Learning from MOOCs – lessons for the future

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“Learning Technology and Groundhog Day”

Terry Mayes, 1995

Seen it all before

It will blow over

“a faculty encamped just north of armageddon”

Robert Zemsky, “Checklist for Change”

Lessons from learning at scale: learners, technologies & directions

- Educational data from MOOCs – pro's & con's
- What have we learned?
- Some technology gaps
- Some new areas to explore

Two types of MOOC research are most common

"Who studies on MOOCs?"

e.g. University of Edinburgh
Items: Demographics, MOOC intentions, satisfaction, prior experiences, future intentions
Survey sources: incomplete (often <20% response rates)
Ethics: explicit

"What do MOOC learners actually do on course?"

e.g. MIT, EPFL
Items: Groups of learner types, stop-out points, use of online tools, mastery, discussion forum behaviours
System data: 100% but only records on-system study
Ethics: ambiguous

“Who studies on MOOCs?“

What have we learned about…. ????

- Age
- Gender
- Country of residence
- Prior educational attainment & subject
- Prior MOOC experience
- Intentions for MOOC study
- Actual MOOC outcomes
- Behaviour on course

All our analyses are openly available at: http://moocs.is.ed.ac.uk

DATA….

1.4 million sign ups - **over 1 million** unique people enrolled

10.5 million video views

1.9 million quizzes submitted

667,967 active learners

353,934 forum posts made

88,845 completion certificates awarded

745+ videos made

218 countries represented

85 academics + **109** TAs involved

38 live course iterations

24 courses

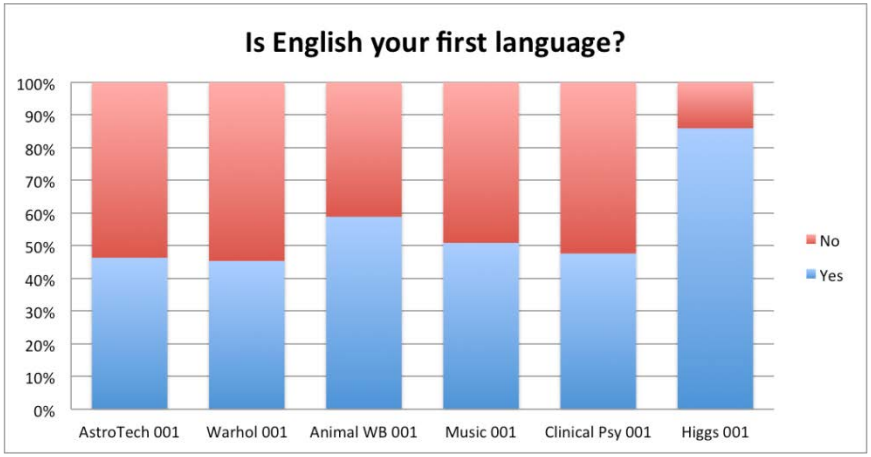
15 academic schools

6 core staff

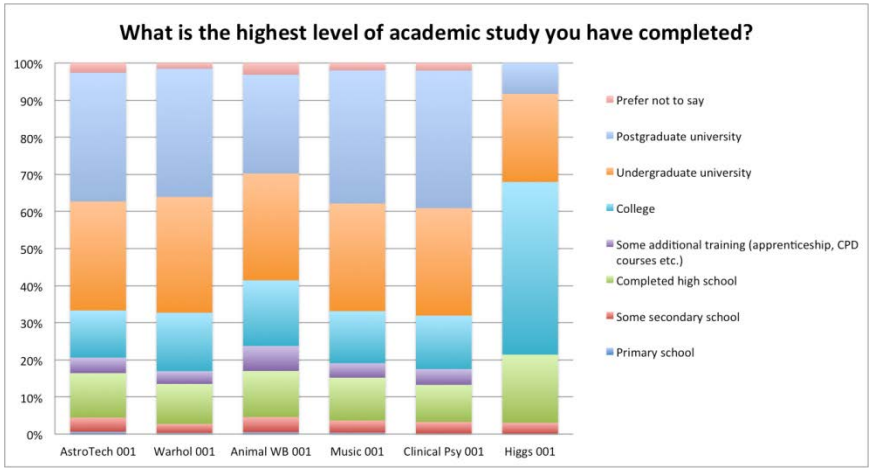
2 platforms

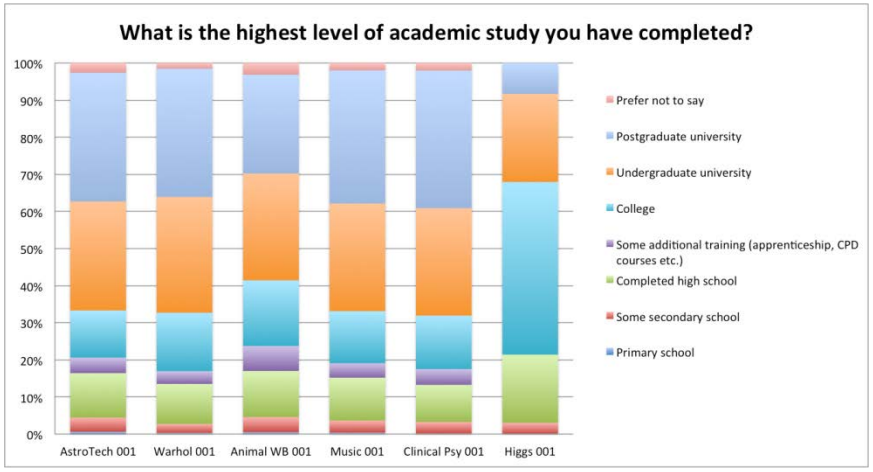
2.5 years

Futurelearn vs Coursera MOOC data

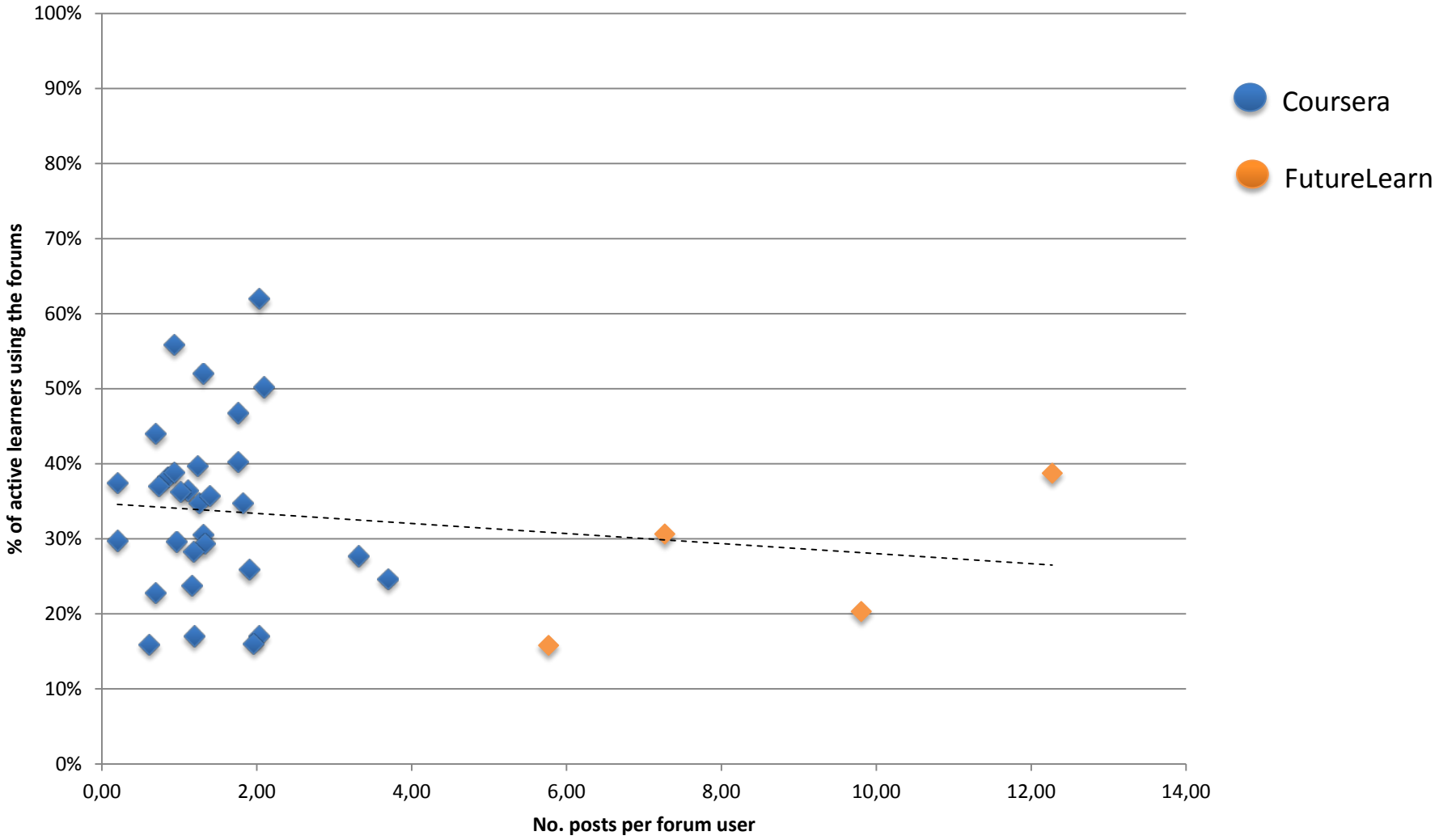


MOOC platform audiences differ appreciably…..it may be both design and the 'maturity stage' of the platform

