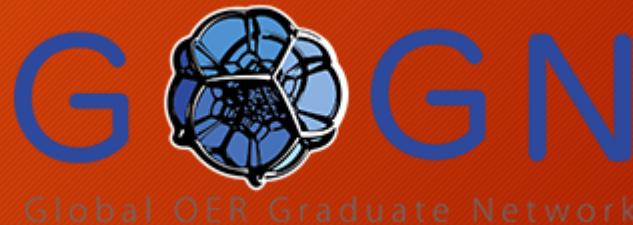


A Comparative Study Of Indian Learners In Massive Open Online Courses(MOOCs)

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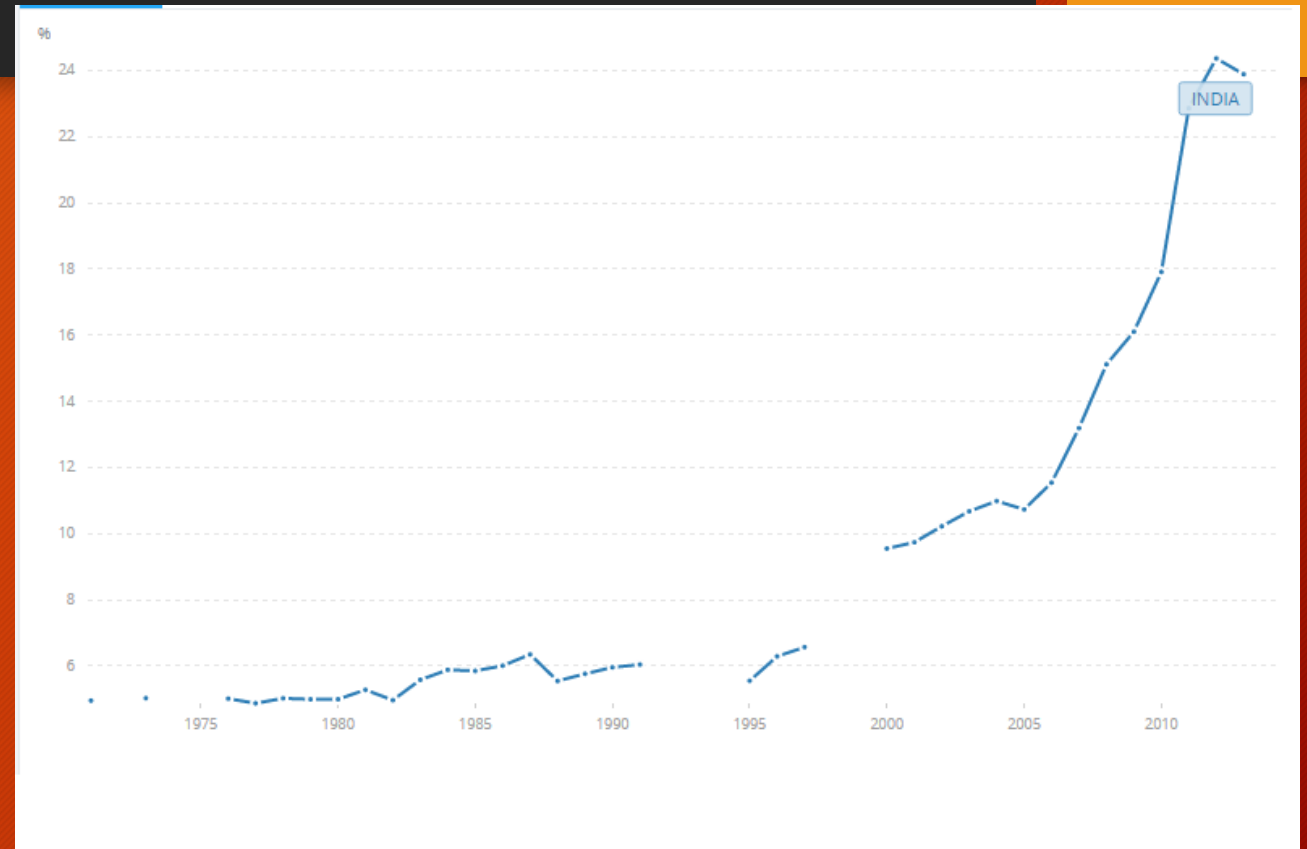


Presentation Outline

- The Indian Context
- The Need for Research
- Research Questions
- Demographic Findings
- Motivation and Challenges
- Emerging Themes from Interviews

