Online learning vs class size reduction: which is really “personalized” and which helps kids learn?

Network for Public Education 3rd Annual Conference

Leonie Haimson, Class Size Matters

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What is personalized learning?

1) “systems and approaches that accelerate and deepen student learning by tailoring instruction to each student’s individual needs, skills, and interests”

(2) “a variety of rich learning experiences that collectively prepare students for success in the college and career of their choice”

(3) “teachers’ integral role in student learning: designing and managing the learning environment, leading instruction, and providing students with expert guidance and support to help them take increasing ownership of their learning.”

Really? No mention here of online learning or ed tech.

Source: *RAND Corporation, Continued Progress: Promising Evidence on Personalized Learning, 2013* http://k12education.gatesfoundation.org/wp-content/uploads/2015/11/Gates-ContinuedProgress-Nov13.pdf

But on its website ,Gates Foundation makes it clear what they mean by personalized learning with this photo….

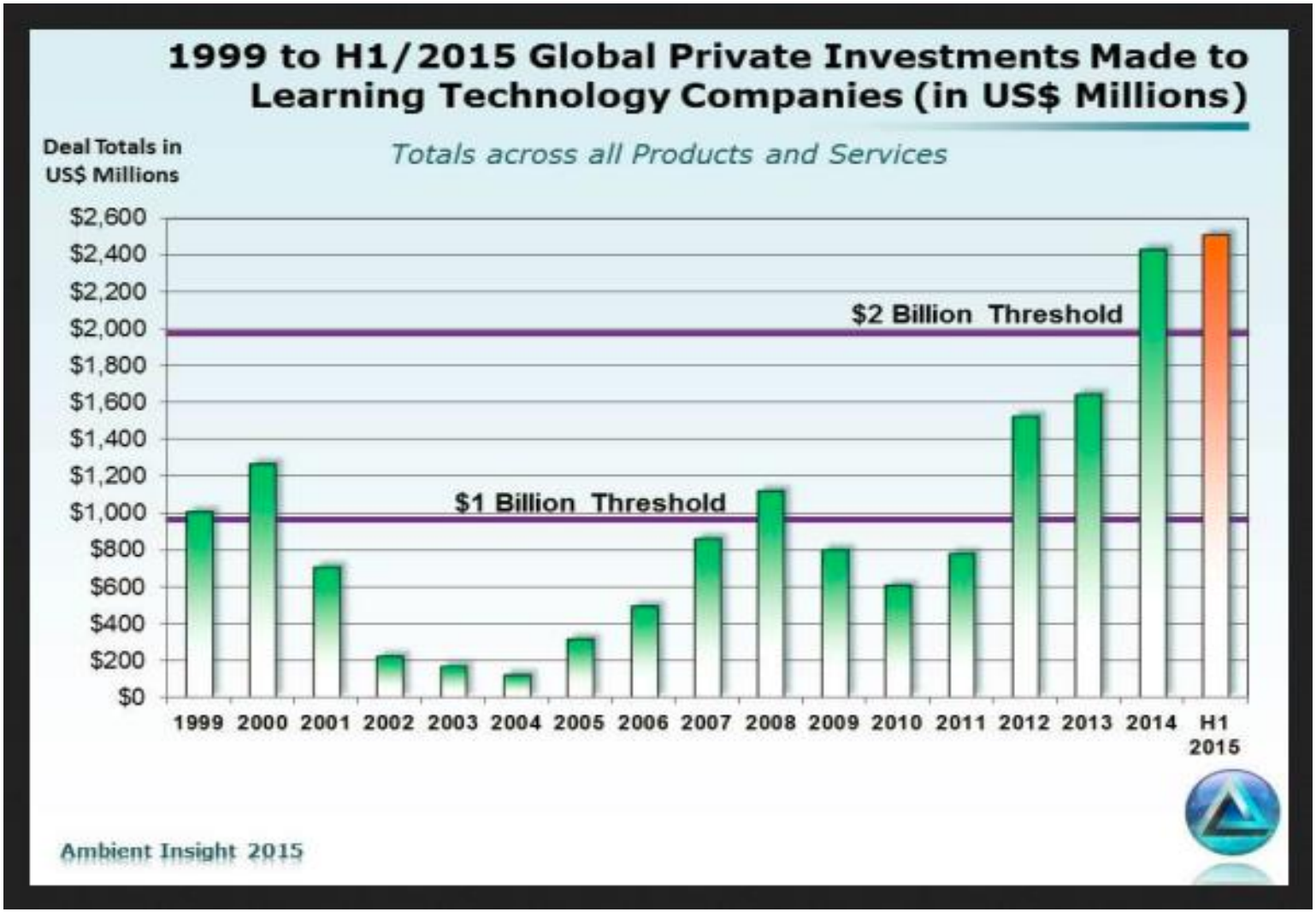
And they write: ““Learning creates deeper teacher-student bonds because the teacher has to know the student to customize a program and offer advice. **Technology can help personalize learning and bring students and teachers closer together**—particularly when teachers get a chance to help design the technology to better meet learners’ needs. “