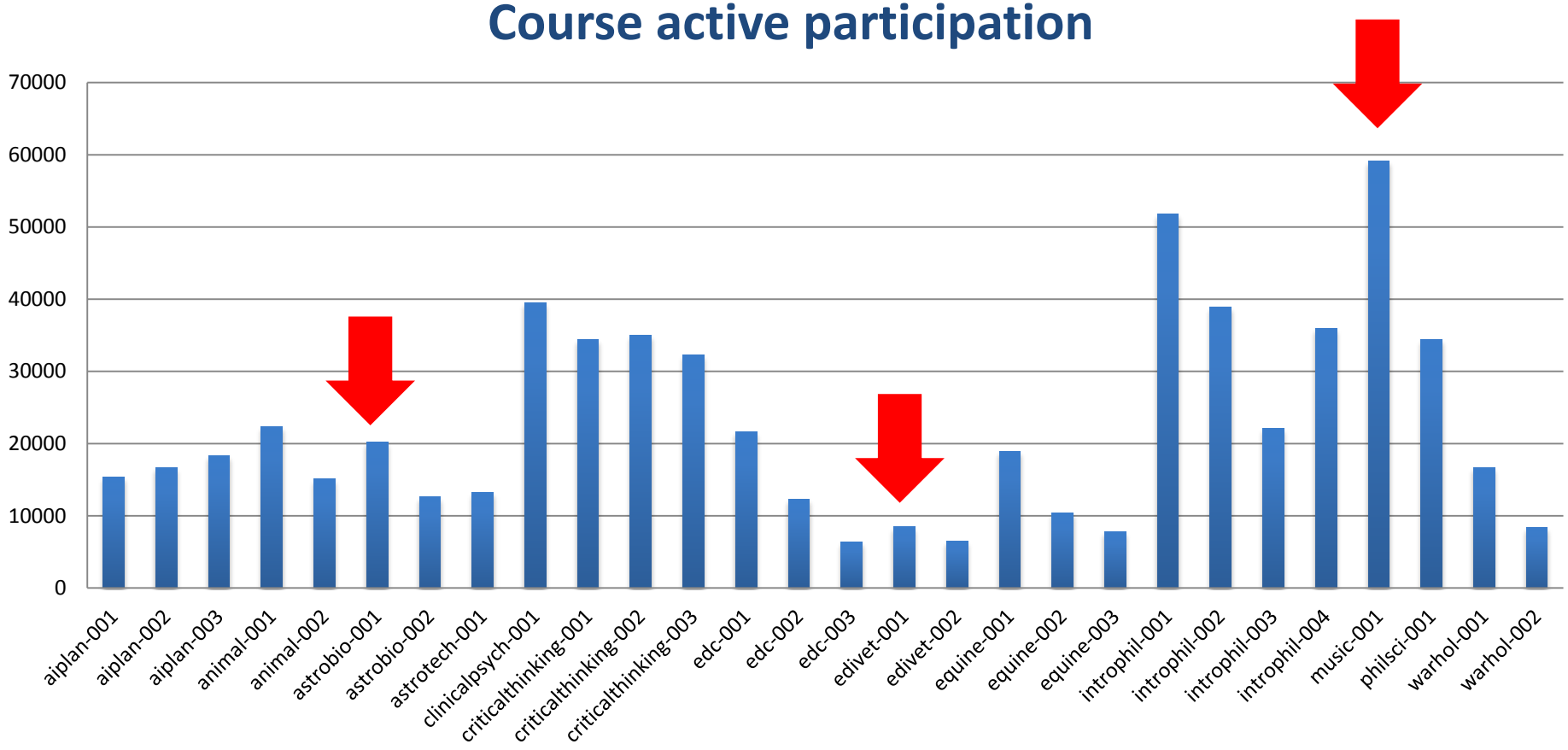




Forum users per course vs. number of posts per forum user



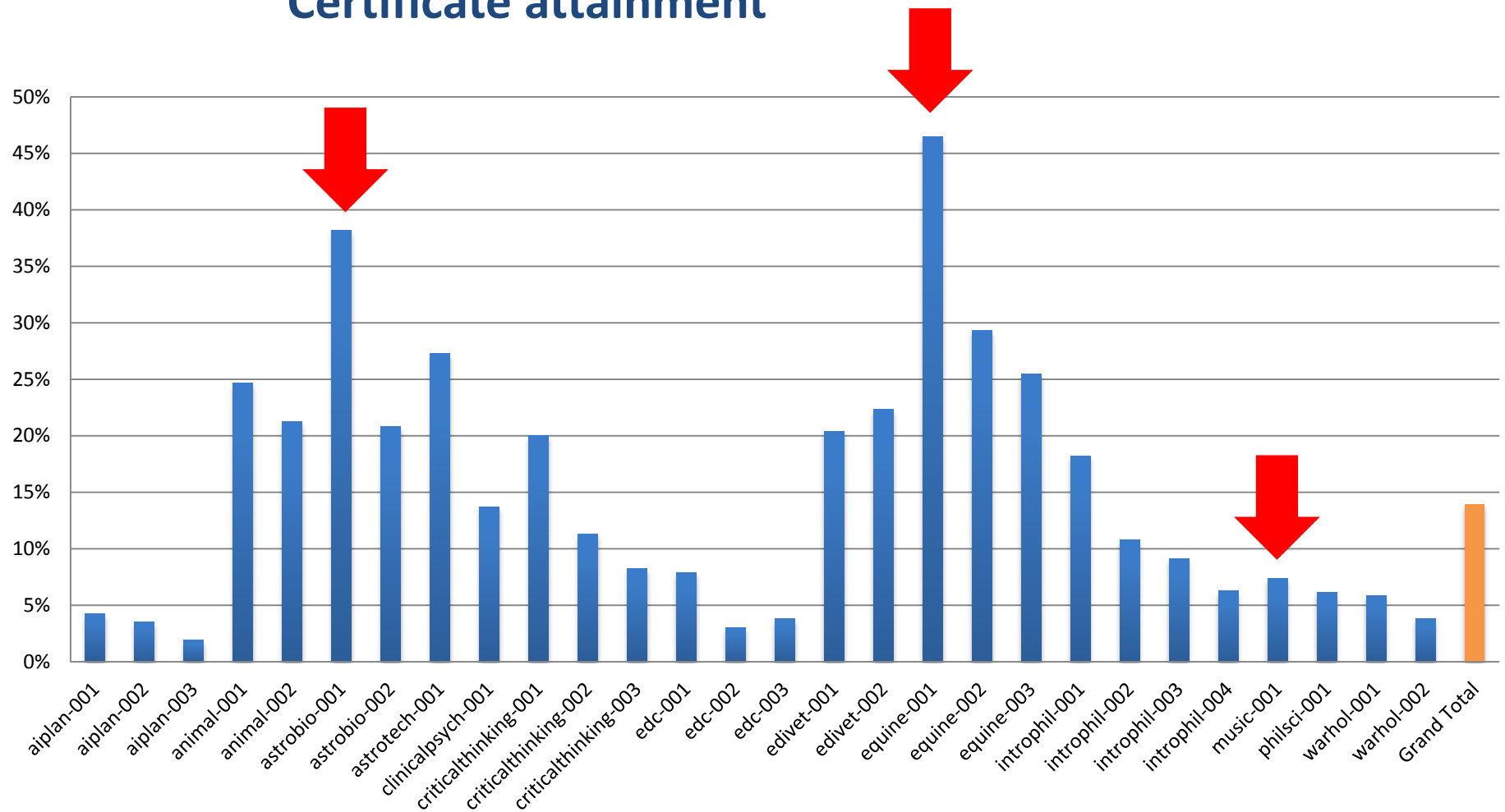
Course active participation



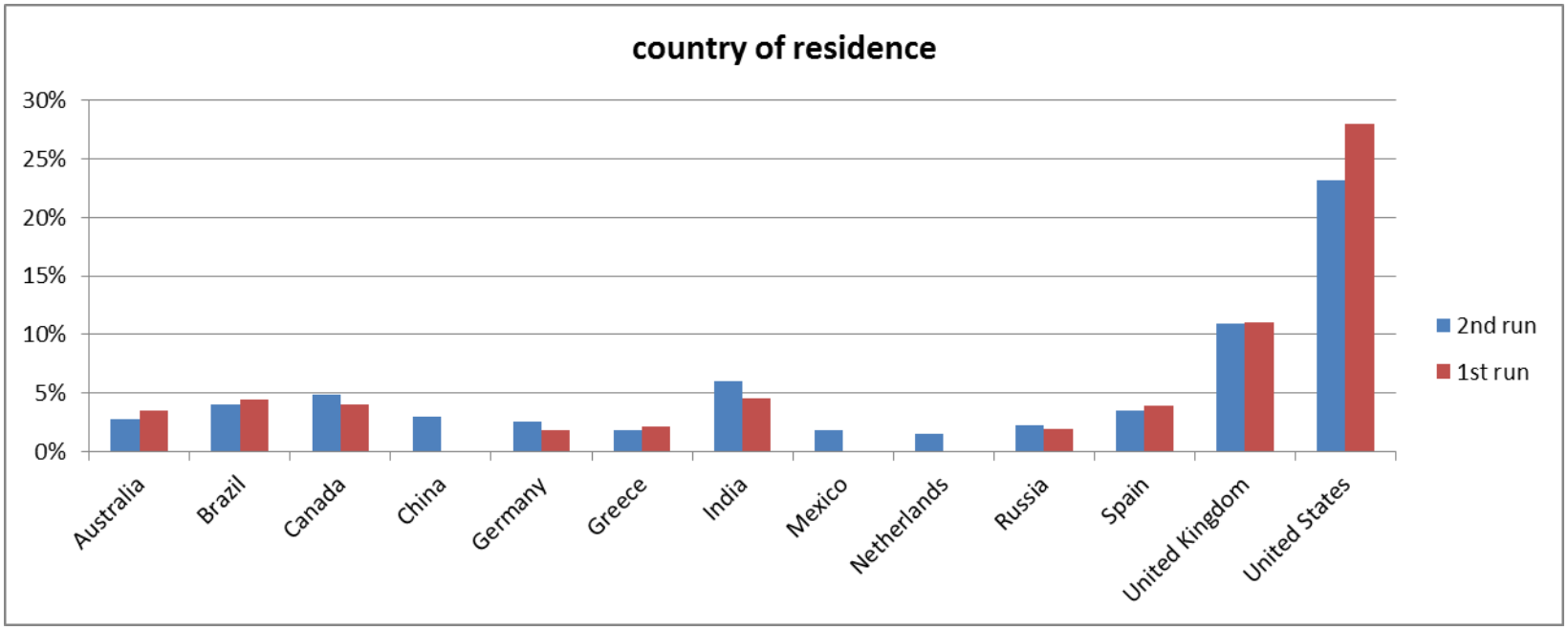
13 courses 28 iterations 1.1 million sign ups

