

# Open Education Resources and Online Learning: Where is CA going?

An innovative alternative

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# California Lagging in providing students online resources

- None of the three systems of higher education has adequately addressed the problem of too many students for higher education seats.
- Over the past two years some 300K students have been turned away from community colleges -- some are escaping to Arizona. Yet there has been little action and lots of excuses.
- Bureaucratic tangles, fear of new solutions that might change age-old ways of teaching, and a lack of commitment to meet student needs impede efforts to create responsive online capacity in the systems.

# Other places have acted

- WGU campus in Texas provides access to competency credits and diplomas.
- In the last 20 years open universities modeled on the OU-UK have sprung up in dozens of countries -- many far smaller than CA.
- The CA systems have the capacity and competence to meet these challenges -- the problem – the fault, dear friends, is not in the stars but in ourselves.

# MOOCs have accelerated change

- Coursera, ED X, Udacity, Udemy, Class2go etc.  
– the MOOCs have arrived, in force and style.
- Online courses, Clay Christensen's Disrupting Class, the experiences in the army, the Open Universities across the world. Change is now.
- MOOCs are free -- MIT-OCW is free and open  
– iTunes University courses are free. Hundreds of thousands of open and free educational materials are available.

# What is Open?

- Free: MOOCs (Teacher and Principal Training, Am Museum of Natural History, Library of Congress, Harvard Library Collections etc)
- Free, usable, and often reusable: Khan Academy (over 200 million downloads + YouTube + Other sites), Gooru, PhET (90 million simulations delivered), OERCommons, Currwiki, Public Domain materials, CK 12 textbooks, Connexions, Yale, MIT-OCW, OCW-C, courses all over the world, OU-UK courses.

# California Examples

- CK12 free textbooks: Math and Science textbooks reviewed and passed with flying colors.
- Khan Academy materials. Being used in schools and homes across the state. Multiple studies of effects.
- Many MOOCs

# California 2

- MITE/NROC: open courses online and freely distributed and supported around the State: Free Membership and free access for K-12 systems.
  - On-line multimedia courses: AP, other advanced, algebra.
  - 42 CA school systems, districts and schools (these serve (986K students): no data on number of students served).
  - Vetted, maintained, supported by MITE. Possible loss for CA
  - On their website (Hippocampus) million page views in October from CA – 495 CA cities, est that half come from classrooms est 400K students reached.

# Open and free a serious Alternative to Commercial materials and courses

- Open generally high quality – CK 12 books very high scores on CA vetting.
- NROC algebra promising strong results in six school study
- Khan Academy – vetted by whole world -- quite promising in a variety of studies.
- PhET -- simulations, Pearson embeds them.
- Studies of open textbooks indicate clear savings.



# Evaluation

- SRI finds positive effects from online courses of all sorts compared to standard lectures at Post-Sec level. Other meta-analyses have found the same result. Other research finds some no effects results -- meaning that the online programs are as good as traditional teachers.
- Many OER materials are being evaluated - with the evaluations sometimes paid for by foundations and the government.
- Commercial materials publicly and regularly evaluated?— a few have, a very few.

# What might CA do? A few examples.

- Create or get a volunteer of three institutions, one in each sector (CCC, USC, UC), that gives credit for performance -- like the WGU. Use free courses when possible.
- Allow students enrolled in existing institutions to get credit for their performance on selected MOOCs and other open online courses.
- Use capacity in institutions like Coastline and UC Irvine to create and offer credit bearing courses to any CA student across the state. Use proctored EOC exams.
- Create an OU-UK model open university.
- Carry out a research agenda that uses online courses to reduce the time to degree in all three sectors.