The Indian Context

- By 2020, India will have the largest university-age population in the world (18-23)
- Currently the third largest higher education system - over 750 universities and 35,000 colleges
- Gross Enrollment Ratio (GER) in higher education 23.6% in 2015
- Government target is 30% by 2020



UNESCO Institute of Statistics

<<http://data.worldbank.org/indicator/SE.TER.ENRR?end=2013&locations=IN&start=1971&view=chart>>

The need for research

- Research into non-Western MOOC users currently lacking
- According to Veletsianos and Sheperdson (2016), only 8% of empirical MOOC research came out of Asia - 5.4% from China, **and less than 1% from India.**
- There is an increasing use of learning analytics and log-data to try and make sense of learning in MOOCs
- There is a need for more studies into the learner experience, and the learner voice, to try and make sense of some of the findings from quantitative studies.
- Most importantly, there is a need to explore the ways in which MOOCs are currently being used by learners in the developing world.

Research Questions

- What are the demographics, motivations and experiences of Indian learners in MOOCs?
- What are the differences in demographics, motivations and experiences of Indian learners in Western and Indian MOOC platforms?
- What role are MOOCs currently playing, and what role can they potentially play, in the Indian context?

NPTEL

The screenshot displays the NPTEL Online Certification website. The header is purple with the NPTEL logo and navigation icons. The main content area is blue and titled "List of Ongoing Courses (104)". Below the title is a toggle switch for "Upcoming/Completed". A filter bar shows "10 HOUR - (28)", "20 HOUR - (58)", and "30 HOUR - (18)". The course list is a grid of 12 items, each with a thumbnail, title, professor, and institution.

Course Title	Professor	Institution
Audio System Engineering	Prof. Shyamal Kumar Das Mandal	IIT Kharagpur
Basic Building Blocks of Microwave Engineering	Prof. Amitabha Bhattacharya	IIT Kharagpur
Basic Concepts of Modal Logic	Prof. AVR Sarma	IIT Kanpur
Biology for engineers and other non-biologists	Prof. Surajshankar, Prof. Madhulika Dixit	IIT Madras
Complex Network : Theory and Application	Prof. Animesh Mukherjee	IIT Kharagpur
Curves and Surfaces	Prof. Sudipta Dutta	IIT Kanpur
Earth Sciences for Civil Engineering		
Economics of IPR		
How the Brain Creates Mind	Prof. Alok Bajpai	
Introduction to Cryptology	Prof. Sugata Gangopdhyaya	
Introduction to Indian Art - An appreciation	Prof. Soumik Nandi Majumdar	
Organo Metallic Chemistry	Prof. Debabrata Maiti	

- National Programme on Technology Enhanced Learning - Started as an OER repository along the lines of MIT-OCW
- 922 Courses, mostly in Engineering and Technology - All under Open License
- NPTEL MOOCs - 225 Courses
- 20% of degree credits can be taken through MOOCs