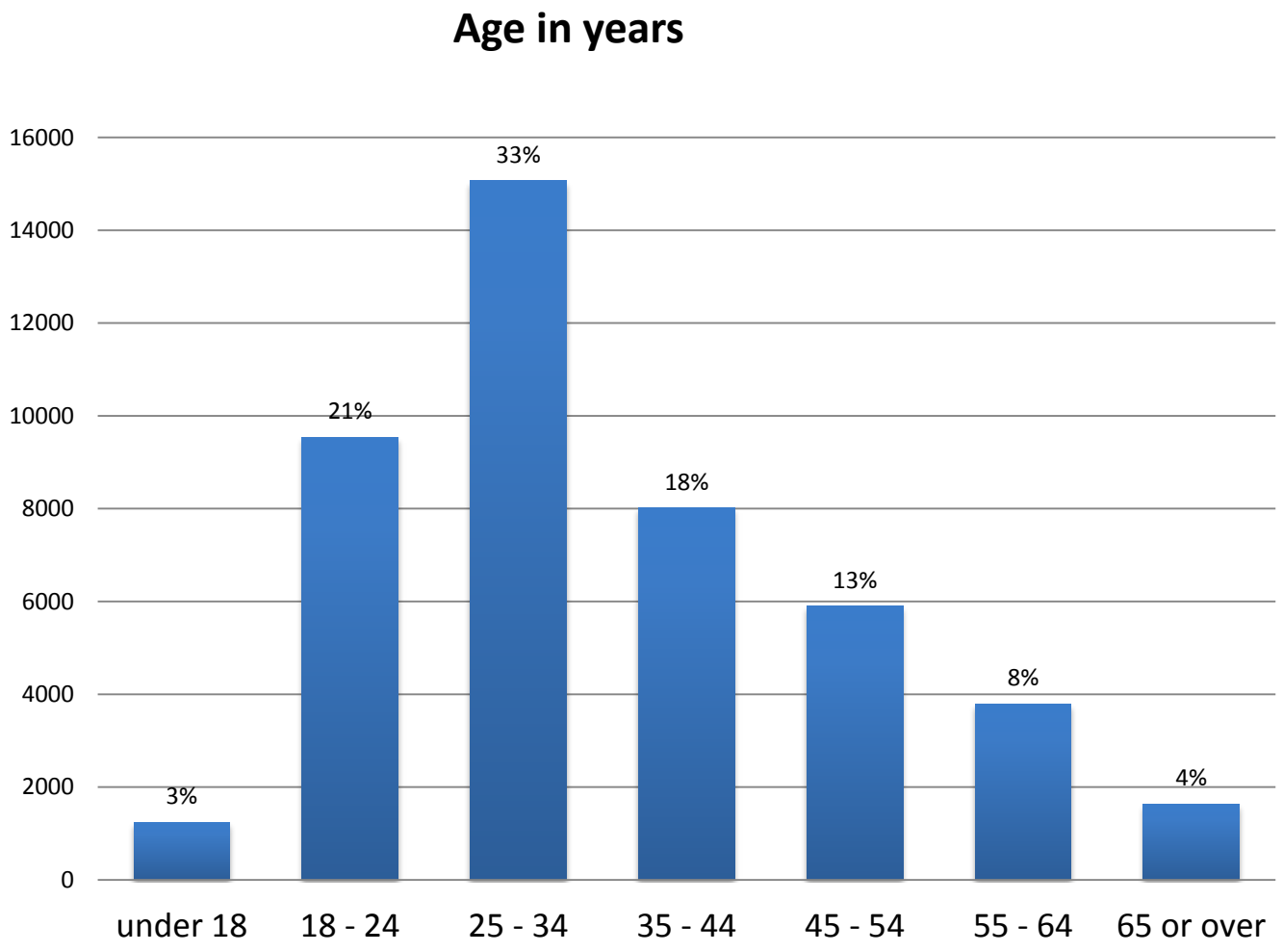
633,521 active learners

Certificate attainment

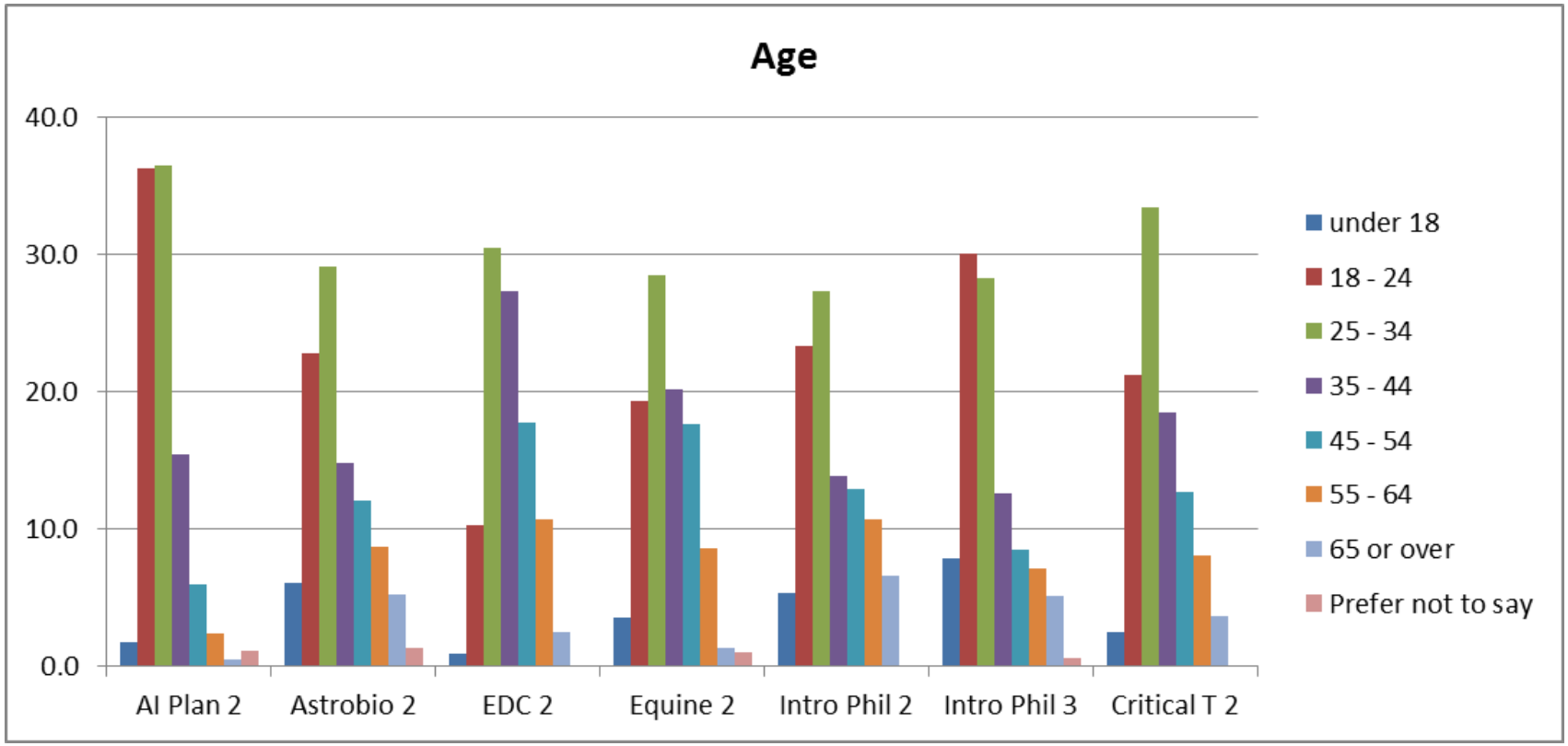


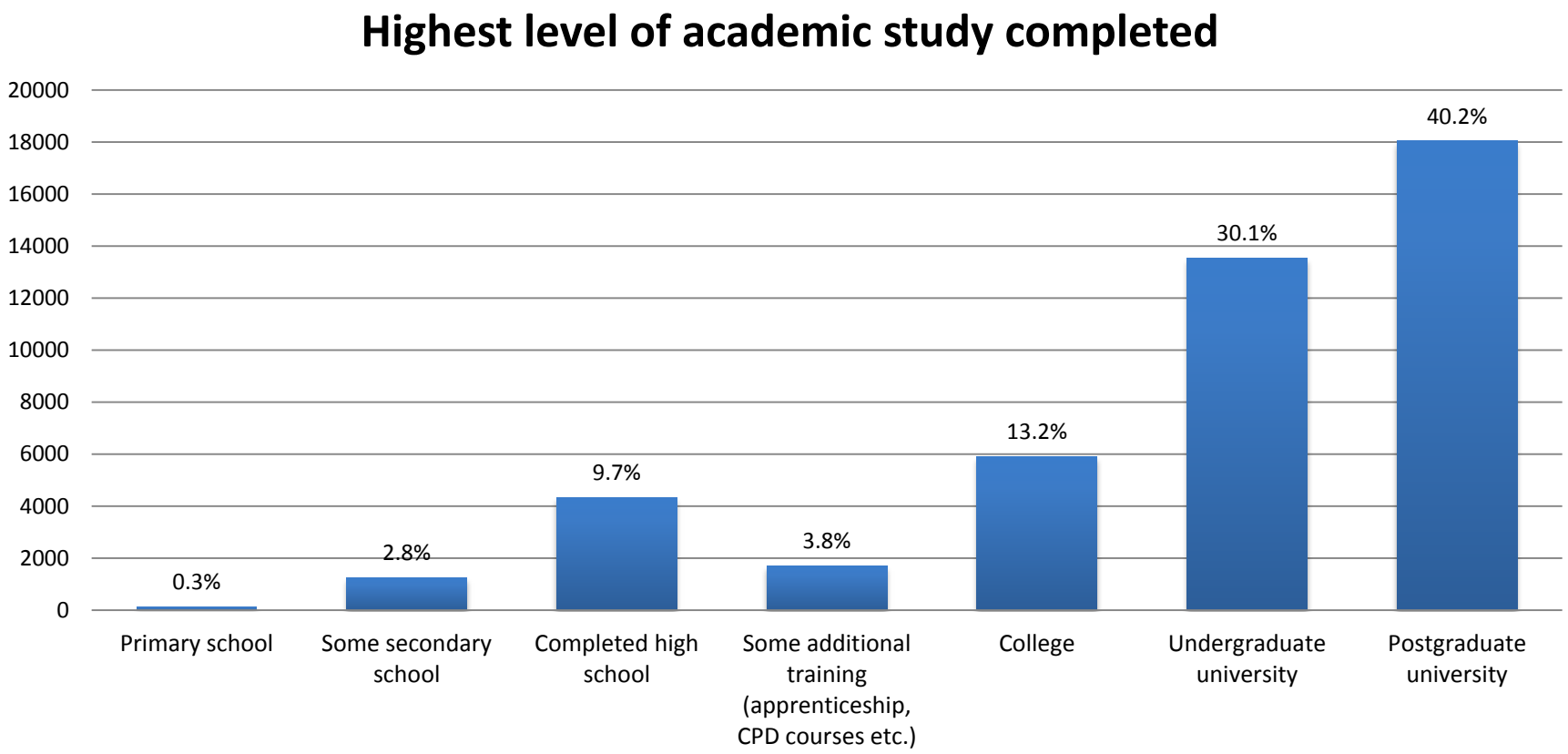
Top countries supplying learners on 6 Edinburgh MOOCs



