Future Focused
School Leadership

Bill Daggett
Founder and Chairman
October 11, 2017
NCLB and The Standards Movement
Rate of Change
Systemwide
Rigorous Learning for ALL Students

Organizational Leadership
Instructional Leadership
Instructional Effectiveness
Teaching
The Winds of Change

Accelerating Impact of Technology
1st Industrial Revolution
1st Industrial Revolution
2nd Industrial Revolution
Industrial Revolution transformed both the expectations and model of public education.
i-phone
Web 1.0 - Informational Web
Web 1.0 - Informational Web
Web 2.0 – Relational Web
Web 1.0 – Informational Web
Web 2.0 – Relational Web
Web 3.0 – Anticipatory Web
“Harvard Yanks Acceptance Letters Over Offensive Facebook Posts”

-Fortune

Source: Fortune, June 5, 2017
“Colleges Eyeing Social Media—Big Time”

-South Coast Today

Source: Fortune, June 5, 2017
“They Loved Your G.P.A. Then They Saw Your Tweets.”

-The New York Times

Source: Fortune, June 5, 2017
“One in Ten Young People Have Been Rejected For Jobs Because of Their Social Media History”

-Business Insider

Source: Fortune, June 5, 2017
## 5 Largest Companies

<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Revenue (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Exxon Mobil</td>
<td>$540B</td>
</tr>
<tr>
<td></td>
<td>General Electric</td>
<td>$463B</td>
</tr>
<tr>
<td></td>
<td>Microsoft</td>
<td>$355B</td>
</tr>
<tr>
<td></td>
<td>Citigroup</td>
<td>$331B</td>
</tr>
<tr>
<td></td>
<td>Bank of America</td>
<td>$290B</td>
</tr>
<tr>
<td>2017</td>
<td>Apple</td>
<td>$794B</td>
</tr>
<tr>
<td></td>
<td>Google</td>
<td>$593B</td>
</tr>
<tr>
<td></td>
<td>Microsoft</td>
<td>$506B</td>
</tr>
<tr>
<td></td>
<td>Amazon</td>
<td>$429B</td>
</tr>
<tr>
<td></td>
<td>Facebook</td>
<td>$414B</td>
</tr>
</tbody>
</table>

Source: S & P Dow Jones Indices
1st Industrial Revolution
2nd Industrial Revolution
3rd Industrial Revolution
4th Industrial Revolution
4th Industrial Revolution

3rd Revolution
4th Industrial Revolution

PHYSICAL
Nanotech
1/100th
10 times
Jell-O

3rd Revolution
Driverless Cars
Truck Drivers
4th Industrial Revolution

3rd Revolution
4th Industrial Revolution

PHYSICAL
Nanotech
- 1/100th
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3rd Revolution
4th Industrial Revolution

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3rd Revolution

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3rd Revolution

BIOLOGICAL
Biotech
4th Industrial Revolution

PHYSICAL
Nanotech
- 1/100th
- 10 times
- Jell-O

3rd Revolution

BIOLOGICAL
Biotech

DIGITAL
Health Care
If you can write an algorithm for a task, the job is gone.
Paid for Unique Knowledge

- Lawyers
- Accountants
- Stock Brokers
- Doctors

In the immediate future...
Job Shares by Skill Group
1980 - 2040

Source: NY Fed Calculations, U.S. Census Bureau
### 5 Largest Companies

**2007**

1. Exxon Mobil
2. General Electric
3. Microsoft
4. Citigroup
5. Bank of America

**2017**

1. Apple
2. Google
3. Microsoft
4. Amazon
5. Facebook

**2027**

- Bio/Nano
- Info
- Technology

Source: S & P Dow Jones Indices
The rate of change caused by technology is faster than larger organizations can adapt to.
Entrepreneurs are more effective in this changing environment than large/bureaucratic organizations.
Work to Worker
Six billion of the 7 billion people on Earth have a mobile phone. More than those who have access to toilets.

Source: * Industries of the Future
Developing nations do not need to be freed from the structures of the past.
The Winds of Change

Accelerating Impact of Technology

Higher Education Challenge
College Dropout Rate 2016
First to Second Year

- Four-Year Colleges: 34.8%
- Two-Year Colleges: 44.5%

Average Graduation Rate 2016
1983 - 2016

36.6%
Four-Year Colleges in 5 years

29.1%
Two-Year Colleges in 3 years

Your Major Matters
A LOT
## 2-Year College Graduates

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>STARTING</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Info Systems</td>
<td>$45,100</td>
<td>$72,100</td>
</tr>
<tr>
<td>Electrical and Chemical Engineers</td>
<td>$45,100</td>
<td>$69,800</td>
</tr>
<tr>
<td>Occ. Health and Safety</td>
<td>$50,300</td>
<td>$68,200</td>
</tr>
<tr>
<td>Diagnostic Medical Specialist</td>
<td>$50,200</td>
<td>$66,800</td>
</tr>
<tr>
<td>Computer Programmer</td>
<td>$42,300</td>
<td>$65,300</td>
</tr>
</tbody>
</table>
## 4-Year College Graduates

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>STARTING</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development</td>
<td>$35,900</td>
<td>$48,000</td>
</tr>
<tr>
<td>Athletic Trainer</td>
<td>$34,800</td>
<td>$46,900</td>
</tr>
<tr>
<td>Social Worker</td>
<td>$33,000</td>
<td>$46,600</td>
</tr>
<tr>
<td>Recreation and Leisure</td>
<td>$32,200</td>
<td>$45,300</td>
</tr>
<tr>
<td>Child and Family Studies</td>
<td>$30,300</td>
<td>$37,200</td>
</tr>
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## 4-Year College Graduates

