

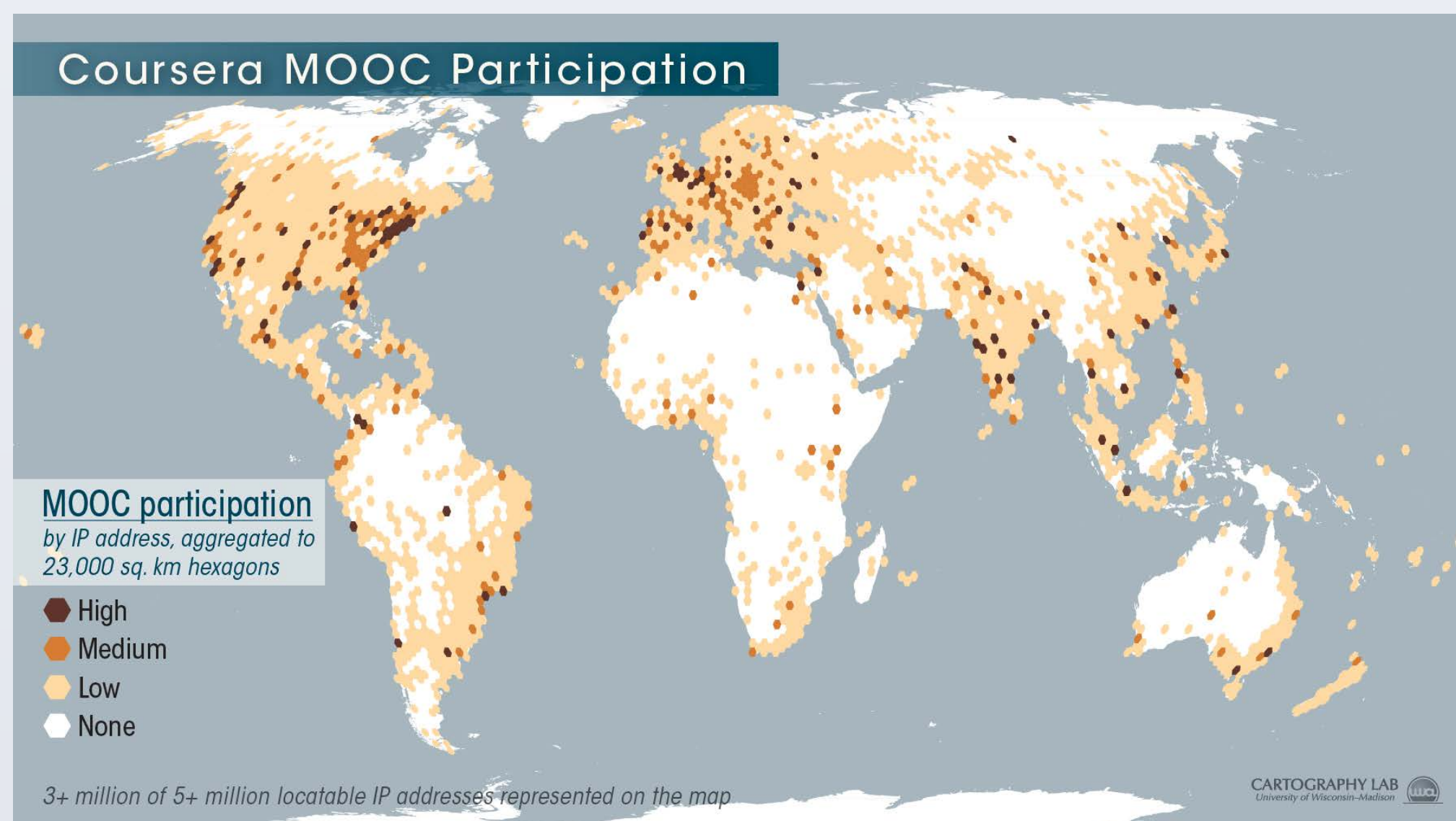
# Massive open online courses (MOOCs) through the lens of women living in Africa