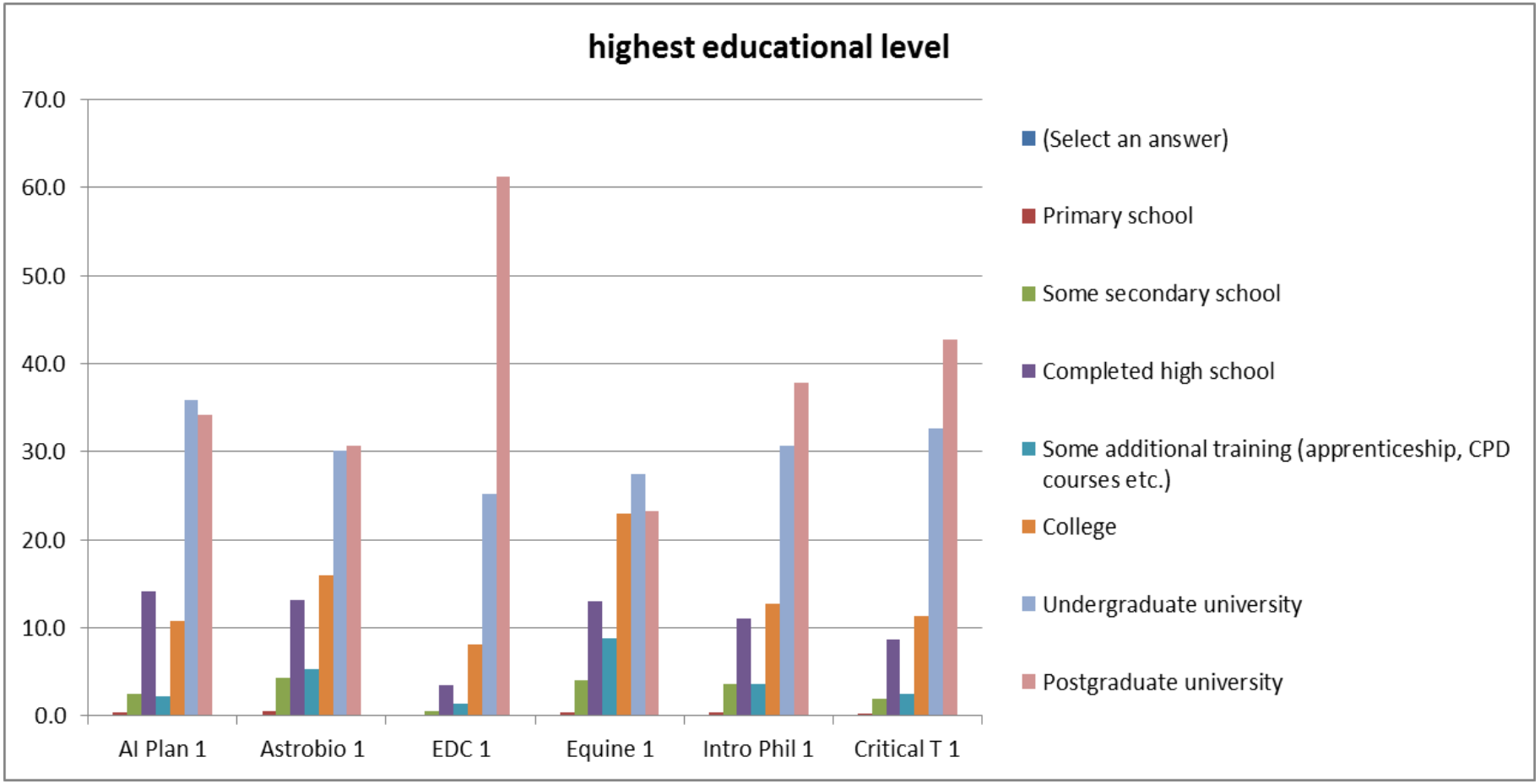

Age in years
16000
14000
12000
10000
8000
6000
4000
2000
0
3%
21%
33%
18%
13%
8%
4%
under 18
18 - 24
25 - 34
35 - 44
45 - 54
55 - 64
65 or over