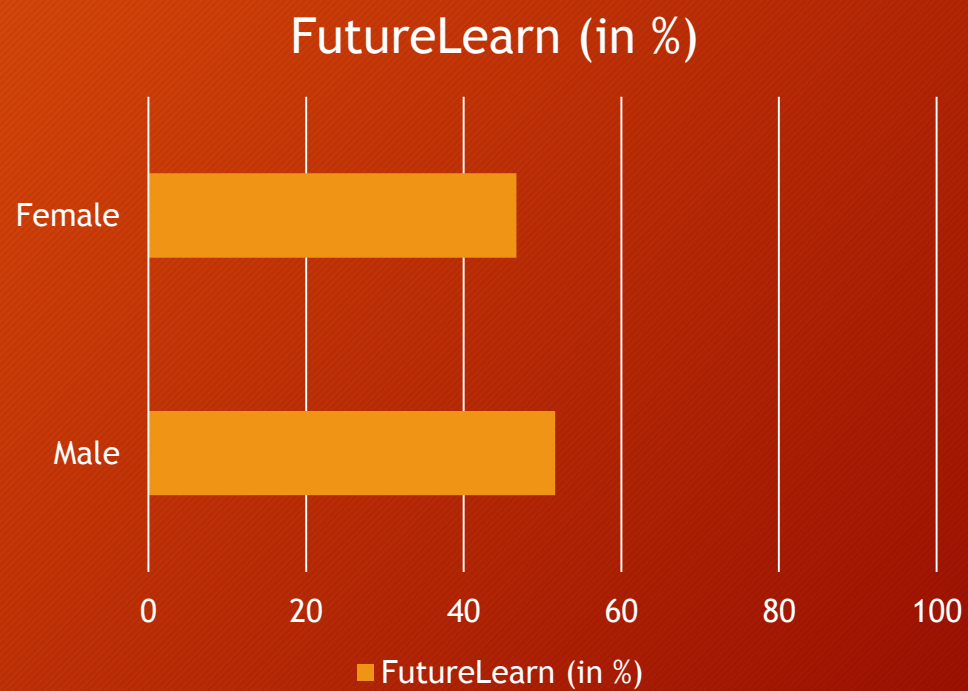
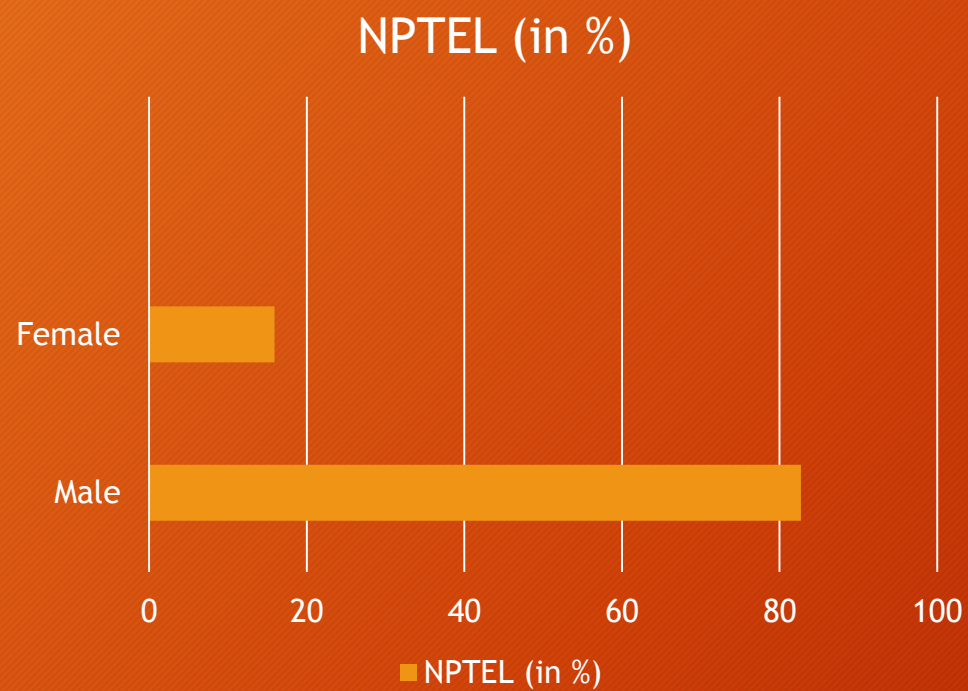
Research Design

- THREE STAGE MIXED-METHODS STUDY
- Stage 1: Pilot interviews with eight participants
- Stage 2: Survey on learner demographics, motivations, and experiences (n=2375)
- Stage 3: Semi-structured interviews with Indian learners on global MOOC platform (FutureLearn) and Indian MOOC platform (NPTEL) (n=30)

