

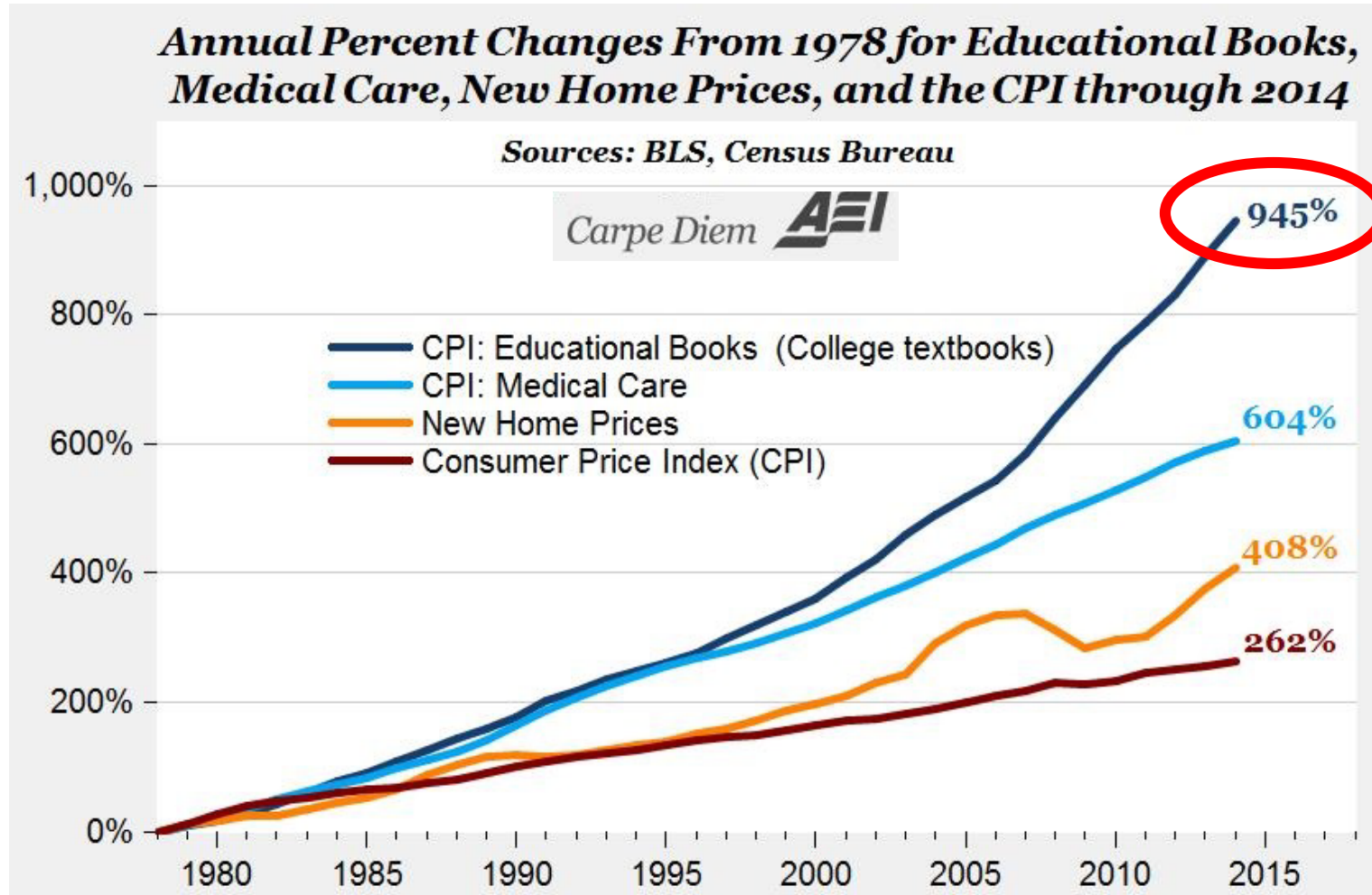


openstax™

*Richard Baraniuk*



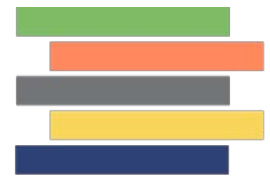
# economics gone awry



- **\$400 textbooks**

- **\$1.2T in student debt**

# open textbooks



openstax  
COLLEGE

- **College textbook publisher**

- professional-quality
- peer-reviewed
- turn-key adoptable
- **free, open-source**
- non-profit