Age profiles of learners on 6 Edinburgh MOOCs

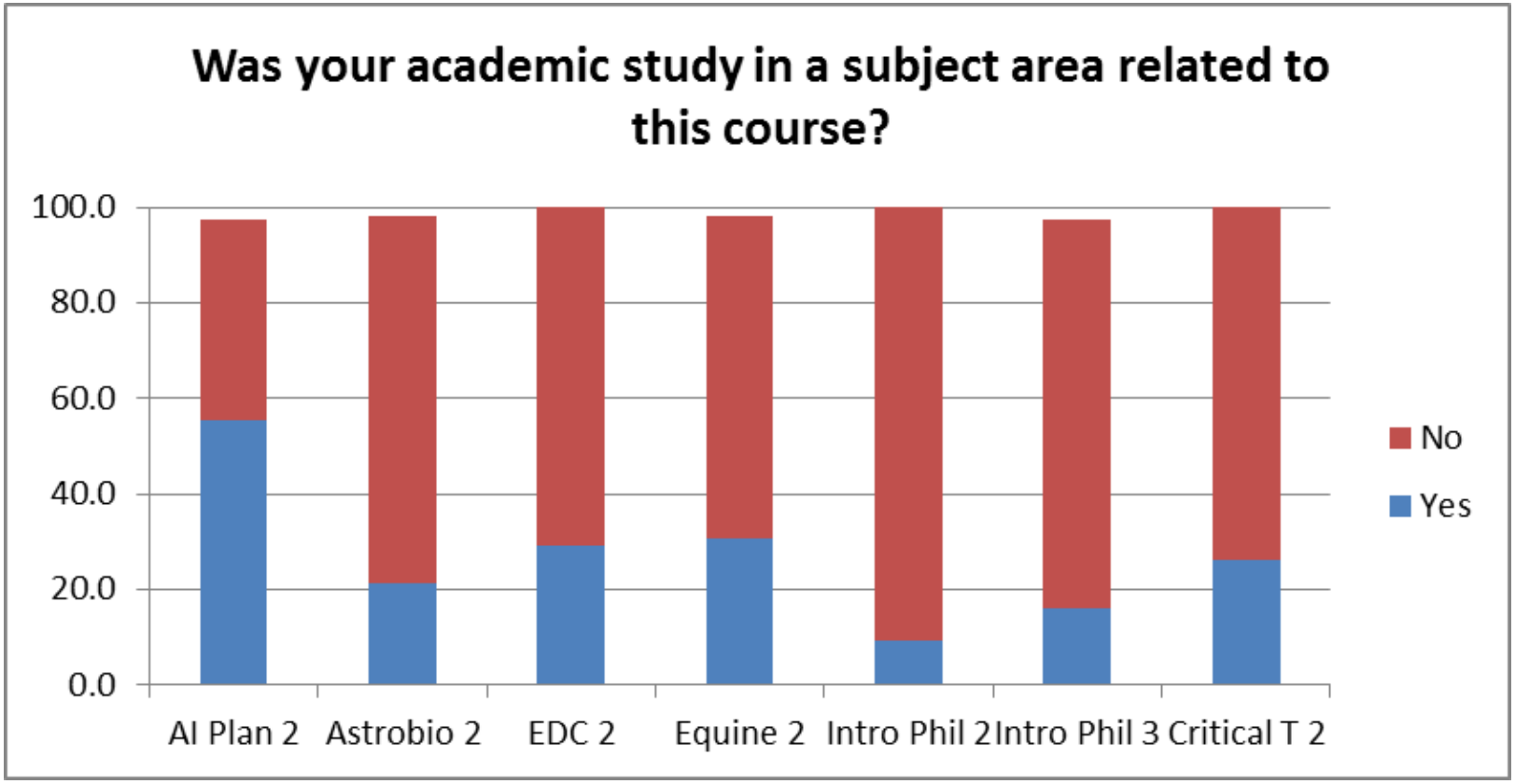



Highest level of academic study completed
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0.3%
2.8%
9.7%
3.8%
13.2%
30.1%
40.2%
Primary school
Some secondary school
Completed high school
Some additional training (apprenticeship, CPD courses etc.)
College
Undergraduate university
Postgraduate university

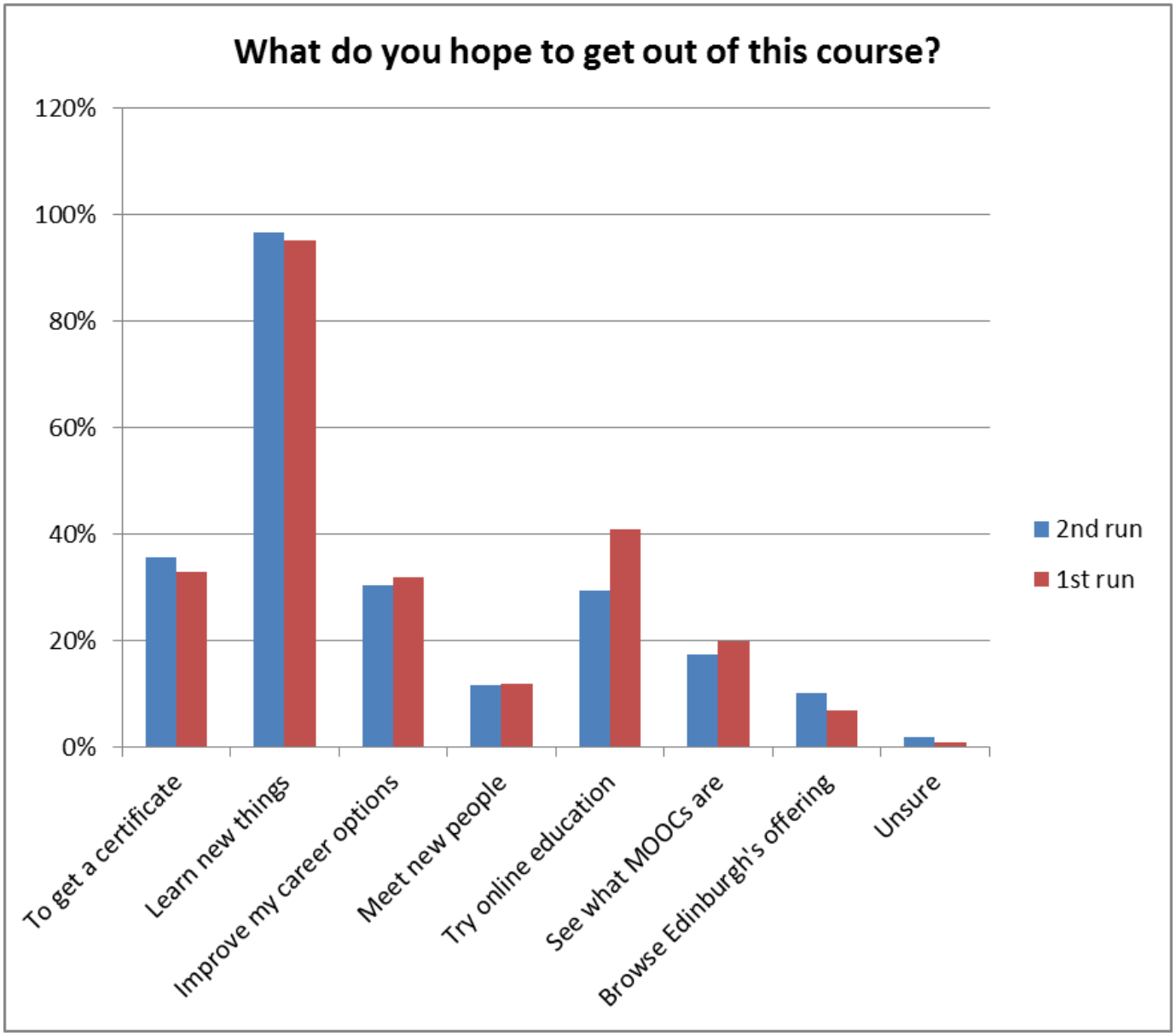
Educational profiles of learners on 6 Edinburgh MOOCs



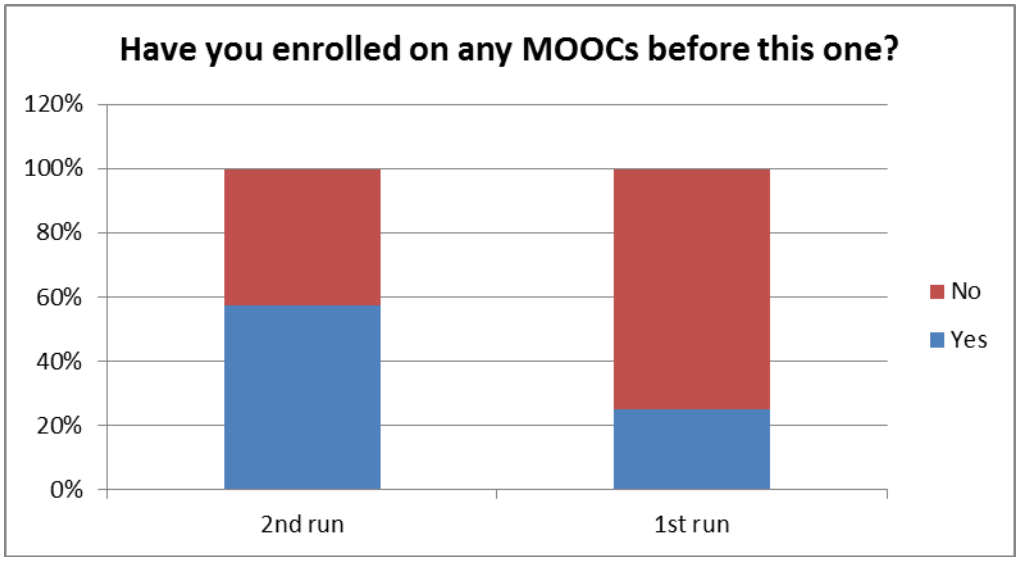
Prior study subject of learners on 6 Edinburgh MOOCs