SURVEY FINDINGS - RESPONSES

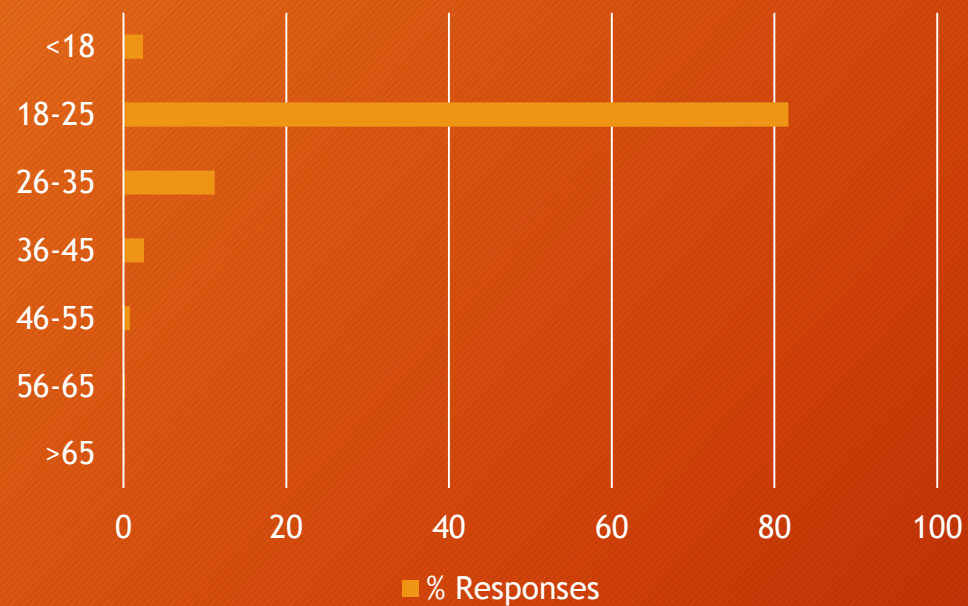
Site	Number of Responses
NPTEL	2009
FutureLearn	364
Total	2375

DEMOGRAPHICS - GENDER

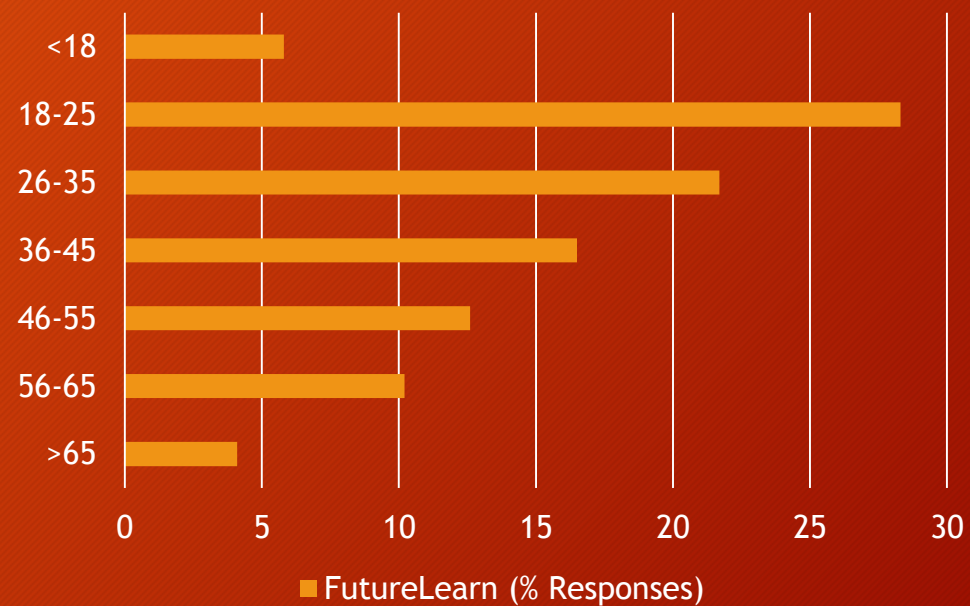


DEMOGRAPHICS - AGE

NPTEL (% Responses)