Really? The teachers have to “design technology” to deliver personalized learning?

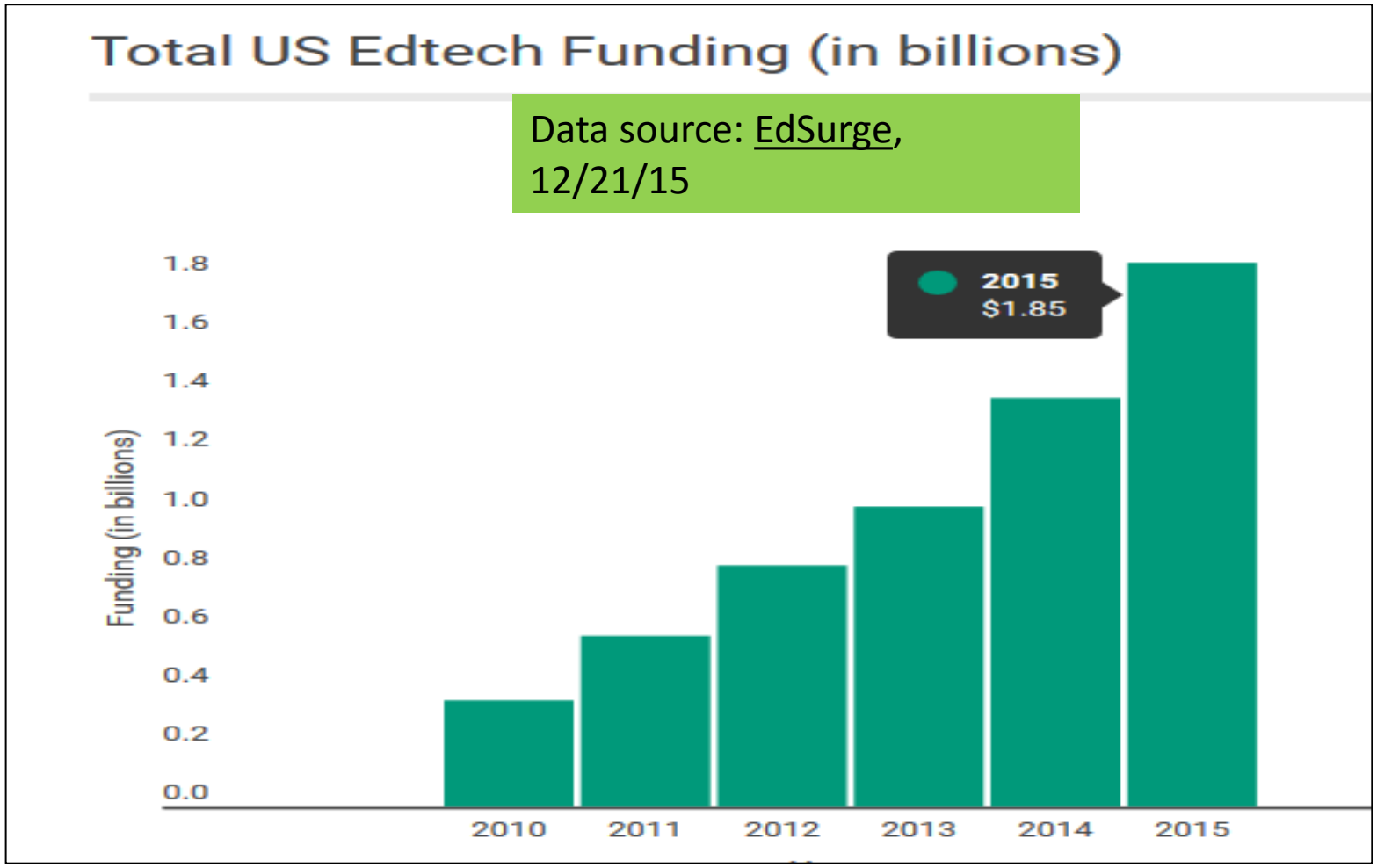
Is this “personalized”learning?

