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Global Learning @ Scale

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BACKGROUND

This workshop proposes specifically soliciting contributions and presentations from initiatives, programs, and platforms around the world. While many of these may already be presented at the full conference, we are also interested in more casual experience reports, case studies, and background presentations from individuals more closely acquainted with how learning at scale initiatives—including MOOCs, for-credit degree programs, informal learning environments, government initiatives, and so on—have unique needs and opportunities based on their local context. We refer to this as Global Learning @ Scale.

For the purposes of this workshop, we take two views of Global Learning @ Scale.

International Contexts

Around the world, educational initiatives intersect with various elements of local culture, national policies and growth objectives, and regulatory environments. This complex web of factors dictates trends like the monetary support for Learning @ Scale initiatives, the acceptability of non-traditional scalable course models in for-credit education, and the expec-

tations for faculty for participation in these initiatives. The literature, however, often focuses on a much smaller subset of major players from a handful of universities and nations.

Thus, the first view we take on Global Learning @ Scale is to understand the various ways in which learning at scale manifests in specific national, regional, and local environments. What are the platforms different countries use? What is the government support for developing online learning initiatives? What regulations stand in the way or support these developments? How do learning at scale initiatives align with local cultures' views on the role of education? Which are the different roles that universities and other institutions play in this development?

For example, in the United States, the MOOC movement has largely been driven by corporate platforms (Coursera, Udacity) and partnerships between universities and non-profits (edX). India and China, however, have seen larger national pushes for the development of online education initiatives. India's SWAYAM and China's National MOOCs Recognition Program, for instance, offer pathways to credit or greater levels of national endorsement that are still relatively rare on the United States' platforms [1]. In Latin American regions, universities themselves have taken a more active role towards the development of MOOCs in their own countries compared to the more standalone entities in the United States.

Institutions may also use MOOCs as ambassadors by adding cultural touches to their courses, allowing virtual exchanges across universities from different countries, and repackaging MOOCs for on-campus project-based blended learning class-

rooms (and vice-versa), among others. For instance, the Association of East Asian Research Universities (AERU) participated in by 19 universities in East Asia offers the culturally-significant MOOCs "Modern Japanese Architecture" from Tokyo Institute of Technology and "Social Inequality in China, 1700-2000, in Comparative Perspective" from Hong Kong University of Science and Technology for their exchange program, Summer Institute for Extended Flipped Education [5].

Thus, the first goal of this workshop is to solicit even more reports about institutional, national, and regional initiatives. These may go underrepresented in the more research-focused main conference, but nonetheless are valuable parts of the conversation about learning at scale.

Cross-Border Interactions

The second view we take on Global Learning @ Scale is regarding the way in which learning at scale increasingly crosses borders. The ability to attend school and participate in classes online removes many national borders to participating in programs. For example, Georgia Tech's online MS programs enroll almost 4000 students who presently reside outside of the United States. No longer is it necessary (though it may still be desirable) to immigrate to another country to attain a degree from that country's institutions.

This trend raises enormous new challenges and opportunities. In terms of challenges, many portions of university regulatory environments are written assuming local students. Requirements for identification, prior degree attainment, and language fluency often assume the university's local context. The internationalization of these programs challenges many of these assumptions. Furthermore, enrolling students from around the world in shared classes presents new challenges for activities like groupwork. It may also inject the effect of different cultural contexts and expectations into activities like plagiarism detection, peer review, and discussion participation. In fact, previous research compared Arab learners taking MOOCs on edX and on Edraak, an Arabic MOOC initiative. The results showed that Arab learners in Edraak's local context had much better engagement metrics, and attracted a younger, less educated and more gender-balanced set of learners [4]. Exploring differences between local initiatives and those that cross borders is of vital importance to understand its effect on the learning process.

There are opportunities to these trends as well, however. Students graduating from these programs are entering an increasingly global economy, and the opportunity to interact with others not just from, but actively residing in other nations and cultures during their education presents a unique and valuable learning experience. The affordability that often comes with these new degree experiences also may play an equalizing effect, letting students from around the world access quality education for only the cost of tuition, rather than the cost of both tuition and migration.