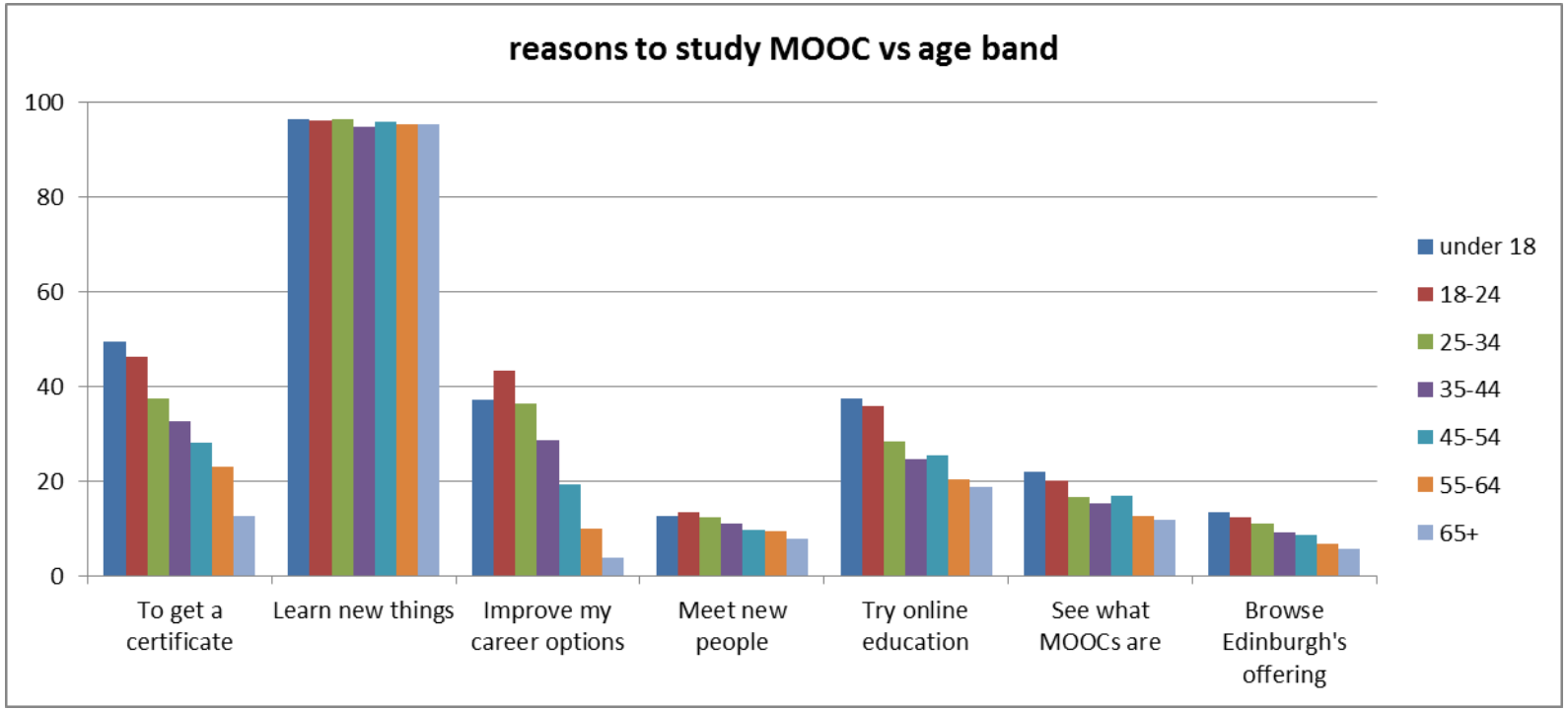
Reasons for learners to study on 6 Edinburgh MOOCs

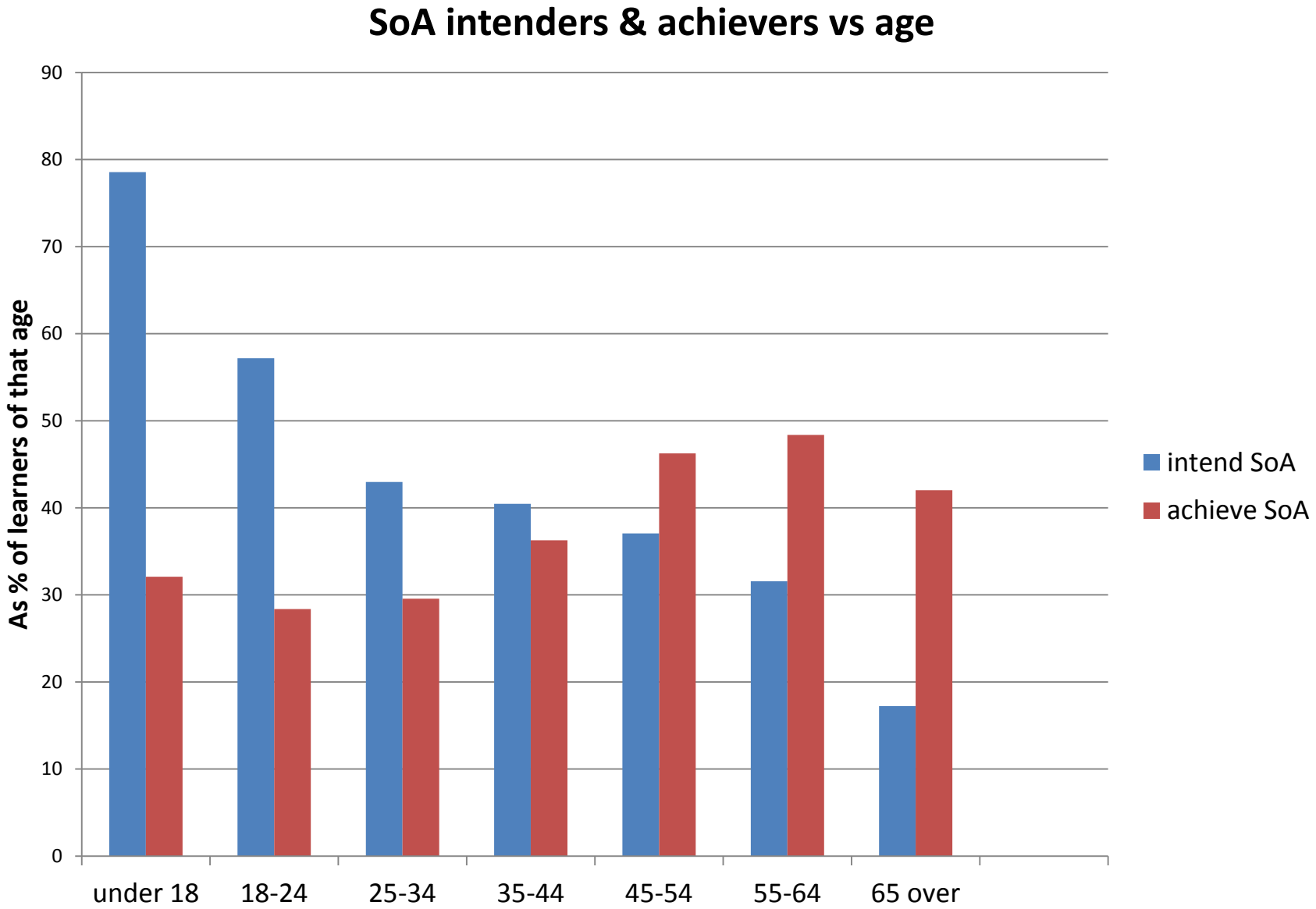


Increasing repeat study of learners on 6 Edinburgh MOOCs



Reasons for studying on a MOOC vs age profiles




SoA intenders & achievers vs age
As % of learners of that age
90
80
70
60
50
40
30
20
10
0
under 18
18-24
25-34
35-44
45-54
55-64
65 over
intend SoA
achieve SoA

In summary:

Mostly adults of working age, well-educated, global with concentrations in developed countries, learning for interest