Rocketship charters in CA

Ed tech is big business and is growing fast –globally



....and in the United States



NO research to back up online learning in K12 education

"Few rigorous research studies of the effectiveness of online learning for K–12 students have been published."

"A systematic search of the research literature from 1994 through 2006 found **no experimental or controlled quasi-experimental studies** comparing the learning effects of online versus face-to-face instruction for K–12 students that provide sufficient data to compute an effect size. "

"A subsequent search that expanded the time frame through July 2008 identified just five published studies meeting meta-analysis criteria. … when learners' age groups are considered separately, the mean effect size is significantly positive for undergraduate and other older learners **but not for K–12 students**."

Source: U.S. Department of Education Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service, ***Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies***, Revised September 2010

https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf

OECD study:

- "Countries which have invested heavily in information and communication technologies (ICT) for education have seen no noticeable improvement in their performances in PISA results for reading, mathematics or science. "

- Source: OECD, "***Students, Computers and Learning: Making The Connection***", 2015 http://www.oecd.org/education/students-computers-and-learning-9789264239555-en.htm

OECD conclusion?

- “One interpretation of all this is that building deep, conceptual understanding and higher-order thinking requires intensive teacher-student interactions, and technology sometimes distracts from this valuable human engagement. “

Contrast with Class Size reduction: a proven reform allowing for “personalized” learning

- Lowering class size is one of four K-12 reforms cited by Institute of Education Sciences as shown to increase student learning thru “rigorous and randomized experimental evidence.”

- Students in smaller classes in early grades get better test scores, higher grades, are more engaged & less likely to be referred for disciplinary problems

- Also, more likely to graduate from HS, more likely to go to college, more likely to graduate with a STEM degree, own their own home and have a 401K years later.

- Many studies show that smaller classes in middle and upper grades also correlated with higher graduation rates and better “non-cognitive” skills like persistence.

**** Other three K-12 evidence-based reforms include one-on-one tutoring by qualified tutors for at-risk readers in grades 1-3, Life-Skills training for junior high students, and instruction for early readers in phonemic awareness and phonics.***

Online charter schools

- Center for Research on Education Outcomes at Stanford University study showed nearly NO learning at online charters

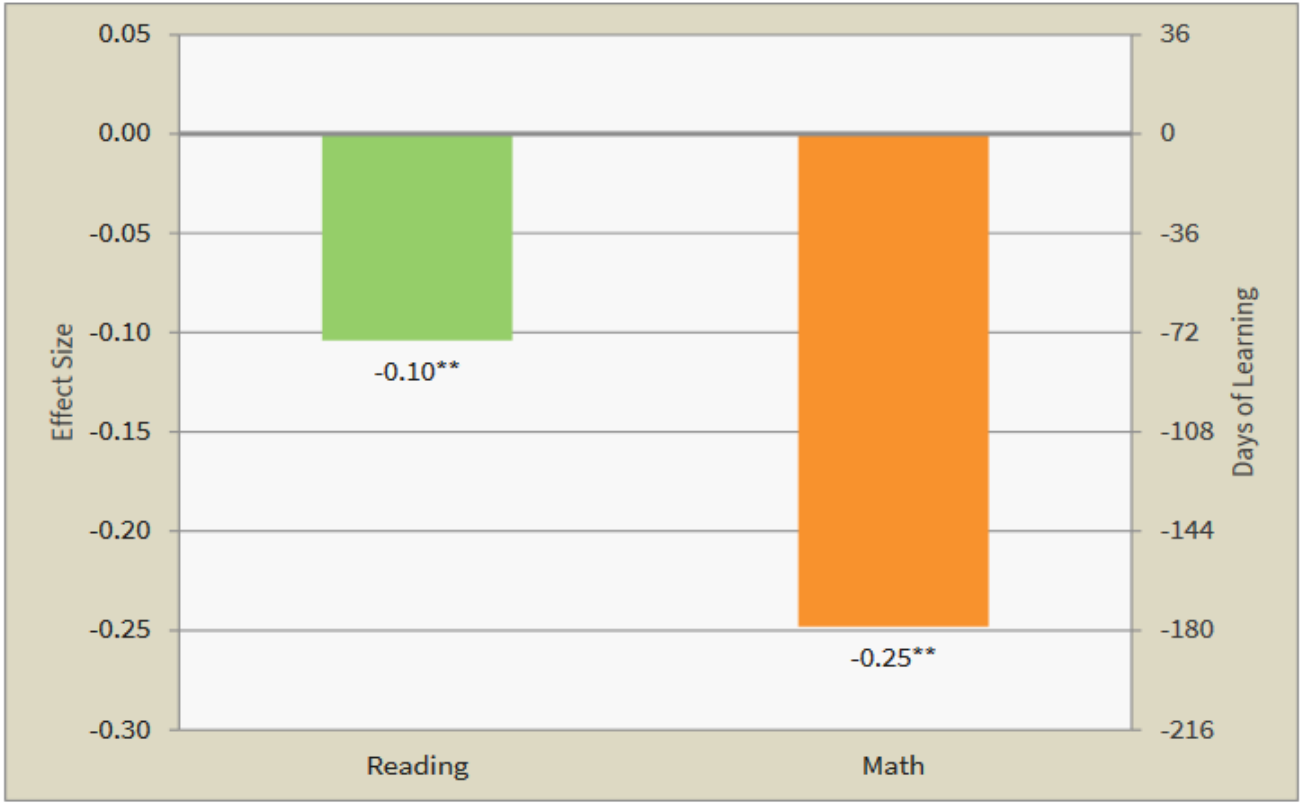
- Students in online charters lost an average of about 72 days of learning in reading and 180 days of learning in math during the course of a 180-day school year compared to students on average at other types of schools.

