From “International Crisis” to “Opportunity to Learn”

• Move beyond the “crisis rhetoric”
• Failed policies in other countries may become failed policies in the US (e.g., teacher evaluation)
• Importance of “rigor” & high expectations across all segments of society
Georgia’s NAEP
Fourth Grade Math and Reading

Reading

Math
"Testing Drives Instruction"

For a fair selection everybody has to take the same exam: please climb that tree.

Our Education System
Georgia’s students will take fewer tests starting with the 2015-2016 school year.

In an attempt to decrease the financial and human resources burden on all school districts, the Georgia Department of Education (GaDOE) will cut the number of Student Learning Objectives (SLOs) schools must administer.
What’s going right?
Where do we go from here?

• High standards
• Challenging goals
• Technology integration
• Improved school climates
• Family and community engagement
Testing and Accountability

TEACHING AND LEARNING
Equity of Opportunity

“We are true to our creed when a little girl born into the bleakest poverty knows that she has the same chance to succeed as anybody else.”
The logic of the problem is not the logic of the solution
Why is this SO Important NOW?
Exponential Growth of Knowledge
The “Long Tail” of Education in the Digital Age

• Times of change can drive disruptions and improvements

• Innovations of the past will not be the innovations of the future

• Convergence around “industry standards” will be supplemented with niche interests

• “Sail with the wind”
The Long Tail of Educational change
Paradigm Shift: Schools in the Digital Age

Shifting Instruction
- Moving from didactic, fragmented instruction to interactive, integrated learning
- Adapting to new literacies (including engineering, design, and computer science)
- Participatory pedagogies: Empowering learners to inquire, express, and explain
- Using technology to connect with peers and communities
- Changing assessments to profile learners, classrooms, and schools

Shifting “Schools”
- Aggregating the “best” online resources, assessments, strategies
- Assessing systems in more formative, embedded ways (think “analytics”)
- Networking collaborative teams to look at data and problem-solve together

Shifting Communities
- Networking data systems to create comprehensive views of populations
- Connecting communities around shared opportunities to improve learning outcomes
Shifting Instruction: Digital Content

- Digital content = 30% market for K-12 learning resources at end 2014
- Expected growth: 57% by end of 2016
- Print AND Digital will continue

(Sources: Simba Information, Ed Week)
Shifting Instruction: Participatory Pedagogies
The Impact of Multimodal Learning in Comparison to Traditional, Unimodal Learning

Findings Reported Separately for Basic Skills and Higher Order Skills, and by the Inclusion or Absence of Interactivity

**Interactive Multimodal Learning**
- Includes simulations, modeling, and real world experiences; typically includes collaboration with peers, but could be an individual interacting with resource

**Basic Skills**
- I. Percentile increase for average student
- II. Percentile increase for average student

**Higher Order Skills**
- III. +32 Percentile increase for average student

**Non-Interactive Multimodal Learning**
- Includes using text with illustrations, watching and listening to animations, listening to lecture with graphics on devices such as whiteboards, etc.
- Typically involves individualized learning, or whole-group work that includes listening, observing, or reading, but little to no interaction

**I.** Percentile increase for average student
**II.** Percentile increase for average student
**IV.** Percentile increase for average student

Source: Cisco Systems, 2008
Shifting Schools: “Centrifugal Schooling”

- Learner-centered
- Multiple “suppliers”
- Digital delivery
- Digital “participation”
  - Producers
  - Writers
  - Informed consumers
Shifting Communities

- The “intentional community”
- Quality education is a civil right
- Intellectual capital as the life-blood of a democratic Constitutional Republic
- Education is supported by a network of overlapping institutions
Shifting Communities
How Will We Know When We’ve Improved?

- Complex Systems thinking
- Leverage points
- Multiple sources for evaluation
- Division of labor, tools, barriers, optimum design
- Socially sustainable
Key Concepts of Systems

• **Co-production** – different initiatives can converge around shared goals (convergence);
  ✓ Identify stakeholders

• **Emergence** – out of the initiatives, unique conditions will emerge. Those changes are unpredictable but emergent patterns can be identified. The earlier the patterns can be identified, the more likely they can be managed by redesigning the systems concerned.
  ✓ stakeholders need to be aligned
  ✓ Stakeholder co-production

• **Impact** – Feedback/feed-forward; co-factors impact each other and because of that, the whole system becomes dynamic (change put into motion); change is on-going.
  ✓ Iterate every change intervention;
  ✓ different perspectives necessary
  ✓ Seek alignment of perspectives
  ✓ Learning organization is self-reflective and self-refers what impacts are happening and how to respond

• **Hierarchy/levels** – units/sub-units, work teams, etc.
  ✓ Every intervention needs to be run across three levels (outer level, inner level, self)
  ✓ Paradox – because each level is a whole in its own right, it is unique and different from other levels (paradox between integration and differentiation/both centralize and decentralize)
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Let me know how you liked the talk...fill out a survey here.
• EXTRAS AFTER THIS SLIDE!
Ant in the Well

An ant is at the bottom of a 12-foot deep well and is trying to get to the top. During the day he climbs 4 feet up, but at night he slides back 2 feet. How long does it take for him to get out of the well?

Explain your solution with words and a drawing.
John Green’s Crash Course
Social Relevance
Personal Interest
Equitable Opportunity
Academic Quality
Community Engagement