- **Venture philanthropy** funding model

- Launched in 2012
- Builds on active tech development since 1999

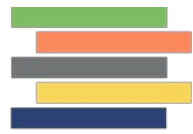


BILL & MELINDA  
GATES *foundation*



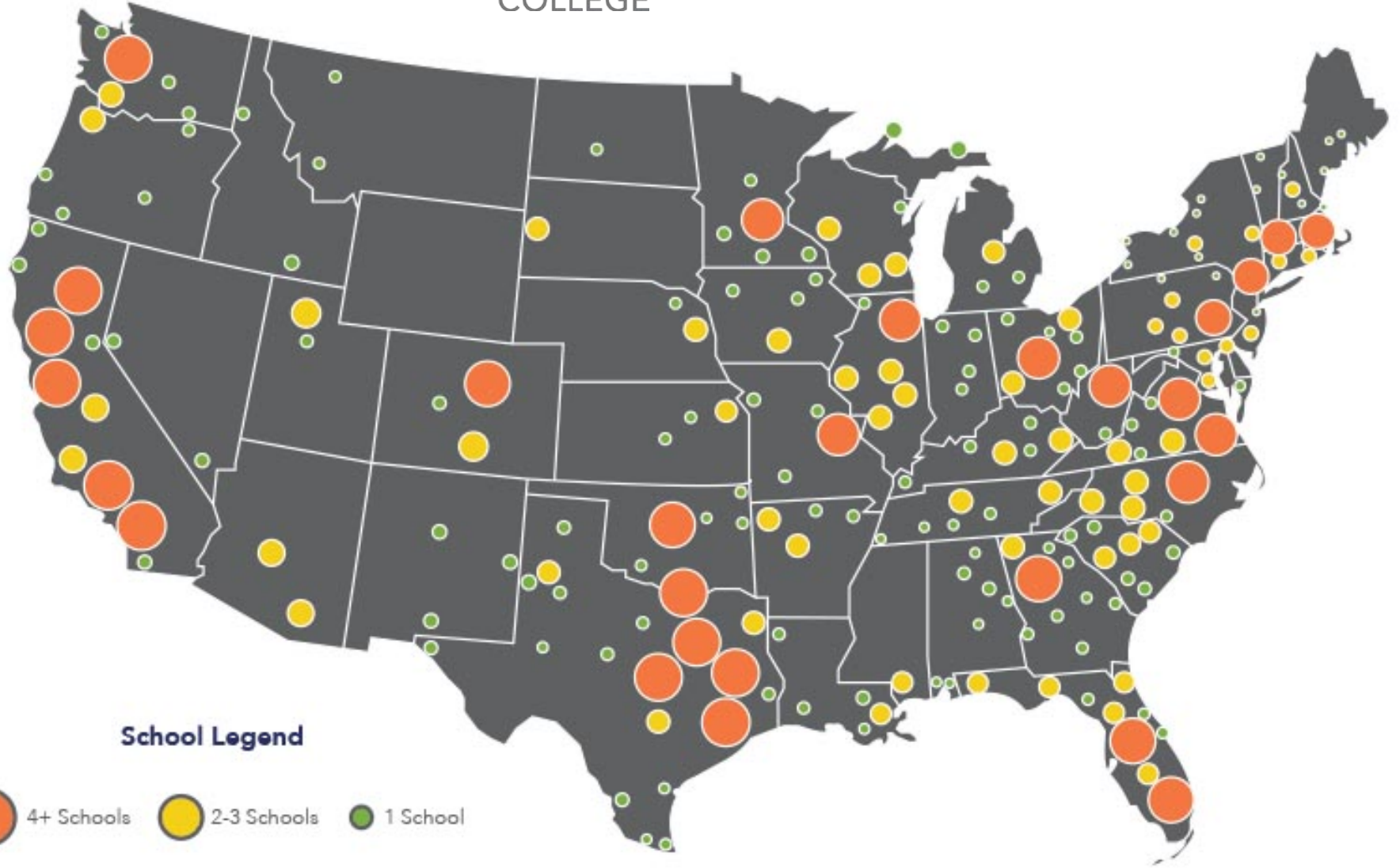
BENIFICUS  
— FOUNDATION —

THE CALVIN K.  
KAZANJIAN  
ECONOMICS FOUNDATION



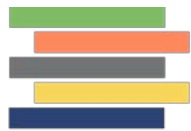
openstax  
COLLEGE

JULY 2014



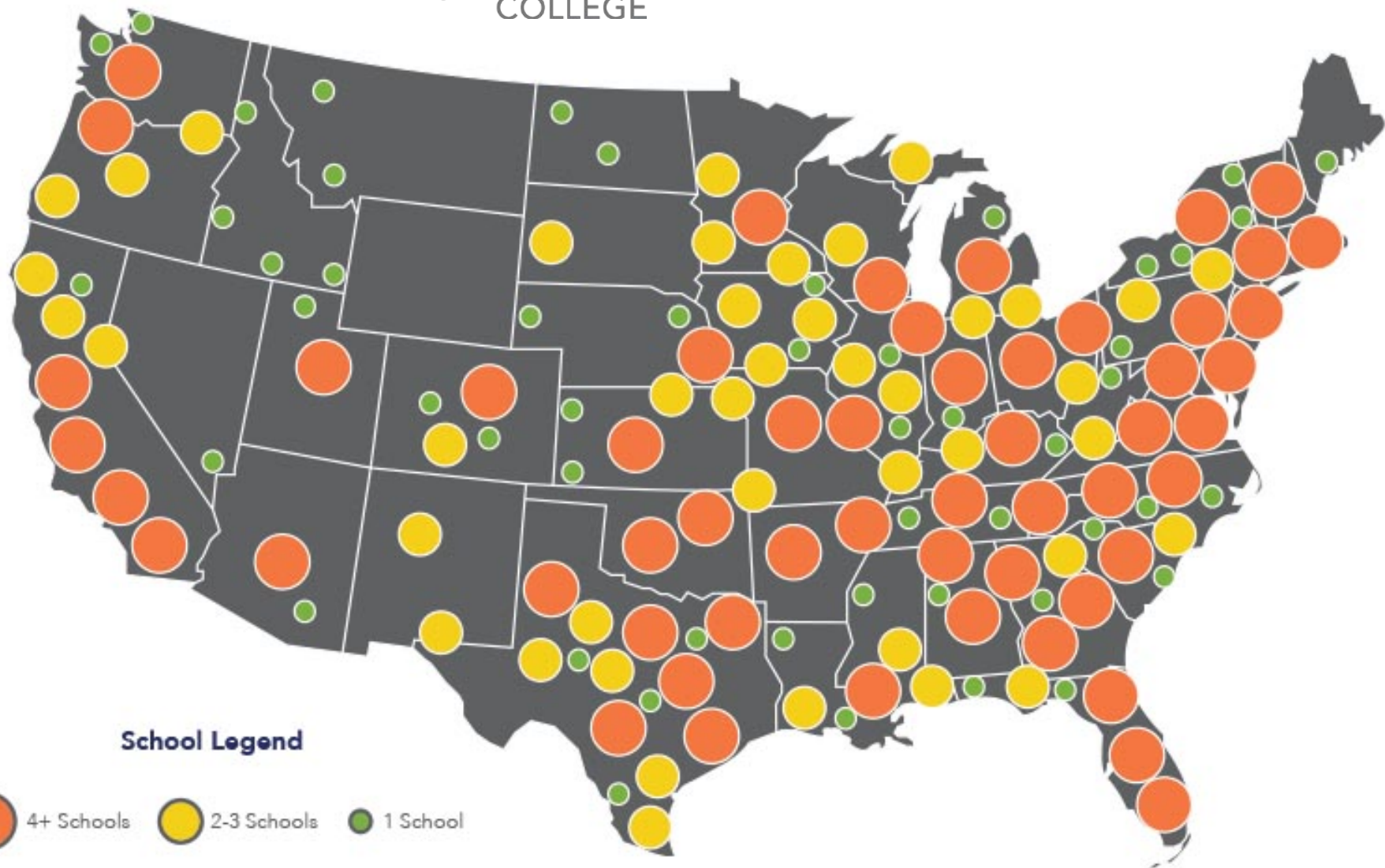
School Legend

- 4+ Schools
- 2-3 Schools
- 1 School

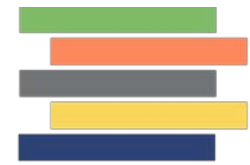


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COLLEGE

DECEMBER 2014



# progress across US

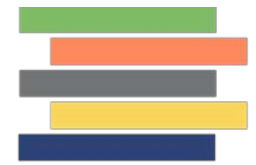


openstax  
COLLEGE

- **2300 adoptions** at 1300 institutions, saving 650,000 students over \$63M
  - hundreds of community colleges and high schools but also Stanford, Princeton, Ohio State, U Georgia, U Mass, UT System, Rice, ...
- **22%** of US degree-granting institutions are using at least one OpenStax text



# progress in **Texas**



openstax  
COLLEGE

- **250 adoptions**, saving 100,000 students over \$9M
- **52%** of Texas degree-granting institutions are using at least one OpenStax text
- Strong uptake in **AP** and **high school** courses