- "***It is literally as if the kid did not go to school for an entire year,***" -----Margaret E. Raymond, project director .

- Source: CREDO Online Charter Study, 2015 https://credo.stanford.edu/pdfs/OnlineCharterStudyFinal2015.pdf

Impact of attending online charter school compared to average public school

Figure 3: Impact of Online Charter Attendance on Average Student Academic Growth, Reading and Math



The 0.00 line for this graph represents the average TPS VCR, White, non-poverty, non-ELL, non-SPED student.

Many studies show that expansion of computer usage may widen achievement gap

- Using within-student variation in home computer access, and across-ZIP code variation in the timing of the introduction of high-speed Internet service, we also demonstrate that the ***introduction of home computer technology is associated with modest, but statistically significant and persistent negative impacts on student math and reading test scores.***

- Further evidence suggests that providing universal access to home computers and high-speed Internet access would ***broaden, rather than narrow, math and reading achievement gaps.***

- Source; Vigdor, J. L., Ladd, H. F. And Martinez, E. (2014***), Scaling The Digital Divide: Home Computer Technology And Student Achievement.*** Economic Inquiry, 52: 1103–1119. http://onlinelibrary.wiley.com/doi/10.1111/ecin.12089/abstract

- *See also: http://www.urban.org/research/publication/scaling-digital-divide-home-computer-technology-and-student-achievement*

Comparison of essays written on computers vs. paper & pencil

- High-performing students did better on the computer than with pencil and paper. But average and low-performing students did worse.

- Low-income and black and Hispanic students tended to be in this latter category.

- *"(T)he use of the computer may have widened the writing achievement gap"*

- Source: Performance of fourth-grade students in the 2012 NAEP computer-based writing pilot assessment, October 2015. http://nces.ed.gov/nationsreportcard/subject/writing/pdf/2015119.pdf

Philadelphia library study

- "The very tool designed to level the playing field is, in fact, un-leveling it…"

- With the spread of educational technology, ***"the not-so-small disparities in skills for children of affluence and children of poverty are about to get even larger."…***

Source, Susan B. Neuman and **Donna C. Celano, Giving Our Children a Fighting Chance: Poverty, Literacy, and the Development of Information (2012**)

Kentaro Toyama, formerly of Microsoft

- "But no matter how good the design, and despite rigorous tests of impact, I have ***never seen technology systematically overcome the socio-economic divides that exist in education***. "

- "Children who are behind need ***high-quality adult guidance*** more than anything else. "

- In most of the research on this topic, affluent students use technology for more creative purposes with more adult supervision, while less affluent students use technology for repetitive drill and practice or play video games without the same level of guidance.

