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Personalizing Learning to Improve Student Outcomes

Education is going through a one-time shift from print to digital.

1

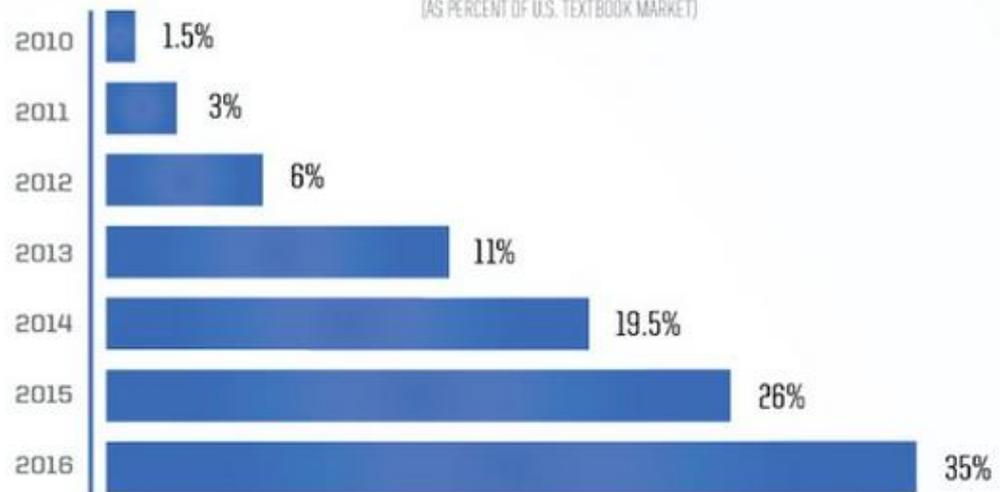
DIGITAL CONTENT

Digital textbook sales are projected to grow rapidly over the next decade



DIGITAL TEXTBOOKS SALES

(AS PERCENT OF U.S. TEXTBOOK MARKET)



Sources: Ambient Insight | Sloan Consortium | American Association of School Administrators | Center for Budget and Policy Priorities | New Media Consortium | Xplana | Livres Hebdo Publishers Weekly | BMO Capital Markets | Xplana | Gates Foundation | CIA World Factbook | Go-eknowledge.com | Arizona State University | University of Alabama | DeVry University | Capella Education | Florida Virtual School | Michigan Virtual School | Mackinac.org | Trade.gov | Education-Portal.com | CornellSun.com | Dartmouth.edu | Knewton Internal Estimates

Online learning continues to rise.

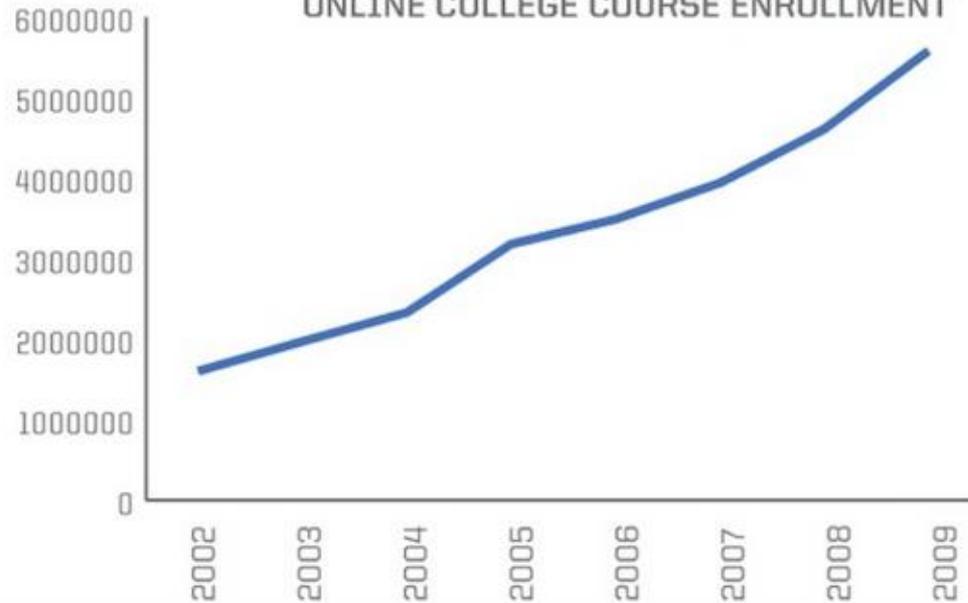
2

MASS DISTRIBUTION

The transformation of content from print to digital formats streamlines distribution and enables learning to happen anywhere.



ONLINE COLLEGE COURSE ENROLLMENT



Education tech has focused first on distribution and increasing access.



Now we must look ahead to the next phase: *personalization*.



NETFLIX

PANDORA
internet radio

Google[™]

amazon



Knewton's mission is to bring personalized learning to the world.