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## Abstract

Massive open online courses (MOOCs) were initially heralded as an avenue for bringing education to previously under-served populations. Quantitative analyses of enrollment numbers shows the phenomenal international reach of these courses, but the details of engagement in MOOCs by citizens of countries with emerging economies have not been well studied. This mixed-methods research project explores the experiences of African women taking MOOCs through the lenses of two disciplines: education research and women's studies. Following an IRB protocol, we examine how women living in Africa distribute among the fields of learning offered in Coursera courses constructed by faculty at Duke University. To this end, researchers review available institutional data from surveys given to the Coursera participants before and after taking Coursera courses in the fall of 2014. Then, based upon the responses from women living in Africa, a stratified sample that further diversifies this subgroup based upon, age, educational background, and income identifies interview candidates. Semi-structured interviews will be conducted in the spring, 2016 semester via Skype. The audio-recorded interviews will be transcribed, and the text will be analyzed to find emerging themes using the software program NVivo. We expect to report preliminary results from these analyses with the goal of stimulating discussion among conference participants. We will reflect upon the current use of the courses in this context and engage the audience in discussions towards finding better ways to implement MOOC learning for the under-served communities of African women.



## Objective

The African continent has the second largest population of all the continents. This being said, within Coursera courses African students make up the smallest percentage of students. The mission of Coursera is to provide “universal access to the world’s best education”. Therefore the demographics of the world should reflect within these online classes. Through this research the hope is to increase the amount of participants for the this subset of people, African women. By knowing their motivations, barriers, and limitations, there is potentially a way of reaching more students.



## The number of African Students taking Duke Coursera Course

course	Freq.	Percent	Cum.	
204	72	2.7	2.7	Genetics and Evolution
304	153	5.74	8.44	Think Again
305	103	3.86	12.31	Think Again
403	91	3.41	15.72	Astronomy
604	87	3.26	18.99	Human Physiology
703	192	7.2	26.19	English Composition
903	143	5.37	31.56	Medical Neuroscience
1103	8	0.3	31.86	Sports and Society
1702	737	27.65	59.51	Data Analysis
1703	430	16.14	75.65	Data Analysis
2002	24	0.9	76.55	Brain and Space
2003	17	0.64	77.19	Brain and Space
2301	23	0.86	78.05	Responding to 9/11
2601	92	3.45	81.5	Advertising and Society
2602	108	4.05	85.55	Advertising and Society
2701	107	4.02	89.57	Tropical Parasitology
3001	13	0.49	91.26	Visual Perception
3002	51	1.91	93.17	Visual Perception
3401	48	1.8	94.97	Chemistry Part 1
3402	46	1.73	96.7	Chemistry Part 1
3501	19	0.71	97.41	Chemistry Part 2
3601	27	1.01	98.42	Bioelectricity Part 1
3801	42	1.58	100	Foundational Neuroscience
Total	2,665	100		

## Methods

- First, the lead student investigator reviewed available data from the pre and post survey given to the students before and after taking Coursera courses in the fall of 2014.
- Based upon the responses from women living in Africa, the data manager sent out an email to the female students who indicated they would be interested in a follow-up research study and ask them to complete the demographic information.
- Following the completion of the demographic information survey, the lead student investigator will select a stratified sample that diversifies the interviewees based upon, age, educational background, and income.
- Selected interviewees will be notified via email and if still interested, schedule a Skype phone interview with the lead student investigator. These semi structured interviews will be conducted during the spring, 2016 semester.
- Each interview will last 30-45 minutes and will be audio-recorded. The interviewer will inform the participant of the purpose of the research.
- Transcripts will be prepared and analyzed by the research team via NVivo to find emerging themes in the participant responses.

## Resources

Bureau, Population Reference. 2014 World Population Data Sheet. 2015. <http://www.prb.org/publications/datasheets/2014/2014-world-population-data-sheet/data-sheet.aspx>. February 2016.

Coursera. 2016. <https://www.coursera.org/about/>. February 2016.

Old, Kris. "Mapping Coursera's Global Footprint." Inside Higher ed (2013). <https://www.insidehighered.com/blogs/globalhighered/mapping-courseras-global-footprint>.

Photo Credit: Tyler Ann Johnson, African woman watching video on her mobile phone.