- ***Technology's primary effect is to amplify human forces, so in education, amplify whatever inequalities and gaps already exist.***

- Kentaro Toyama: Technology won't fix America's neediest schools. It makes bad education worse. - The Washington Post June 4, 2015 excerpt from***: Geek Heresy: Rescuing Social Change from the Cult of Technology, 2015.***

Many studies of college online courses find widening achievement gap

- WA community colleges: “While all types of students in the study suffered decrements in performance in online courses, those with the strongest declines were males, younger students, Black students, and students with lower grade point averages. “

- Study in two states: “Students who manage to finish online courses earn lower grades than they do in traditional classes. Black students, men and students with lower prior grade point averages fare particularly poorly. For these students, online classes significantly widen an already existing achievement gap.”

- “In interviews, many students report that the personal connections they develop with instructors in the classroom are vital to helping them learn.

- “Instructors of online courses say students need well-developed study and time management skills to succeed .”

Again, opposite to class size reduction

- Study after study show smaller classes narrow achievement gap between racial & economic groups

- All students do better in smaller classes, but those from disadvantaged groups gain twice the benefits

- Yet too often, these are the students who will be forced to spend their days receiving lessons from computers rather than human beings

Clayton Christensen and Michael Horn "Disrupt" education through online learning to transform learning

- "Computer-based learning on a large scale is also less expensive than the current labor intensive system and could solve the financial dilemmas facing public schools" (Christensen and Horn, 2008).

- Schools should be "eradicating rules that restrict class size and student-teacher ratios" (Horn and Staker 2011, 13).

- "Budget cuts and teacher shortages are an opportunity, not a threat" (Horn et al. 2014).

Make up solutions – with no evidence behind them

- Allow “top teachers “ to voluntarily shift more children into their classrooms by paying them more.

- Offer courses by “excellent “ teachers to “ interact personally “ with students via email and web cameras or recordings and software “to deliver top teaching.”

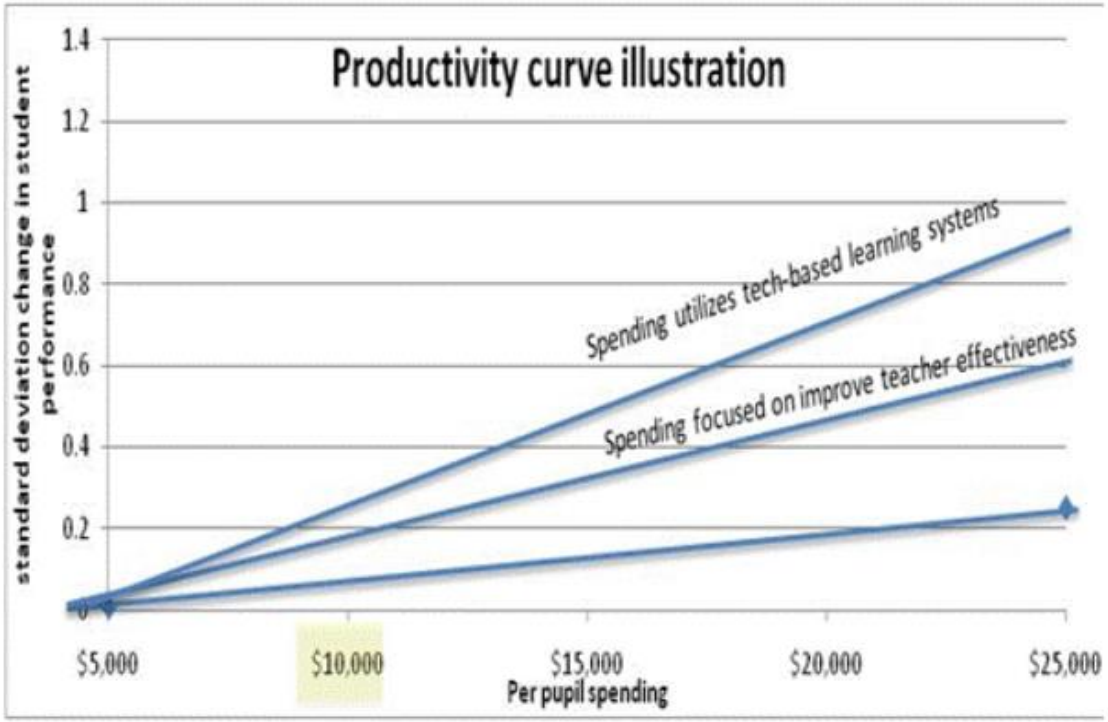
- Eliminate class size limits and seat-time requirements

- Provide universal wireless broadband access for all school-age children, to enable digital instruction combined with teacher-led instruction.

- Build instructional and data systems: to monitor student progress and customize instruction for students.