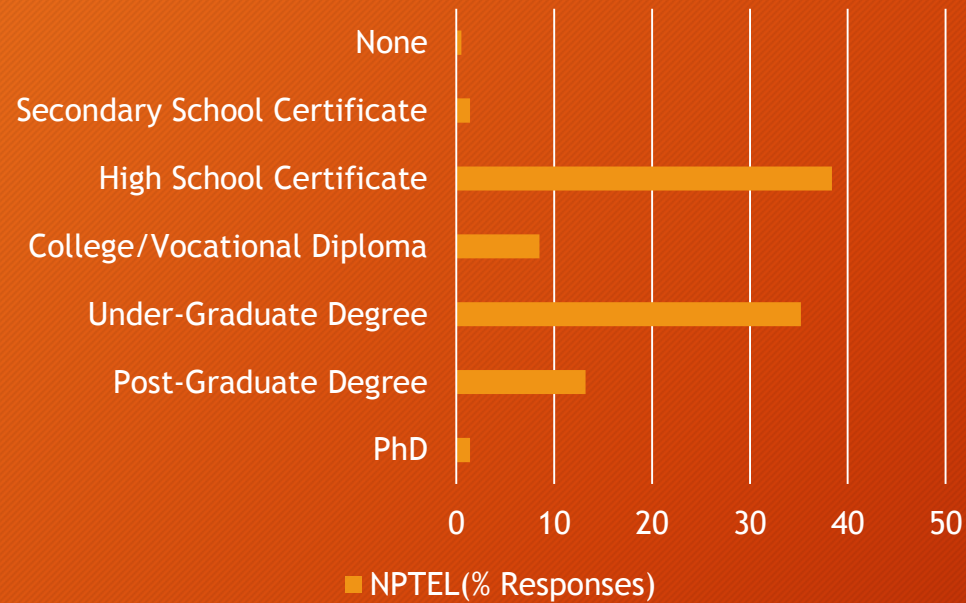


FutureLearn (% Responses)

