

Reinventing Education

Dr Justin Pringle

Outline

- When was the last *Major* change in education?
- What is our response to massification?
- Where do we need help?
- How can we succeed?

...but first a disclaimer...

- I am an engineer/fluid dynamicist.
- My students are engineers.
- My teaching experience is limited.
- This is where creativity lies...

A Little Introduction...



How has education changed?

Then



How has education changed?

Now

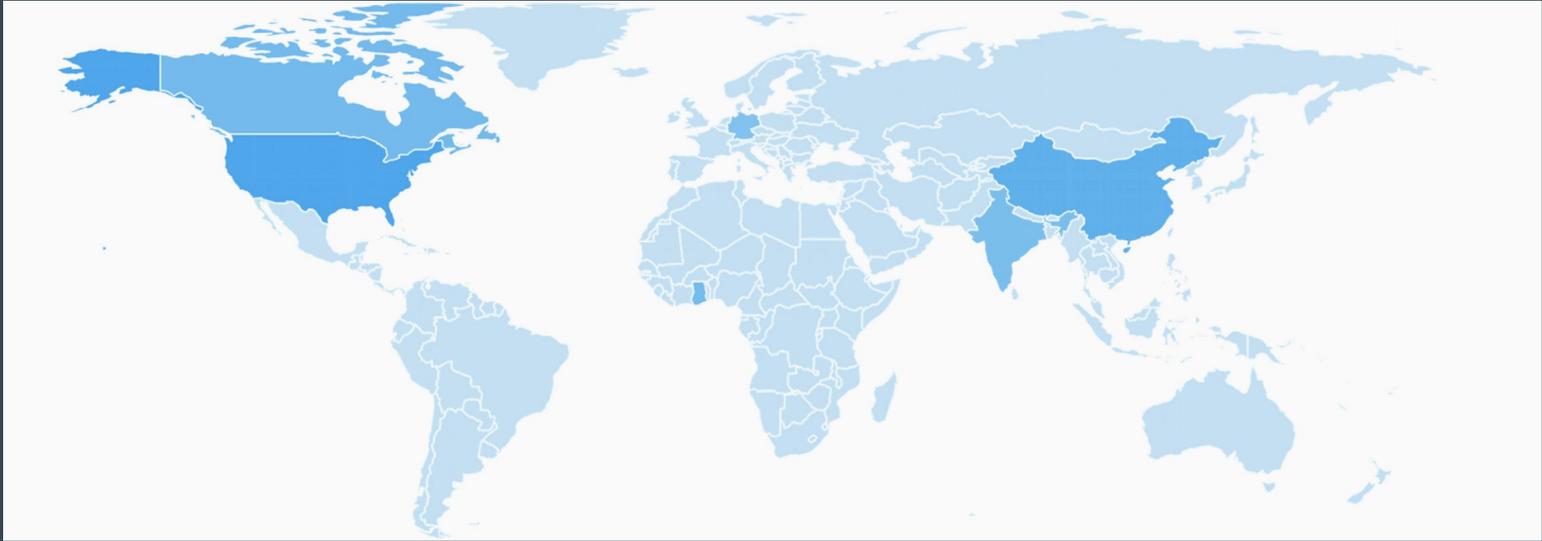


Our Response to Massification?

- Resource demand.
 - Can we simply make bigger venues?
- Teaching time and quality
- Marking...
- Staff numbers...

Introducing the MOOC

Massive Open Online Course - 2012/2013



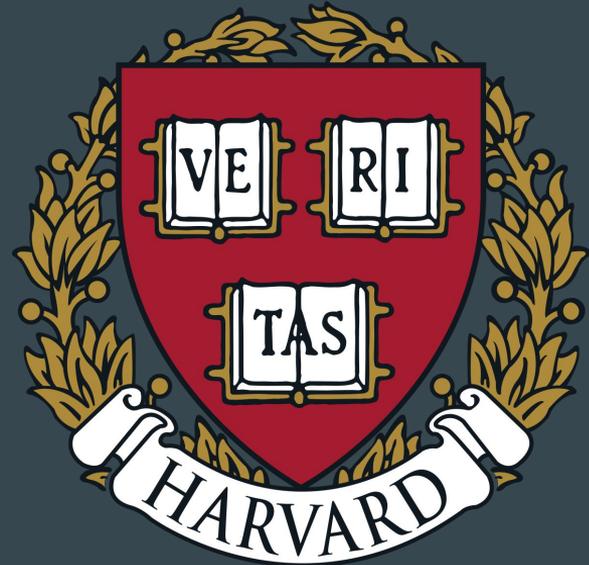
MOOC at small scale

Can we apply MOOCs at small scale?

MOOC at small scale

Can we apply MOOCs at small scale?

Yes we can thanks to MIT and Harvard



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- Open Source
- Tried and Tested
- Not a Course “vomit” -> Specifically designed to reinvent education
- Entire online course designed around student
- Active Learning

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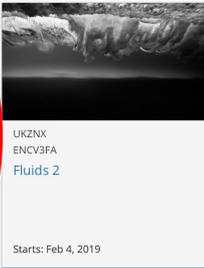
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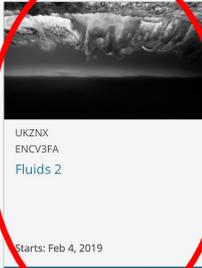
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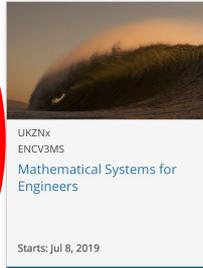
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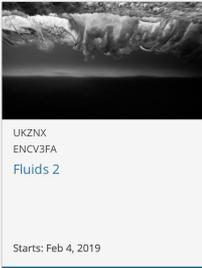
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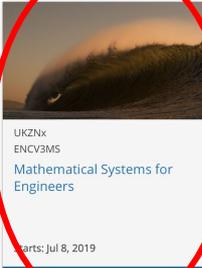
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Help?