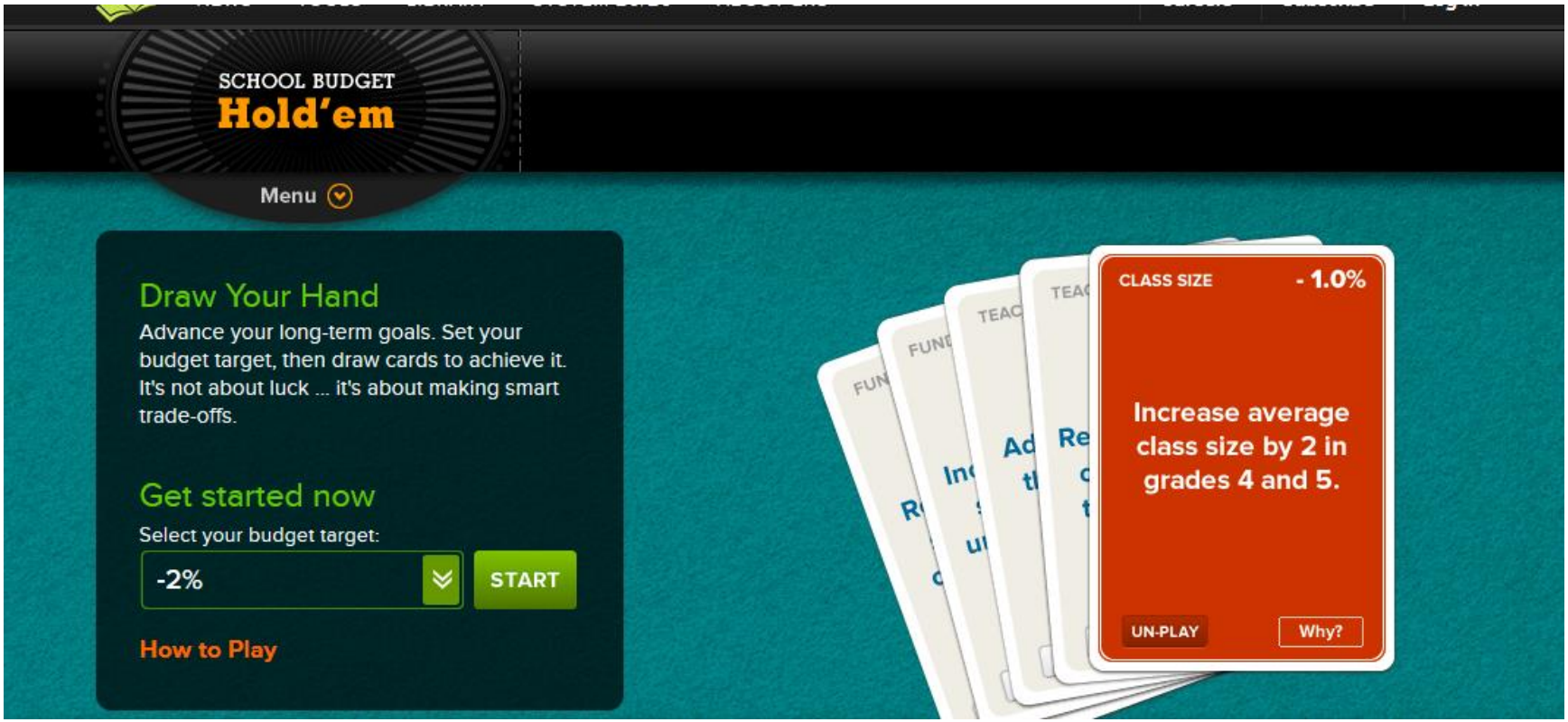
- Source: Bryan Hassel, Public Impact, 2011
https://library.educause.edu/~/media/files/library/2011/1/csd6162-pdf.pdf

Make up charts to "prove" unsupported reforms



Source: Chart presented by Marguerita Roza, Gates Foundation adviser at NYSED symposium, September 13, 2011
http://www.p12.nysed.gov/mgtserv/docs/SchoolFinanceForHighAchievement.pdf

“Train” administrators using absurd games



Education Resource Strategies

Use federal RTTT funds to “advise” districts

- **“One** district, Tioga Central School District, operates on an extremely tight budget. They therefore chose a cost-neutral option.’

- “Tioga will reduce their 2nd grade classrooms from 4 to 3, and have the 4th teacher “push in” to all classes at key moments. ***This allows for greater personalized attention when students need it,*** and a schedule with more collaborative planning time and more teacher specialization in different subjects for easier preps.”

