Insights from a massive open online course (MOOC) for medical education (2014-2018)

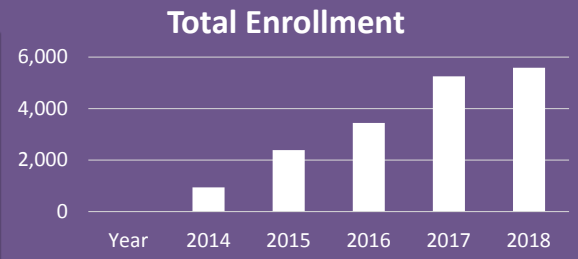
Research Question 1: What are the completion rates seen in a medical education MOOC?
Research Question 2: What is the geographic reach of a medical education MOOC?

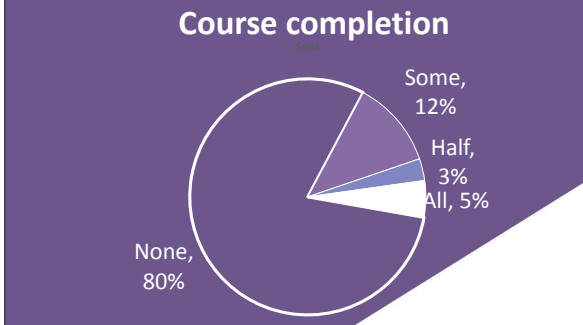
Background
Massive open online courses (MOOCs) are technological innovations have been successfully applied in a wide variety of disciplines to deliver quality online education. These courses are an area of intense focus of educational research. Preliminary studies have shown MOOCs to be effective means of delivering medical education. This study reports data on course completion rates and the geographic reach of a MOOC designed for medical education.

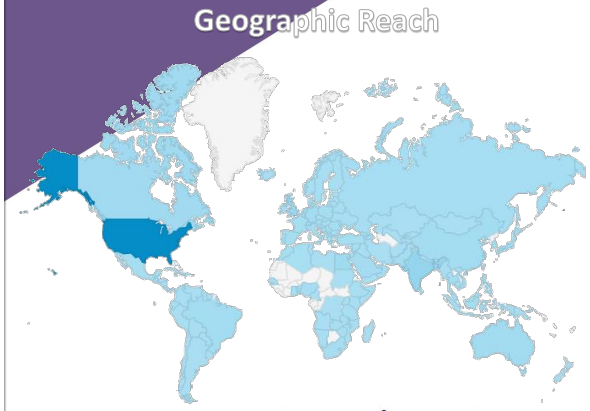
Methods
A online course designed as for a 4th year medical school elective was opened as a free to take MOOC in August, 2014. The course is offered in English with subtitles via Udemy.com. Data regarding completion rates were obtained from the course management interface of the MOOC, data regarding the geographic reach of the course was obtained from Google Analytics. All data is anonymous, aggregated, and studied retrospectively.
The intended course audience was fourth year medical students in the United States, but enrollment was open to all.
Institutional review board review for this study was obtained from the Springfield Committee for Research Involving Human Subjects. This study was determined to not meet criteria for research involving human subjects according to 45 CFR 46.101 and 45 CFR 46.102. Approval reference #: 010636No informed consent was required by the IRB.

Results
MOOC enrollment reached 5,586 students by February, 2018. Completion rates were low (5%), with 8% completing 50% or more of the MOOC. 80% of students did not complete a single course element.
Students enrolled from 161 different countries based on localization by Google Analytics. The most common countries students enrolled from were the United States (46%), India (6%), the United Kingdom (4%), Egypt (2.5%), Canada (2.5%), Australia (2%), China (2%), Germany (1.5%), Brazil (1.5%), and Saudi Arabia (1.5%).

Conclusions
Course enrollment included 5,586 students from 161 different countries. Course completion rates were low, but consistent with other scientific MOOCs designed for high level audiences that are open for public enrollment. These results also show the potential global reach of a MOOC. These factors of high enrollment, low course completion, but global reach are unique challenges for medical educators who deliver content via MOOC technology. Further study is needed to further define the role of MOOCs in medical education.







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