There may also be additional effects worth examining in this increasingly multinational context. For example, does the increasing ability to attend programs from other countries hurt a nation's own local higher education climate? Does it contribute to a centralization of education not only locally, but globally? In previous decades, the effect that a graduate program in the United States might have on comparable programs on the other side of the world may have been minimal; now, however, it may be worth asking whether students attending the new wave of affordable online degrees from institutions like Georgia Tech, the University of Queensland, and the University of Illinois would have otherwise attended a local program.

Some of the questions raised by this new cross-border international education are being explored by a current initiative to analyze and compare the data of global and local/regional MOOC platforms. Preliminary results of the group's first joint research effort have been accepted for publication at the International Learning Analytics and Knowledge (LAK) Conference 2020 — a preprint of this paper is already available online [2]. In this study, Ruipérez-Valiente *et al*. share aggregate analysis of students' demographics across 12 different MOOC providers. There remain many questions, however, that may only be answered by soliciting the input from representatives, faculty, and students of these programs themselves.

Summary

In summary, the Workshop on Global Learning @ Scale will put a specific focus on learning at scale around the world, both within and between countries that are largely underrepresented in the core of learning at scale research. It will welcome rigorous research studies as well as experience reports, case studies, student perspectives, and background presentations.

ORGANIZERS

Organizers for the workshop are:

- **David Joyner, Executive Director of OMSCS and Online Education, Georgia Tech College of Computing, USA.** Joyner runs an online MSCS program with a large international presence, and has done extensive research on learning at scale.
- **May Carlon, Ph.D. student in Global Engineering for Development, Environment, and Society, Tokyo Institute of Technology, Japan.** Carlon graduated from the aforementioned OMSCS program and is currently a teaching assistant at Tokyo Tech's Online Education Development Office (OEDO)
- **Jeffrey Cross, Professor, Tokyo Institute of Technology School of Environment and Society, Japan.** Aside from managing learning analytics and educational technology research groups, Cross is also the founder and general manager of OEDO that develops online courses both for public and on-campus use.
- **Eduardo Corpeño, Professor and Co-director of a Master of Science program in Automation and Em-**

bedded Systems, Galileo University, Guatemala. Corpeño is a proud graduate of the OMSCS program at Georgia Tech, and is currently in charge of turning this Master's program at Galileo into a fully online program.

- **Rocael Hernández Rizzardini, Director of the Von Neumann Institute and Director of the GES Department, Galileo University, Guatemala.** Hernández leads digital learning initiatives at Galileo, with over 1 million learners in MOOCs and traditional settings.

- **Oscar Rodas, Director of Electrical Engineer & Co-Director of a Master of Science in Automation and Embedded Systems, Director of Tesla Lab Galileo University, Guatemala.** Rodas obtained a PhD with assessment of Telecom Sud Paris. His interests are developing Industry 4.0 in his country. He also works in outreach programs and helping to build the Technology Innovation Ecosystem in his country.

- **Thomas Staubitz, Researcher, Hasso-Plattner Institute (HPI), Germany.** Staubitz is one of the core members of the HPI's MOOC platform team. The HPI is operating the platform not only for its own purposes but also for partners, such as SAP or the World Health Organization (WHO). In total the platforms operated by the HPI have more than 1 million users.

- **Dhawal Shah, CEO, Class Central, USA.** Shah is the founder and CEO of Class Central, an online listing of some of the best online courses offered by providers worldwide.

- **Manoel Cortes-Mendez, Software Engineer, Class Central, USA.** Cortes-Mendez is a software engineering at Class Central and a contributor to the company's research initiatives.

- **José A. Ruipérez-Valiente, Researcher, University of Murcia, Spain.** Ruipérez-Valiente is a Juan de la Cierva Researcher at the University of Murcia and research affiliate at MIT. Ruipérez-Valiente has performed extensive research in MOOCs, and during the last year he initiated the MOOC Macro Learning Analytics line of research, which is analyzing and comparing data from global and regional MOOC providers around the world.

PRE-WORKSHOP PLANS
If this workshop proposal is accepted, the call for participation (provided below) will be posted within a couple days to the conference workshop page. At the end of the submission window, submissions will be reviewed by the organizing committee, and accepted workshop papers will be invited to present at the workshop itself. Accepted submitters will be notified; any submitters whose submission was not accepted will be invited to attend and participate in the workshop discussions as well.