- *BUT this is neither a money saver NOR* ***research-proven way***
- *to provide more personalized attention!*

- **ERS:NYSED District Partner 2014-2015 with RTTT funds**

US ED promoting online learning through the “Future Ready” schools initiative with various corporations and nonprofits

The Alliance for Excellent Education leads the Future Ready in conjunction with the U.S. Department of Education and a vast coalition of national and regional organizations. Special thanks to our corporate contributors!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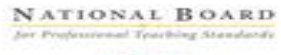
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International Center for
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ASSOCIATION
Great Public Schools for Every Child


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National School Boards Association


C O
D E


LEAD
COMMISSION


newschools
venture fund


Connected
Educators


pell
abacus


NATIONAL
RURAL
EDUCATION
ASSOCIATION


CTQ
CENTER FOR
TEACHING QUALITY


P21
PARTNERSHIP FOR
21ST CENTURY LEARNING


NWP
NATIONAL WRITING PROJECT


Digital Promise


The Learning
Accelerator


SIIA


Digital Learning Now


LEARNING FIRST ALLIANCE


SETDA


edcamp


naesp


STUDENT VOICE

US ED also hawks digital learning products

example: Edgenuity from Pearson

Rhode Island School Makes Learning "Personal" for Students

Students get some face-to-face help from a teacher in the Village Green Virtual School Learning Center. Photo Credit: Village Green Virtual School.

Students move at their own pace toward mastering standards and college and career readiness.

Picture this. Sarah, a 10th-grader, is in the learning lab finishing up an assignment on Julius Caesar. She has one more test and a final to pass before she moves on to 11th-grade material. She can take the tests whenever she feels ready. She can then shift her attention to mathematics, where she is several assignments behind.

Ed.gov

PROGRESS

Teachers, Leaders and Students Transforming Education

A blog highlighting innovative ideas, promising practices, lessons learned and resources informed by the implementation of K-12 reforms to improve education for all students.

Email Updates

Online Platform Allows for Self-Paced Learning

Village Green uses an online curriculum, called "Edgenuity," which allows students to move through assignments at their own pace. Every student has a workstation where they log into their own personal Edgenuity portal and choose what to work on. Students take frequent tests and quizzes, and complete practice assignments. A data dashboard displays skills they've already mastered in green, those they are on track to master in blue and those they are struggling with in red.

Student review: Edgenuity “waste of time”

- “In several of my high school classes, the corporation Edgenuity's products have been used to replace teachers completely.”

- Edgenuity is NOT an adequate replacement, and it has effectively wasted my time, left me frustrated and unhappy, and given me very little substantial knowledge. My first and biggest complaint is the content and the way it is taught.

- Every lesson has a collection of videos- about 10 videos that are 3-4 minutes long in length, interrupted by 2 or 3 questions. The videos feature a teacher and a slide. The teacher reads off the slide, offers a little extra information, and presses the "next" button. The information on the slide is vague, poorly worded, and often biased or completely untrue.

- A prime example? When learning about the origins of religion, my World History class taught me that it was a historical fact that Jesus came back to life 3 days after his death.