Knewton improves learning by:

- **Helping students learn more efficiently and effectively**—quantitatively determining what a student knows, how s/he learns best, then **recommending what to study next** so no student is left behind or bored.
- **Empowering teachers** by helping them to define student goals and providing them **actionable information** on what each student needs to work on and why.

It's Working

ASU MATH READINESS		
	FALL '09- SPRING '11	FALL '11-SPRING '12 WITH KNEWTON
PASS RATES	64%	75%
WITHDRAWAL RATES	16%	7%
STUDENTS FINISHING EARLY	N/A	45%

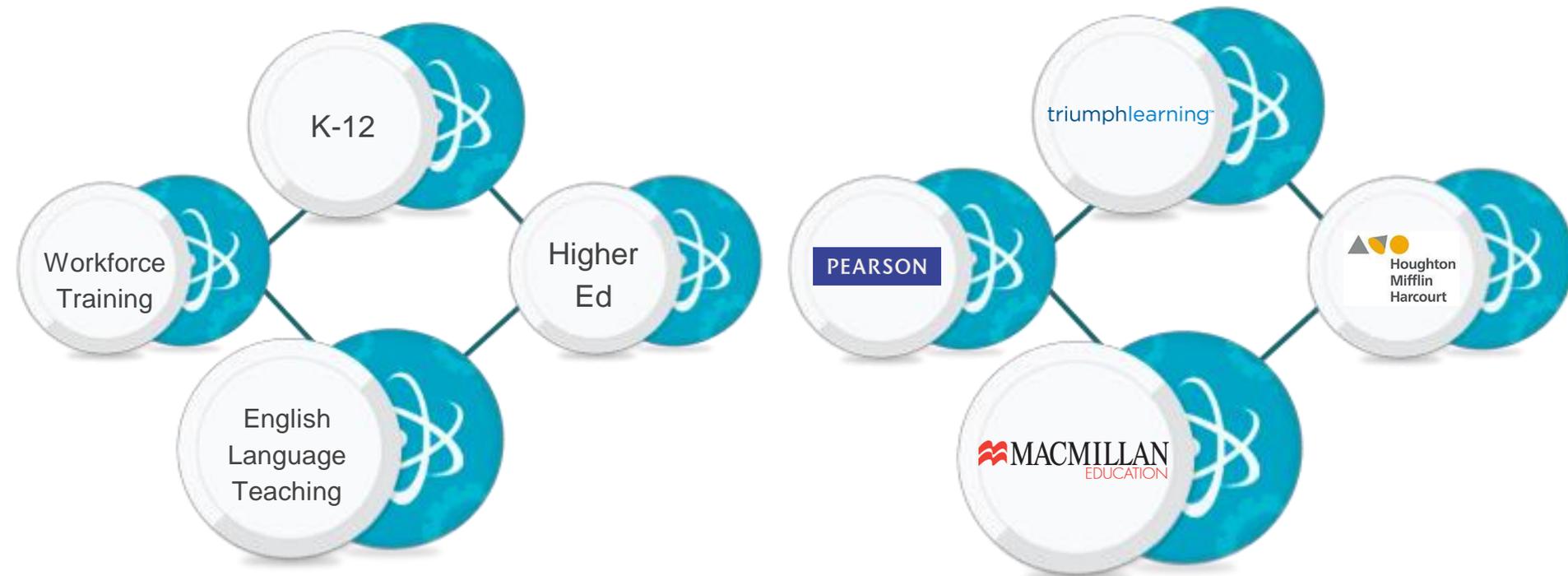
UNIVERSITY OF ALABAMA MATH READINESS		
	TRADITIONALLY	FALL '12 WITH KNEWTON
PASS RATES	70%	87%

UNLV MATH READINESS

82% of students who placed into developmental math at the onset of the Knewton-powered Summer Bridge program passed into college-level credit-bearing courses.

Personal learning profile

Over time, as more students use Knewton-powered learning materials and apps, every student will be able to have a personal learning profile that stores concept-level strengths, weaknesses, background, preferences, and more; this profile can be carried by the student from course to course, school to school, to make each learning experience more effective and tailored to their needs. From preschool through college graduation, workforce training through decades of life-long learning, profiles becomes more robust and ultra-personalized.



How is Big Data Affecting Higher Ed?



- The most important role of the university is employability, both immediate and long-term.
- Big data will begin to reveal which schools, and even instructors or courses, best prepare students for certain careers.
- Learning profiles will reveal the best matches for employers.

Challenges for Higher Ed



- “Jobs” of Institutions: facilitating learning, increasing employability, and providing a coming of age experience.
- Making graduates employable will soon be disrupted as learning outcomes become more transparent.

Actions for Higher Ed



- Start measuring.
- You can't improve your processes around driving higher outcomes if you don't measure those outcomes.
- Get ahead of the curve and get control of your data.



Thank you

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