Redefine the “course team”

Help?

Redefine the “course team”

edX Engineering Team



Success?

To Begin...

To communicate...

To teach...

To Learn...



Empowering staff & students to be content creators

Elne van Niekerk

NWU

12 February 2019

Blended learning

Multi-modal delivery Online courses

Community of Inquiry

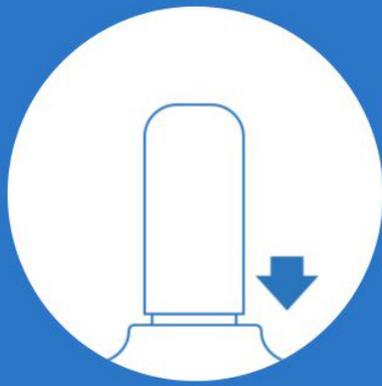
Flipped learning Online learning

Multimedia *Social Presence*

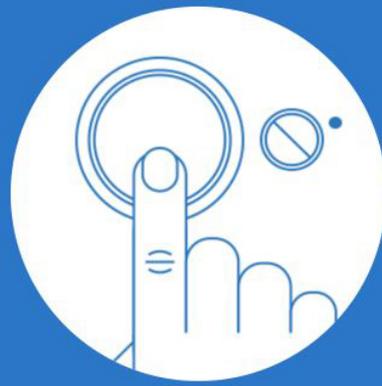
Vanderbijlpark



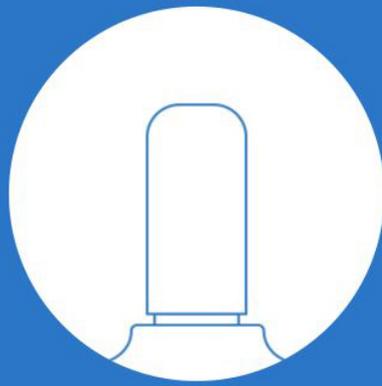
One Button Studio



Insert your drive into the dock to begin.



Press the button to start/stop recording.



Remove your drive when you are finished.

AD

STUDENT OPEN DAY

ONE BUTTON STUDIO

Join us to learn more about the first One Button Studio in Africa! Visit the studio and stand a chance to take home an amazing prize.

Building 13, SL 107

10 AUGUST 2016

09H00 - 15H00

Our friends of Bay FM will be broadcasting LIVE on the day and will also be giving away caps and headphones to a number of lucky students.



Studio 1 - 2016

2016	Videos recorded	Average size of videos recorded (MB)	Average time recorded (h:min:sec)	Button presses
March	37	314.24	00:06:01	74
April	312	21.64	00:00:45	624
May	751	53.34	00:01:52	1502
June	167	70.05	00:02:27	334
July	680	43.7	00:01:32	1360
August	1037	37.95	00:01:20	2074
September	928	50.52	00:01:47	1856
October	471	99.17	00:03:30	942
November	103	71.31	00:02:30	206
Total for 2016:	4486	84.66	00:02:25	8972

Studio 1&2 - 2017

2017	Videos recorded	Average size of videos recorded (MB)	Average time recorded (h:min:sec)	Button presses
³ January	30	256.25	00:04:12	60
^{1,3} February	752	353.19	00:01:20	1504
March	1192	57.415	00:01:49	2384
April	1426	81.17	00:02:39	2852
¹ May	2953	43.6	00:01:54	5906
¹ June	779	35.47	00:01:54	1558
July	522	48.37	00:01:26	1044
August	1540	34.93	00:01:15	3080
September	1707	48.49	00:01:41	3414
October	1783	45.8	00:01:37	3566
November	236	48.695	00:01:42	472
December	0	0	0	0
Total for 2017:	14068	91.54455	00:01:41	28136

Studio 1&2 - 2018

	VIDEOS RECORDED	AVERAGE SIZE OF VIDEOS RECORDED (MB)	AVERAGE TIME RECORDED P/VIDEO	NUMBER OF BUTTON PRESSES
JAN	83	71,51	00:02:37	166
FEB	934	113,72	00:04:06	1868
MAR	2915	80,74	00:01:56	5830
APR	1705	99,04	00:02:37	3410
MAY	1676	325,68	00:06:55	3352
JUN	277	184,37	00:07:01	554
JUL	322	147,05	00:05:37	644
AUG	1547	101,12	00:03:51	3094
SEP	2045	85,92	00:03:16	4090
OCT	1942	70,32	00:02:44	3884
NOV	235	84,54	00:03:21	470
DEC				
TOTAL FOR 2018	13681	1364,01	00:04:01	27174



**INTERVIEW
SETTING**



**MODULE
INTRODUCTIONS**



**PRESENTATION
PRACTICE**



**MODULE
ASSIGNMENTS**

Lessons learned and still learning

- Collaboration
- Responsibility
- Extent of support