>

| Foundation | 75% | 0% |
| Districts* | 25% | 100% |

*District contribution may include school contributions per pupil and/or external local funding
What Is The Market Approach?

The Market for AIS Will be Stable and Attract Vendors if the Expected Returns Can Meet Investment Hurdles

- **Function Of:**
  - Firms’ Cost of Capital, Current Assets and Investment Alternatives
  - Investment Required and Expected Size and Share of Profit Pool in Target Segment

- **Varies By:**
  - Small Incumbents
  - Small Entrants
  - Large Entrants
  - Professional Development

Creating required economic stimulus will attract small and large players across education markets, direct investments in small suppliers will lower their barriers to entry.
What Is The Market Approach?

Per District Cost Implies 22-34 Projects to Achieve Required Stimulus Over 5 Years

<table>
<thead>
<tr>
<th>Projected Number of Projects Required to Meet Tipping Point in PD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22</td>
<td>34</td>
</tr>
</tbody>
</table>

Note: Analysis assumes projects are high school only in math and reading

<table>
<thead>
<tr>
<th>Portion of Cumulative Start-Up Investment @ 75%</th>
<th>$265MM</th>
<th>$420MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Portion of Cumulative Start-Up Investment @ 25%</td>
<td>$90MM</td>
<td>$140MM</td>
</tr>
<tr>
<td>Annual Ongoing Cost (District)</td>
<td>$210MM</td>
<td>$330MM</td>
</tr>
<tr>
<td>Annual Ongoing Market Stimulus</td>
<td>$140MM</td>
<td>$220MM</td>
</tr>
</tbody>
</table>

Start at this level in conjunction with direct investments with small suppliers

Ramp-up to this level for greatest potential for sustainable market creation as resources permit
## What Is the Market Approach?

### Given the Resource Gap, A Phased-in Approach is Necessary

<table>
<thead>
<tr>
<th>Building Demand</th>
<th>Fostering Supply</th>
<th>Leveling the Playing Field</th>
<th>Knowledge Sharing/Strategy Refinement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I:</strong></td>
<td><strong>Phase I:</strong></td>
<td><strong>Phase I:</strong></td>
<td><strong>Phase I:</strong></td>
</tr>
<tr>
<td>Develop and implement projects at the minimum level (4-5 per year run rate)</td>
<td>Outreach / PR to supplier community, signaling commitment and defining AIS needs through RFPs</td>
<td>Focus on district intervention strategy work at the state-level in 2 states only</td>
<td></td>
</tr>
<tr>
<td><strong>Phase II:</strong></td>
<td><strong>Phase II:</strong></td>
<td><strong>Phase III:</strong></td>
<td><strong>Phase III:</strong></td>
</tr>
</tbody>
</table>
| • Based on progress of market development, ramp up projects to maximum level (7-8 per year run rate) | Develop and implement direct investment in supplier strategy in areas of greatest need:  
  - PD  
  - Integrators | Based on progress of market development, add state projects in information and EOC  
  • Add additional state(s) |  |