# sustaining ecosystem



WILEY



simbio



inkling



lumen



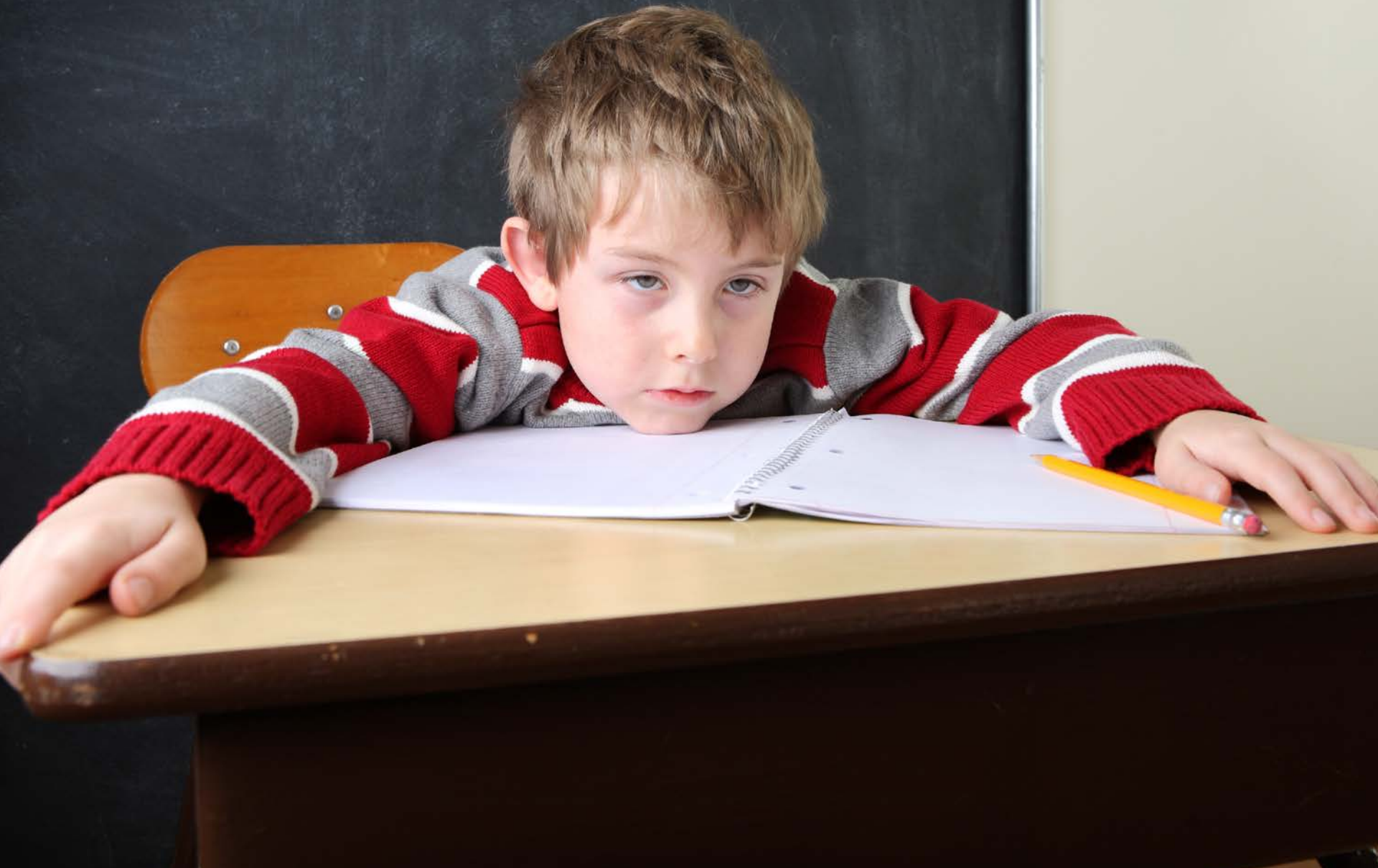
MyOpenMath

xyz homework





# learning challenges



# technology to the rescue?





data