When all else fails: Attack parents who speak against online tools

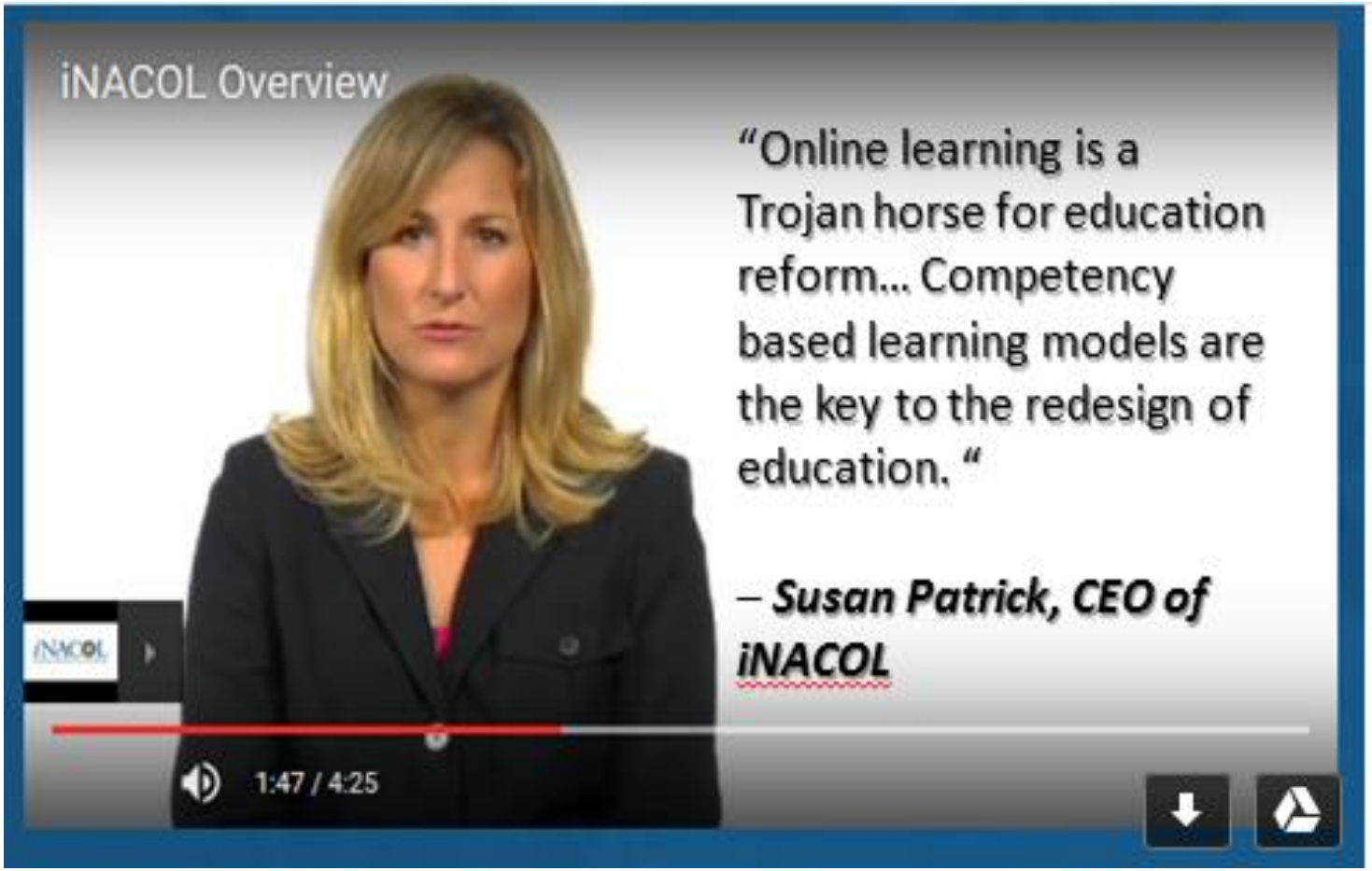
- Heather Hicks ,NJ parent and teacher, spoke against Biology program assigned to her son at her school board meeting

- Bruce Friend, the chief operating officer of iNACOL (the International Association of K-12 Online Learning) attacked her repeatedly in a February 2016 workshop he gave at Pearson's CITE 2016 conference – on panel called "Gaining Stakeholder Buy-in for your Online/Blended Learning Program." (Later gave the same presentation at the Mid-Atlantic Conference on Personalized Learning)

- Friend accused her of having "killed just about three and half years of work" with her presentation, that she refused to "let the facts get in the way of the truth."

- He also spoke how he had seen her son's log-in data in the Edgenuity program – a violation of his personal privacy– and suggested that the school board should have shut off her microphone.

Why are they so intent on pushing online learning?



What have we learned?

- Data-mining software companies & their allies in foundation/gov. sectors see huge potential & profit in putting education/assessment online.
- Though no research behind it, K-12 software ed. tech market estimated at $7.9 *billion*, over $90 billion globally.
- Feeds off narrative that our education system is “failing” or “broken”; needs “disruptive” change.
- Ultimate goal to eliminate as many teachers as possible in favor of mechanized instruction.
- Euphemistically called “personalized learning” but really de-personalized learning.
- Government and private interests are determined to outsource instruction to machines, and will not give up easily, without a fight.


How we teach and learn has benefited from some technological advances, such as PowerPoint presentations, online courses and outfits like Khan Academy. But after thirty years as an educator, I am convinced that the ideal experience for a student is a small class that fosters personal interaction with a dedicated instructor.
N. Gregory Mankiw, Professor of Economics , Harvard University

Joe Bower, Canadian teacher and blogger