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The Role of MOOCs in the New Educational Scenario

An Integrated Strategy for Faculty Development

Daniela Casiraghi, Susanna Sancassani, and Federica Brambilla

Politecnico di Milano – METID Task Force Teaching Learning Innovation
P.zza Leonardo da Vinci 32, Milano, Italy

The COVID-19 pandemic emergency has forced a profound reshape of our lives. Our way of working and studying has been disrupted with the result of an acceleration of the shift to the digital world. To properly adapt to this change, we need to outline and implement new urgent strategies and approaches which put learning at the center, supporting workers and students to further develop “future proof” skills. In the last period, universities and educational institutions have demonstrated that they can play an important role in this context, also leveraging on the potential of Massive Open Online Courses (MOOCs) which proved to be an important vehicle of flexibility and adaptation in a general context characterised by several constraints. From March 2020 till now, we have witnessed an exponential growth of MOOCs enrollments numbers, with “traditional” students interested in different topics not necessarily integrated to their curricular studies. To support students and faculty development during the spreading of the pandemic, Politecnico di Milano focused on one main dimension: faculty development for a better integration of digital tools and contents in the e-learning experience. The current discussion focuses on how to improve the integration of MOOCs in the in-presence activities to create meaningful learning and teaching experiences, thereby leveraging blended learning approaches to engage both students and external stakeholders to equip them with future job relevance skills.

UNESCO¹ estimated that 1.5 billion learners were affected by school closures, more than 200 million in higher education. Several educational institutions moved to remote teaching in a few days and with emergency plans.

The unexpected scenario highlighted the resiliency of several educational institutions and unraveled how digital and interactive solutions can complement the rich and unique in-person experience. Particularly, Massive Open Online Courses

¹COVID-19 Educational Disruption and Response. UNESCO. May 2020. Available at: <https://en.unesco.org/news/covid-19-educational-disruption-and-response> (Accessed: 7 February 2021)

(MOOCs) proved to be an important vehicle of flexibility and adaptation in a general context characterized by several constraints. According to Class central² analysis, the top three MOOC providers (Coursera, edX, and Future Learn) registered as many new users in April 2020 as in the whole of 2019. As we all know, there was a lot of hype surrounding MOOCs in 2012, “The year of MOOCs” with an explosion of providers, new courses and users enrollment, but after a while the registration trend normalised and, since then, the numbers have grown constantly but relatively slowly.

The pandemic broke this trend. According to Class central around 25–30% of the total registered users on these platforms came after the pandemic. Coursera³ added 15 million new learners in the period from March to June 2020, receiving 35 million enrollments between mid-March and the end of July⁴. Coursera declares that governments and universities using Coursera’s Campus Response Initiative⁵ have equipped more than one million people with free access to job-relevant online learning.

In order to support teachers in integrating MOOCs in the learning experience, Politecnico di Milano has launched a series of online training paths for faculty development, offering a series of stimuli and tools useful to redesign learning and teaching experiences by enhancing the coherence between learning objectives, assessment methods and active learning experiences.

In March 2020, the training path for faculty development moved online due to the pandemic: a complete redesign of the usual workshop structure was made. The synchronous activities have been characterized by workshops based on workgroups held in “Interactive classrooms” provided by Webex, with the visual support of Miro⁶, a collaborative digital advanced whiteboard: participants were requested to reflect in groups on the key issues related to learning design. Then, they were asked to deepen the details following the “MOOCs for teachers” track and, specifically “Designing Learning Innovation” MOOC.

“Designing Learning Innovation” aims to put the design culture at the service of learning innovation. It addresses the topic of learning design with a systemic approach, thus fostering the implementation of coherent learning and teaching experiences which can leverage on different possibilities to engage students and teachers in meaningful educational experiences. This MOOC constitutes the main pillar of the “MOOCs for Teachers” track. The first edition was in Italian, but it has been developed also in English during the pandemic to reach a wider audience and

²By the Numbers: MOOCs During the Pandemic, <https://www.classcentral.com/report/mooc-stats-pandemic/>

³www.coursera.org

⁴Coursera Global Skills Index 2020, <https://about.coursera.org/press/insights/report-global-skills-index-2020>

⁵Coursera Coronavirus Response Initiative. Coursera. March 2020.

⁶<https://miro.com/>

to support the redesign task of several teachers that needed to adapt their courses to the urgent needs emerged. Both editions were developed as MOOC-BOOK with a deep mutual integration with the handbooks published by Pearson.