close the learning

**feedback loop**

data

Cognitive  
Science

Machine  
Learning

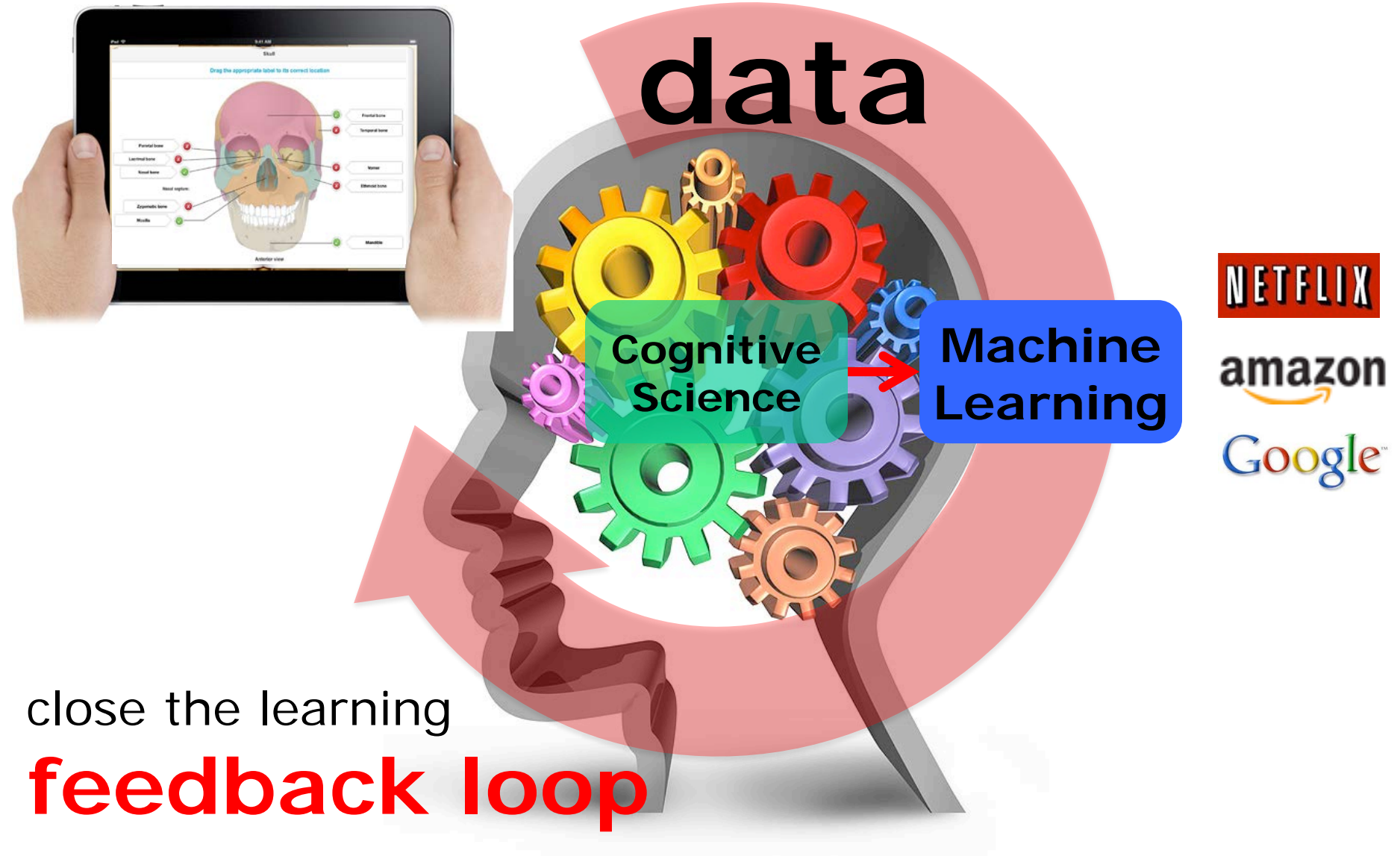
NETFLIX

amazon

Google

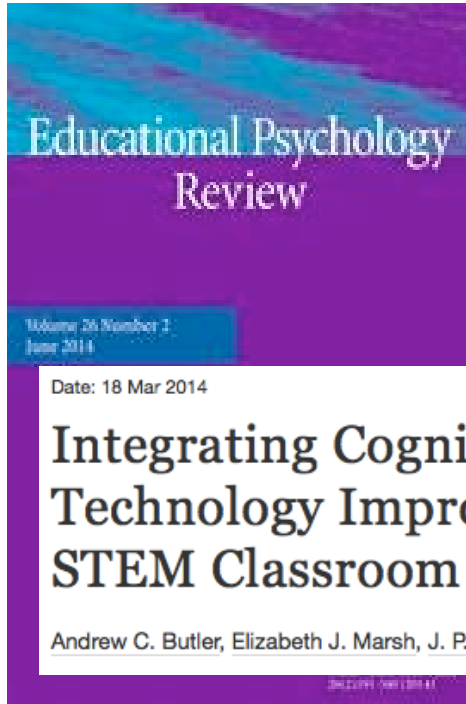
close the learning

**feedback loop**





# classroom study



- Experiments at Rice 2012-2015 (Engineering)

- Findings: Students using OpenStax tools scored **½-1 GPA point better** than those using standard practice homework