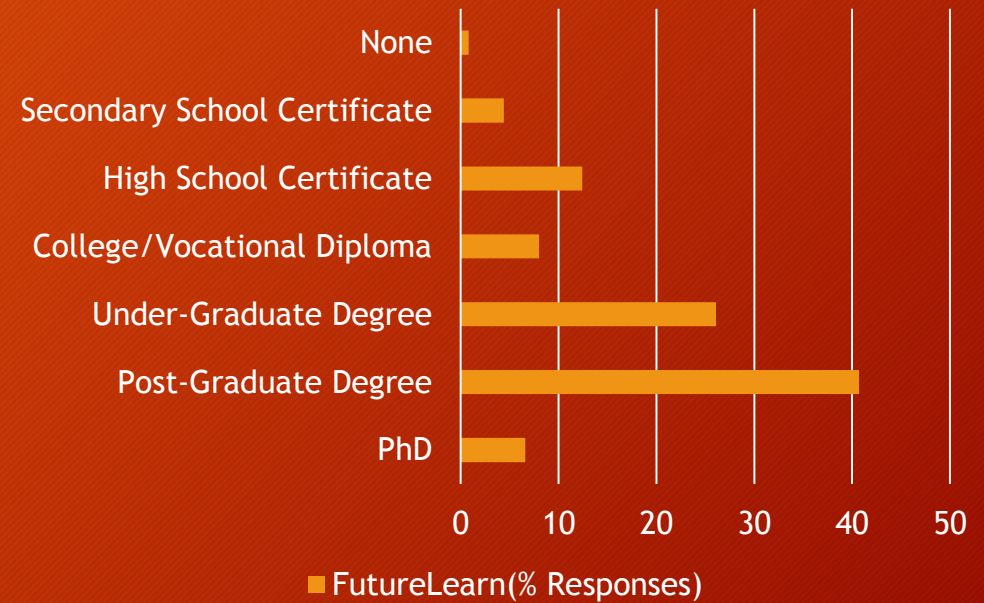


DEMOGRAPHICS - EDUCATION LEVEL

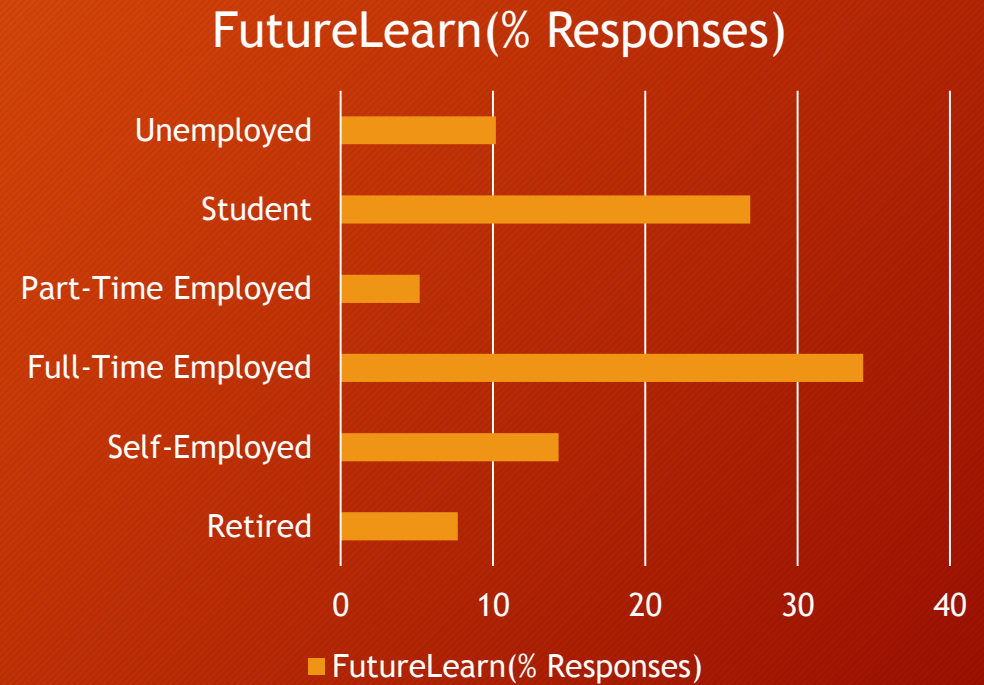
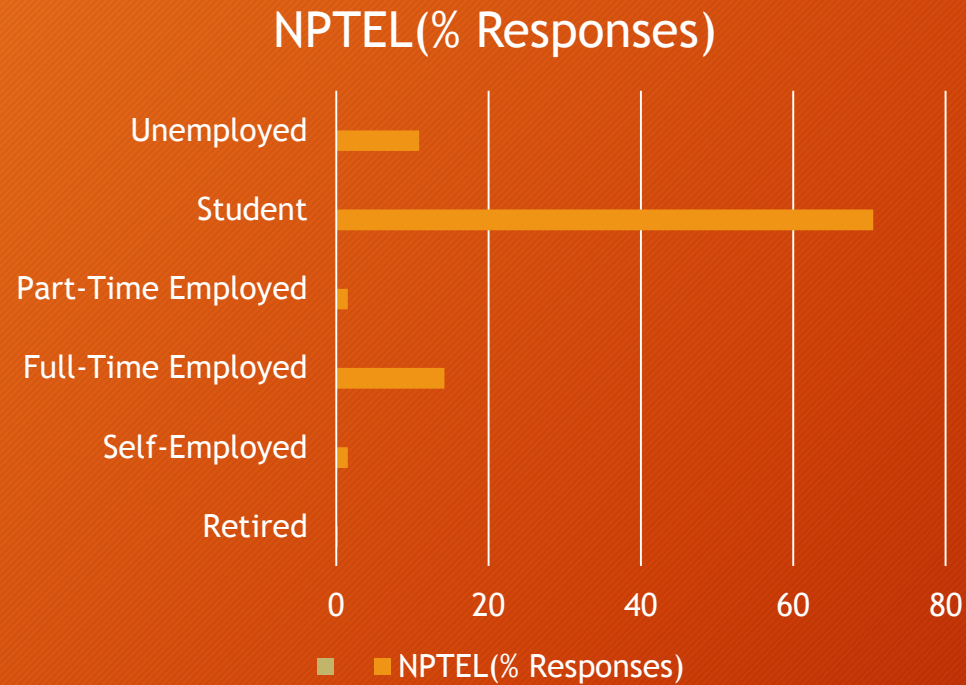
NPTEL(% Responses)



FutureLearn(% Responses)



DEMOGRAPHICS - EMPLOYMENT LEVELS



MOTIVATION

- Two Scales of Extrinsic Motivation and Leisure Learning
- The Mann-Whitney U-Test was used to compare the means of the two scales.
- NPTEL users statistically significantly more likely to take MOOCs for Extrinsic Motivators (Professional Development, Improving Job/Education Prospects etc.) ($U=246496.5$, $p=0.05$) while FutureLearn users were statistically significantly more likely to take MOOCs for leisure purposes ($U=207139.5$, $p=0.05$).

Challenges

- Two Scales of Challenges, broadly defined as “Technical Challenges” and “Course Difficulty related Challenges”.
- Mann-Whitney U-Test was used to compare the non-parametric means of the scales generated.
- NPTEL participants were statistically significantly more likely to face Technical challenges ($U=193748.500$, $p=0.05$) and find the courses tougher ($U=197454$, $p=0.05$) than FutureLearn participants.

Emerging Themes from Interviews

- Low quality of local instruction - MOOCs as a 'quality' supplement to poor educational standards.
- Re-evaluate how learners engage with MOOCs - Technical challenges in India - Downloading course content - Implications for Research?
- FutureLearn participants more likely to be life-long learners - similar to existing accounts from MOOC learner literature
- Learners using FutureLearn courses to overcome societal norms.
- When given a choice, learners prefer local to global MOOC content.
- However, learners prefer British accent over the Indian accent.

THANK YOU!

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