Other relevant MOOCs of the track address specific topics, such as active and blended learning, assessment strategies, Open Educational Resources. They have strongly supported the Politecnico di Milano faculty during the disruptive educational period we experienced, boosting the creation of a new online and blended learning culture. Following some of them.

“To Flip or Not To Flip” MOOC presents the flipped classroom approach, thus supporting the reflection about the design of valuable activities to be carried out remotely or on-campus and the effective integration of them.

“Engaging Students in Active Learning” focuses on techniques that allow teachers to actively engage students during lessons, improving collaboration and interaction within the students, but also supporting them in taking responsibility for their own learning journey. Although online, many teachers grasped the deeper meaning implementing active teaching methodologies that avoided the risk of high student dropout rates during a semester characterized by all-day online classes.

“Using Open Educational Resources in Teaching” illustrates how to exploit the potential of educational resources released in the public domain or under a Creative Commons license, to design, innovate or update a course. This course has been useful when the quick shift to an online scenario has requested to redesign several learning and teaching activities overnight, for example requiring translating Labs in-presence experiences into online virtual experiments and tours.

“New Assessment Strategies – The magic of feedback” explains how formative assessment can foster learning, as constant feedback allows students to improve and to reach the desired results. This MOOC has been appreciated by teachers who needed to rethink their assessment strategies, so to move from an approach based on few final assessments (managed with online proctoring services and processes and creating several difficulties) toward an approach based on continuous assessment.

The last MOOC of this series is “Active Learning for Softs skills Development”, accessible from the 22 of February (2021), which provides insights on how to foster the development of soft and digital skills while teaching disciplinary subjects. This course is one of the outputs of the Erasmus+ eLene4life project⁷ and it collects meaningful experiences of international teachers around Europe who have implemented an active learning method also during the pandemic (in the academic year 2019/2020).

The “MOOCs for Teachers” track is constantly updated and integrated with new MOOCs addressing key issues: more than 13,000 users have enrolled in at least

⁷https://www.pok.polimi.it/courses/course-v1:Polimi+SSD101+2021_M1/www.elene4life.eu

one MOOC, and nearly 3,600 of them have earned a certificate of accomplishment, with a completion rate of 27%, quite unusual in the MOOC panorama.

The COVID-19 pandemic acted as a truly disruptive moment: every sector was forced to rethink processes and strategies that could rely on digitalization to be more effective. In the education sector, MOOCs have shown to be a great resource, at a time of several constraints: they have supported the training of both university staff and students, offering the possibility to scale-up numbers without any constraints, for example the presence of several people at the same place. By being open and accessible to anyone, they have also supported the upskilling of different stakeholders, for example in innovative small medium enterprises, so that they could cope with the difficult situation.

The COVID-19 pandemic has thus fostered the widespread of the “MOOCs culture”: within several organizations the discussion about new educational scenarios is now open and livening up. The educational institutions are searching for best practices to integrate them in their learning and teaching processes and MOOCs surely provide some of them. One of the main risks is to merely conceive MOOCs as a series of videos or digital contents disconnected from the teaching activities, both online and in-presence, and from the flexible spaces, enhanced with technologies, that are slowly spreading in the university context.

The connection between pedagogy, technology and learning spaces in educational innovation processes is the focus on which several studies and models are based. Radcliffe [2] outlined the “Pedagogy-Space-Technology” (PST) framework, which has to be considered as a reference for setting up an integrated instructional innovation strategy, where new pedagogical approaches, flexible spaces and technologies are the main ingredients of the ecosystem where innovation in education can find opportunities to evolve. The challenge to tackle will be to apply this model to a “blended educational system” that integrates MOOCs while maximising the possibilities of flexible spaces and innovative technologies to create valuable learning.

References

- [1] D. Haselberg, P. Oberhuemer, E. Pérez, M. Cinque, and D. Capasso. *Mediating Soft Skills at Higher Education Institutions (ModEs project)*. 2012. URL: <https://www.euca.eu/modes> (last accessed 2021-02-07).
- [2] D. Radcliffe. *A Pedagogy-space-technology (PST) framework for designing and evaluating learning places*. Edited by D. Radcliffe, H. Wilson, D. Powell, and B. Tibbetts. Brisbane, Qld: The University of Queensland, the Australian Learning, and Teaching Council, 2009, pages 10–15.