Demographics changing slowly, can be influenced

Large numbers of learners in the minority groups

Interest in study for career etc rising

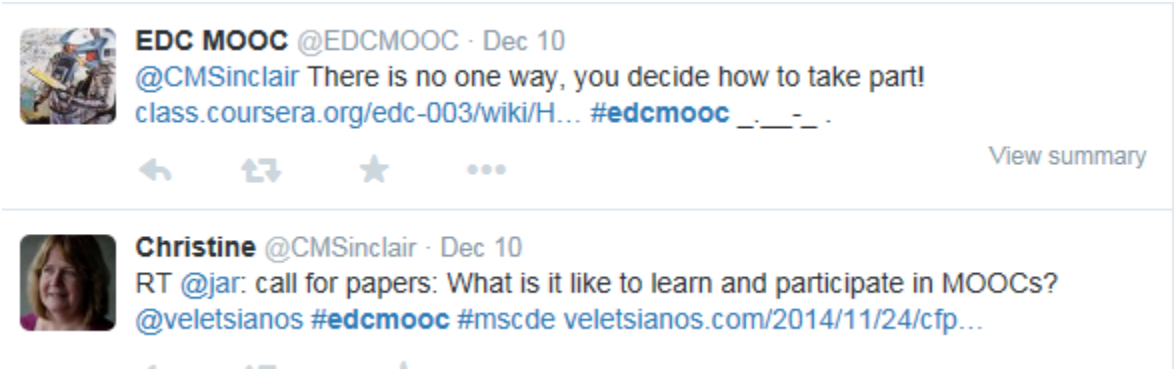
As with all online education, continuous study hard to sustain against external pressures

Where next?

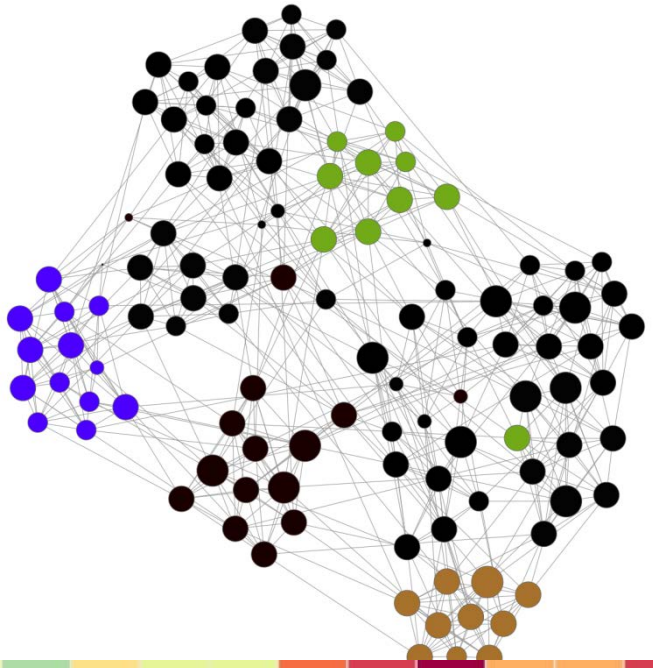
Teacherbots:
addressing mass communications with intelligent answers

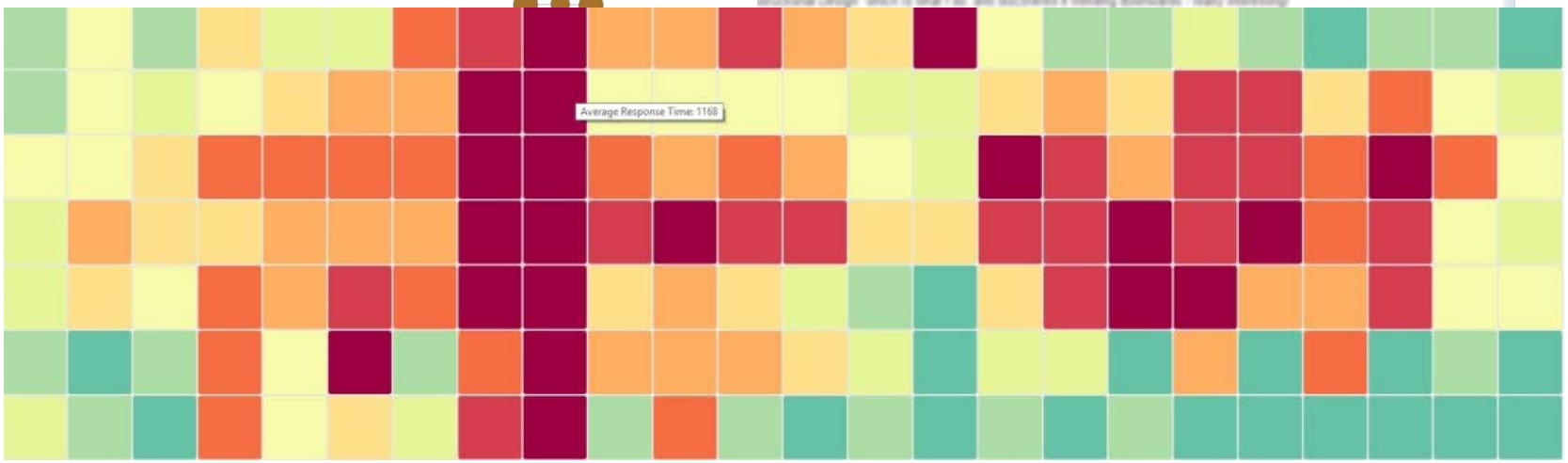
Sian Bayne (2015) 'Teacherbot: interventions in automated teaching', Teaching in Higher Education 20(4): 455-467

Scanning the MOOC twitterspace for key words and phrases – deadline, assignment, lost, unsure…..and giving a teacher pre-prepared response



Dashboard for quality of online discussion groups





MOOCs & cultural backgrounds of learners

coursera = 45% non-US

edX = 33% non-US

FutureLearn = 18% non-UK

رواق

http://www.rwaq.org/

xuetangX.com 学堂在线

MOOC学以致用

免费学习最好的课程！选择感兴趣的领域，加入课堂，开始学习吧！

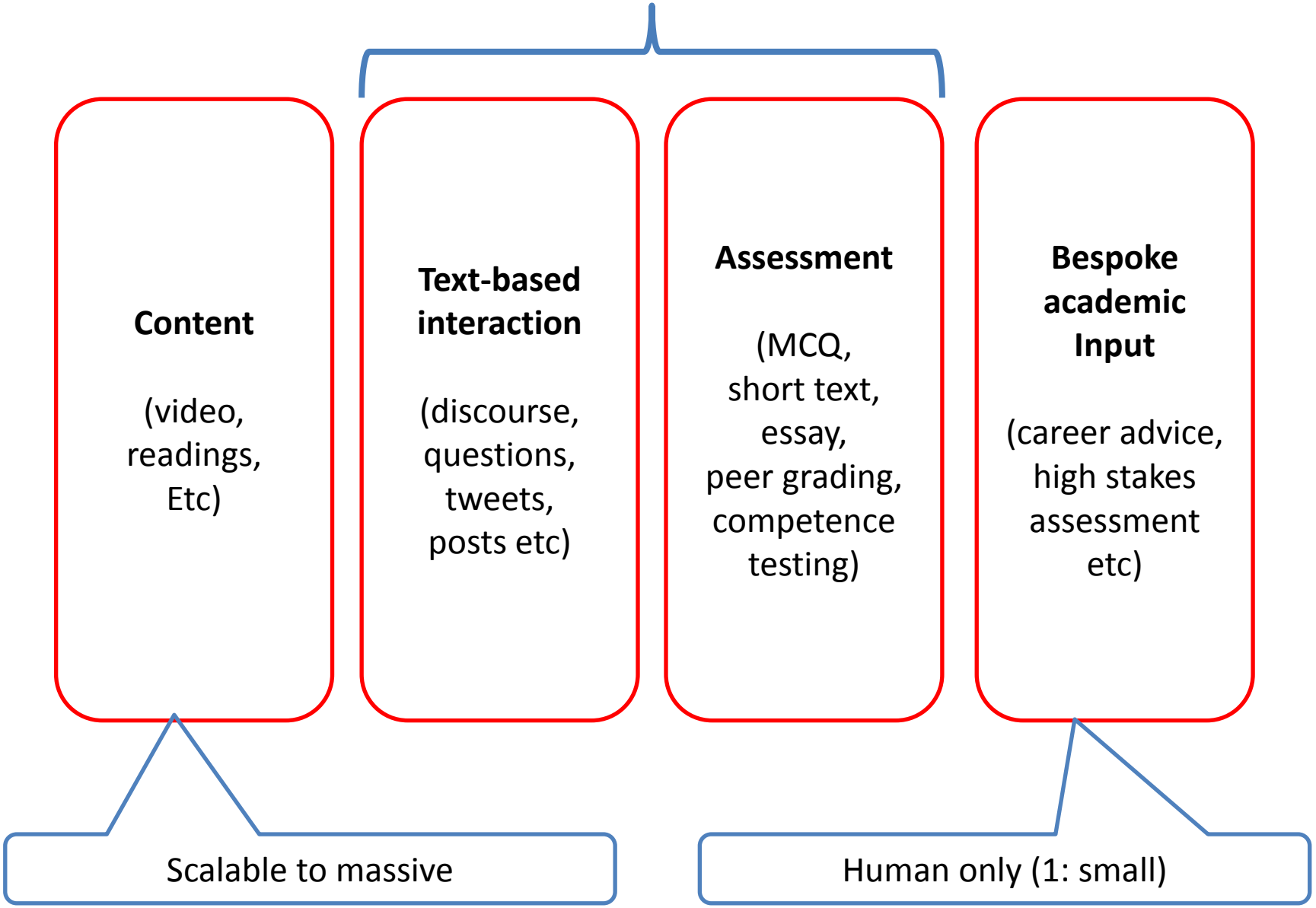
http://www.xuetangx.com/

Potential for scaling up with technology??