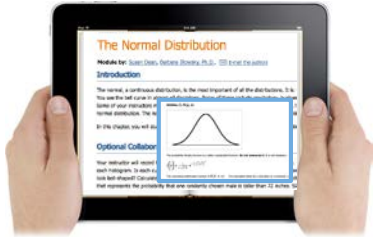
BILL & MELINDA  
GATES foundation



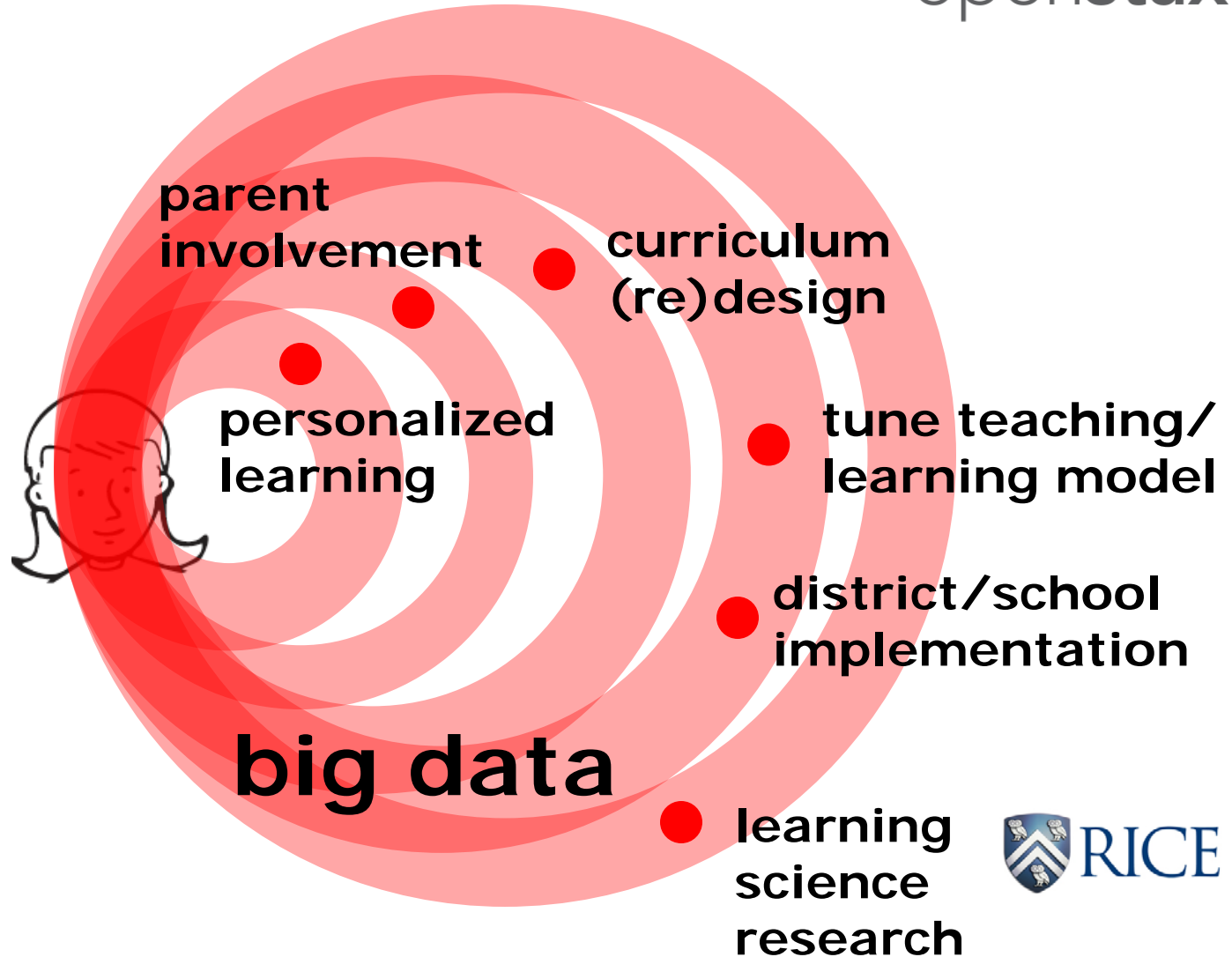
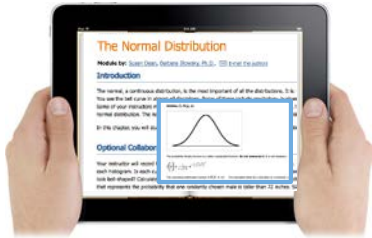
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# **cycles of innovation**



# **cycles of innovation**







open**stax**<sup>TM</sup>



OpenStaxCollege.org