WORKSHOP STRUCTURE
The half-day workshop will open with brief remarks from the workshop co-organizers. Then, there will be a small number of presentations from the co-organizers, including but not limited to:

- David Joyner will present information about the international reach and impact of Georgia Tech's online MS programs.
- Manoel Cortes-Mendez will talk about SWAYAM, an initiative of India's Ministry of Human Resource Development allowing students to earn academic credit through MOOCs.
- José A. Ruipérez-Valiente will present on MOOC macro-analytics, comparing MOOC platforms around the world.
- Rocael Hernández Rizzardini will present data of MOOCs for the Latin-American region.
- Thomas Staubitz will present MOOC initiatives in Germany and the enterprise MOOC perspective.
- Jeffrey Cross will give an overview of MOOCs in Japan and introduce a blended learning 2019 summer program with HKUST offering online courses for credit.

After these initial presentations, accepted workshop presenters will each briefly present their work. The length of these presentations will be commensurate with the number of accepted papers; the total amount of time for introductory presentations and accepted paper presentations is expected to be 2 hours.

At the conclusion of the presentations, attendees will form into smaller discussion groups based on common interests or patterns observed throughout the presentations. Examples of possible groups that may emerge based on the papers that are submitted include: differential government support for attaching credit to at-scale programs; challenges with transferring credentials across national borders; partnerships between international universities; and so on. These will be determined live at the conference after soliciting ideas from the attendees themselves. These discussion groups will then meet independently for one hour to discuss the issue selected for their sub-group.

At the conclusion of these discussions, the broader group will re-convene for 30 minutes. The individual break-out groups will present the results and takeaways from their discussions, and the workshop will close with discussion regarding next steps.

POST-WORKSHOP PLANS
After the workshop, accepted papers will be published in a workshop-specific set of separate proceedings, along with a summary of the interaction at the workshop itself.

In addition, we will set up a discussion group to remain in communication after the workshop closes. During the workshop, we will solicit feedback from the attendees about what form this should take (mailing list, Slack organization, Google Group, Facebook group, etc.). Through this avenue, we will also send out a monthly discussion thread for casual sharing of more recent interesting developments in each person's project.

CALL FOR PARTICIPATION

The First Workshop on Global Learning @ Scale will be held alongside the 2020 ACM Conference on Learning @ Scale on May 27, 2020 in the Global Learning Center at Georgia Tech.

The Workshop on Global Learning @ Scale provides an avenue for presentation of learning at scale initiatives and programs around the world. This takes two primary forms. First, the growth of online education initiatives—including MOOCs, for-credit programs, vocational training, etc.—exists within particular cultural, regulatory, and administrative contexts. The opportunities and limitations for learning at scale initiatives differ greatly from context to context. For example, while many of the early MOOC providers were based in the United States, initiatives like India's SWAYAM and China's National MOOCs Recognition Program that have made faster progress toward attaching stronger endorsement and credibility to MOOC-based courses. Other nations have other initiatives, programs, or platforms for learning at scale. While these may not have yet been researched in a manner sufficient for the types of full research papers presented in the conference, they are valuable contributions to the overall conversation about learning at scale. So, we first seek contributions describing the nature of learning at scale initiatives around the world.

Secondly, part of the impact of learning at scale has been in extending educational programs across national borders. While immigration to attend institutes of higher learning has long been common, this new level of access means that online at-scale programs may enroll students living across the world. Georgia Tech's online MSCS programs, for instance, enroll almost 4000 students presently living outside of the United States. However, this brings up complex issues surrounding how credentials, credit, and student experiences translate across national boundaries. For example, many online graduate programs in the United States require 4-year Bachelor's degrees, while many institutions around the world offer only 3-year Bachelor's degrees, leaving applicants without an obvious avenue into a program they otherwise have no technological barriers to attending. Thus, we secondly seek reports specifically on how learning at scale initiatives translate across national borders.

We welcome case studies, experience reports, and position papers, as well as more internationally-focused qualitative and quantitative research studies.

REFERENCES

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