Information technology has been extremely consequential in higher education over the last 25 years, but principally in "output enhancing" ways that do not show up in the usual measures of either productivity or cost per student.

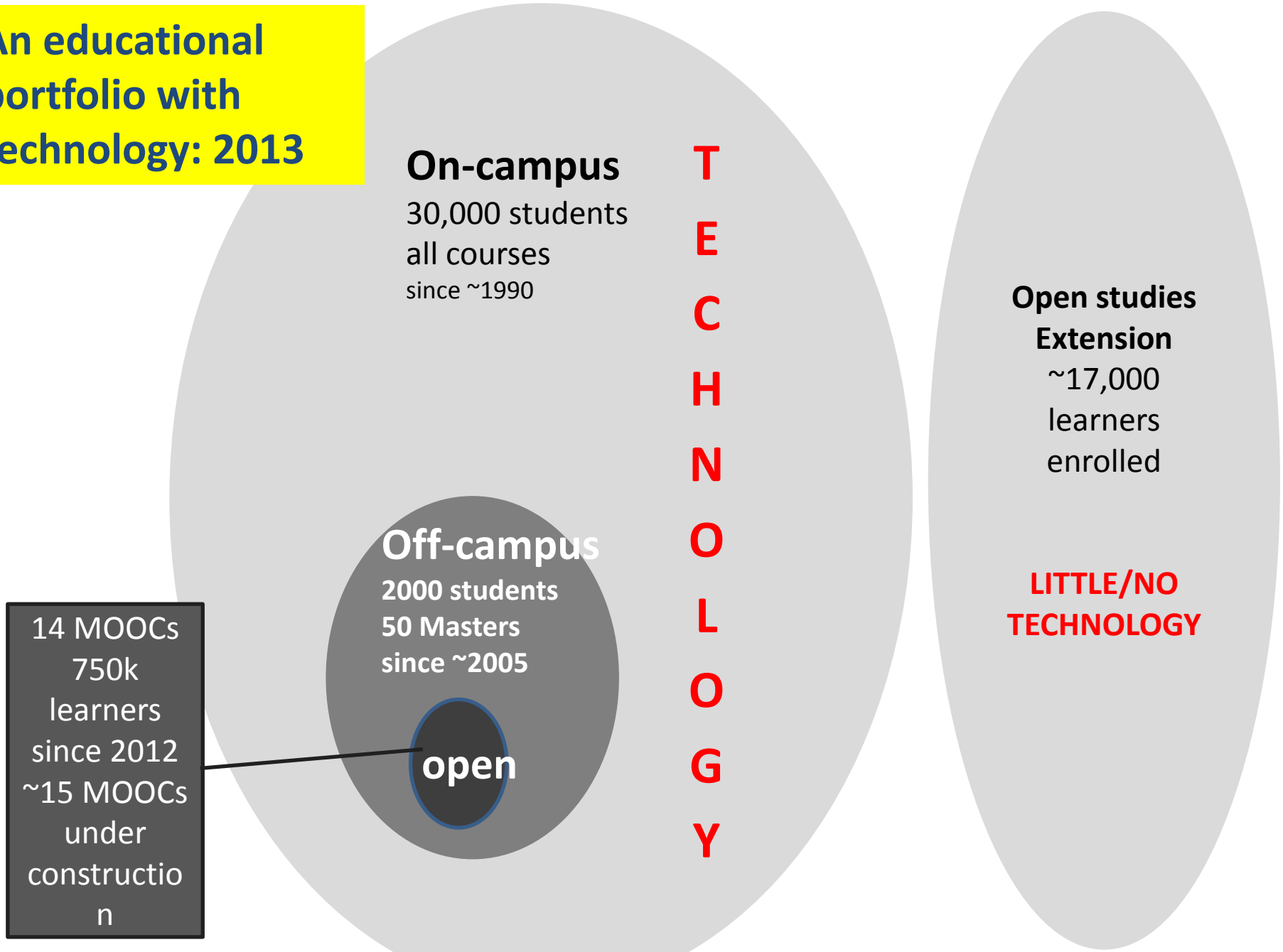
William G Bowen, Tanner Lecture,
Stanford University, October 2012

Potential for scaling up thru technology

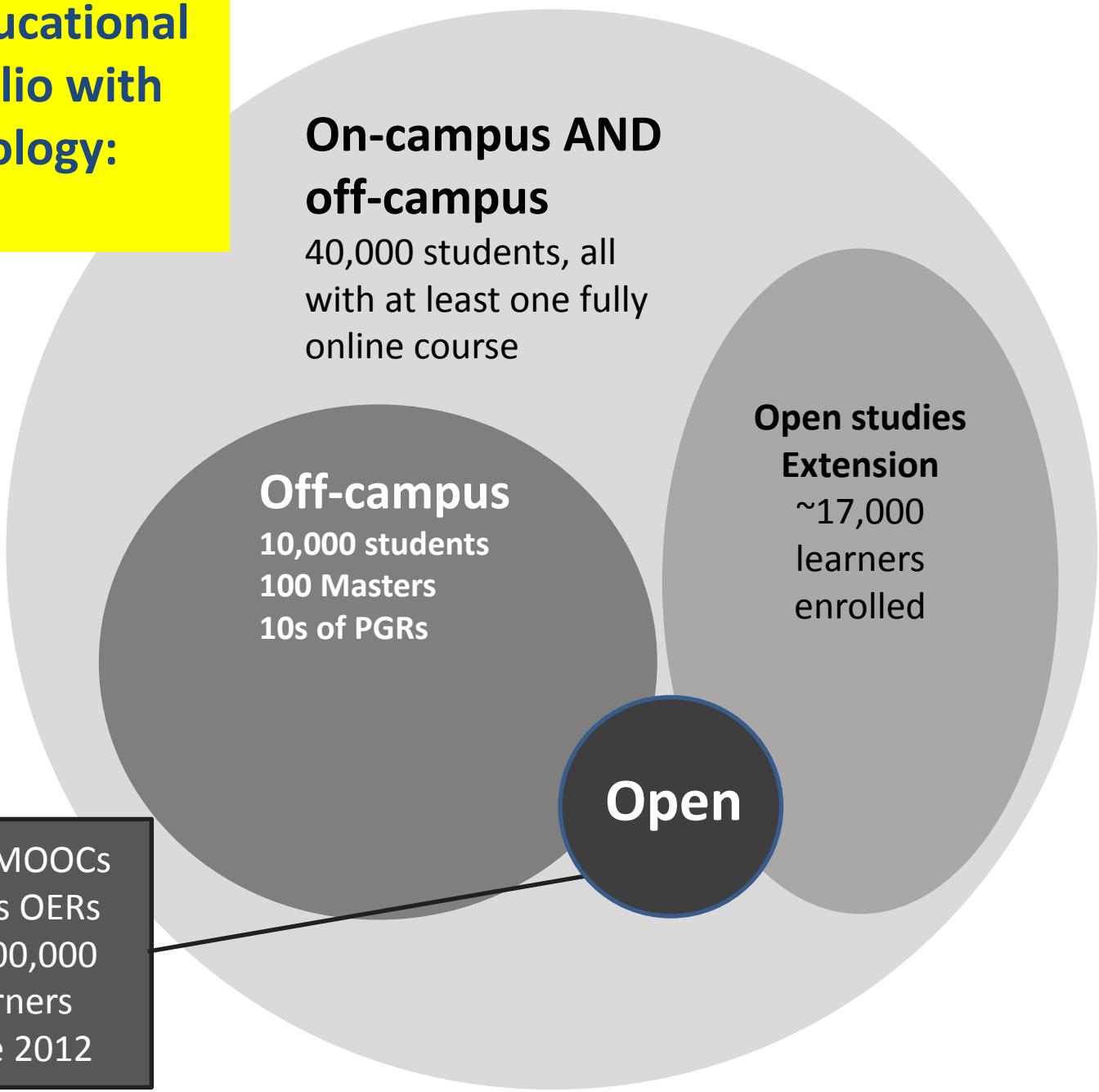


So, where does all this fit with a traditional university re-positioning itself for 2025?

An educational portfolio with technology: 2013



An educational portfolio with technology: c2025



Thank you for listening