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<tr>
<th>OCCUPATION</th>
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<th>AVERAGE</th>
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<tbody>
<tr>
<td>Petroleum Engineer</td>
<td>$103,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>Actuarial Math</td>
<td>$58,700</td>
<td>$120,000</td>
</tr>
<tr>
<td>Nuclear Engineer</td>
<td>$67,600</td>
<td>$117,000</td>
</tr>
<tr>
<td>Chemical Engineer</td>
<td>$68,200</td>
<td>$117,000</td>
</tr>
<tr>
<td>Aerospace Engineer</td>
<td>$62,800</td>
<td>$109,000</td>
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The Winds of Change

Accelerating Impact of Technology

Higher Education Challenge

College and Career Ready
1. Complex Problem Solving

Top 10 Skills

Source: Future of Jobs Report, World Economic Forum
1. Complex Problem Solving

2. Critical Thinking
1. Complex Problem Solving
2. Critical Thinking
3. Creativity

Top 10 Skills

Source: Future of Jobs Report, World Economic Forum
Top 10 Skills

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management

Source: Future of Jobs Report, World Economic Forum
1. Complex Problem Solving
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3. Creativity
4. People Management
5. Coordinating with Others

Top 10 Skills

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Top 10 Skills

1. Complex Problem Solving
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Top 10 Skills

Source: Future of Jobs Report, World Economic Forum
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7. Active Listening
8. Service Orientation
9. Negotiation

Top 10 Skills

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1. Complex Problem Solving
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4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Active Listening
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

Source: Future of Jobs Report, World Economic Forum
WHAT
Application Model

1. Knowledge in one discipline
2. Application within discipline
3. Application across disciplines
4. Application to real-world predictable situations
5. Application to real-world unpredictable situations
Knowledge Taxonomy

- Creating 6
- Evaluating 5
- Analyzing 4
- Applying 3
- Understanding 2
- Remembering 1
College Ready (College Prep)
Job Ready (CTE)
Career Ready

Rigor

Relevance

International Center for Leadership in Education
Key Skills

Data Analytics
System Skills
Complex Problem Solving
Personal Skills
Levels

Rigor

Relevance

International Center for Leadership in Education | A division of Houghton Mifflin Harcourt
A and C were Needed Pre-Internet
B and D are required in the Internet Age.
Increasingly just D is required in the Internet Age
Regulated, Certified, Tenured, and Contracted
HOW
Seven Interrelated Fundamental Shifts
Seven Interrelated Fundamental Shifts

From A/C to B/D
ACTIONABLE DATA
- Instructional Practice Review

Rigor

6 5 4 3 2 1

Relevance

1 2 3 4 5

C A B D
Seven Interrelated Fundamental Shifts

From A/C to B/D

Reading, Writing, and Mathematics
College and Career Ready Required Mathematics

Existing Curriculum
College and Career Ready Required Mathematics

Existing Curriculum

• Algebra I
College and Career Ready Required Mathematics

Existing Curriculum

• Algebra I
• Geometry
College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
College and Career Ready
Required Mathematics

Existing Curriculum

• Algebra I
• Geometry
• Algebra II
• Pre-Calculus
• Calculus
College and Career Ready Required Mathematics

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5% of the U.S. Workforce
### College and Career Ready
#### Required Mathematics

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5% of the U.S. Workforce
## College and Career Ready Required Mathematics

### Existing Curriculum
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

### Workplace Ready
- Proportional Relationships
  - Percentages
  - Graphical Representations
  - Functions

5% of the U.S. Workforce
## College and Career Ready

### Required Mathematics

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<td>• Pre-Calculus</td>
<td>• Functions</td>
</tr>
<tr>
<td>• Calculus</td>
<td>• Expressions</td>
</tr>
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5% of the U.S. Workforce
College and Career Ready Required Mathematics

Existing Curriculum
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

Workplace Ready
- Proportional Relationships
  - Percentages
  - Graphical Representations
  - Functions
  - Expressions
  - Equations

5% of the U.S. Workforce
### Existing Curriculum
- Algebra I
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- Calculus

### Workplace Ready
- Proportional Relationships
  - Percentages
  - Graphical Representations
  - Functions
  - Expressions
  - Equations

5% of the U.S. Workforce
Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
4. Innovation and Creativity
Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
4. Innovation and Creativity
5. Technology Tools
Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
4. Innovation and Creativity
5. Technology Tools
6. Social Media
Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
4. Innovation and Creativity
5. Technology Tools
6. Social Media
7. Non-cognitive

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Fundamental Shift in Instruction
Fundamental Shift in Instruction

Open Educational Resources
Open Educational Resources

Teachers Pay Teachers
Scope and Sequence
Fundamental Shift in Instruction

Open Educational Resources

Text to Digital
Fundamental Shift in Instruction

- Open Educational Resources
- Text to Digital
- Virtual to Augmented Reality
Fundamental Shift in Instruction

- Open Educational Resources
- Text to Digital
- Virtual to Augmented Reality
- Gamification
Gamification

Engaging
Gamification

Engaging

Personalized
Gamification

Engaging

Personalized

Built on Growth Model
Preparing Students for Their Future

Bill Daggett
Founder and Chairman
November 15, 2017
Gamification

Engaging

Personalized

Built on Growth Model

Tied to Standards
Fundamental Shift in Instruction

- Open Educational Resources
- Text to Digital
- Virtual to Augmented Reality
- Gamification
26th ANNUAL MODEL SCHOOLS CONFERENCE

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