

# The Landscape of MOOCs and Higher Education in Europe and the USA

Valentina Goglio<sup>1</sup> [0000-0001-6341-4815]

<sup>1</sup> University of Turin, Lungo Dora Siena 100, 10153 Turin, IT  
valentina.goglio@unito.it

**Abstract.** European countries are late adopters of MOOCs compared to the USA. However, starting from 2013, several initiatives were launched in Europe by both Higher Education institutions and governments, giving origin to a considerable number of ‘European’ MOOCs and platforms. As it happened for the US, also in Europe MOOCs enjoyed a huge degree of attention on the media. Nonetheless, so far very few studies addressed similarities and differences of the diffusion of MOOCs on the two sides of the Atlantic Ocean from an institutional standpoint. Which are the unique features, the strengths and weaknesses of each models? Which are the peculiar features of the diffusion of MOOCs in Europe as opposed to the United States? This work-in-progress paper addresses these questions aiming to accomplish a comparison of the two experiences. Building on existing literature about the institutional configuration of MOOCs in Europe and USA the paper highlights patterns of diffusion, main differences and similarities across the two cases.

**Keywords:** diffusion of MOOCs, institutional models of MOOCs, EU-USA comparative research.

## 1 Introduction

European countries are late adopters of MOOCs compared to the USA, where since 2012 MOOCs had an impressive growth, accompanied by an enthusiastic media coverage. Starting from 2013 several initiatives were launched in Europe, giving origin to a considerable number of MOOCs provided by European HE institutions delivered on both European-based platforms and other regional or own platforms.

As it happened for the US, MOOCs became a buzzword in Europe as well, and enjoyed a huge degree of attention on the media. No other educational technology ever gained such a hype of excitement among both private and public actors [1].

Nonetheless, so far very few studies addressed similarities and differences of the diffusion of MOOCs on the two sides of the Atlantic Ocean from an institutional standpoint. This work-in progress maps the timing and modes of emerging MOOCs initiatives in Europe and the role played by institutional actors, with particular attention to the unique features that characterize the evolution of MOOCs in Europe as opposed to what happened in the USA. For the purpose of this investigation the unit of analysis are those resources that fall under the definition provided by the MOOC acronym itself:

university-level courses on a specific subject, delivered online on digital platforms, free-of charge (at least in their basic form) and potentially available to a massive number of learners simultaneously. Moreover, for the sake of comparison this work narrows the analysis to experiences in the USA and Europe only. Early experience of cMOOCs and recent developments of MOOCs in the rest of the world (e.g. in India and China) are out of the scope of this paper.

A comparison of the European and North American experiences can help identifying the strengths and weaknesses of each model and contributes to a better understanding of the phenomenon. This work-in-progress paper aims to contribute to the discussion about MOOCs by extending the analysis to institutional and ethical implications of the phenomenon. Responding to the call for an enlarged research agenda about MOOCs claimed by De Rosa [2], the paper aims to provide new evidence on the study of MOOCs as social movement, investigating institutional strategies and policy reforms implemented at European and North-American level.

## 2 The Diffusion of MOOCs in Europe

The discourse around MOOCs in Europe started with a bit of delay and with much less media attention [3] compared to the hype that characterized the North-American experience. The ‘year of the MOOCs’ in Europe was 2013, and the major player initiating the conversation was the European Commission (EC). In June 2013 the EC released a Communication to the EU Parliament [4] in which clearly refers to the potential of MOOCs in widening access to education by reaching non-traditional students and then, in September 2013, launched the *Opening Up Education Initiative* [5]. Since then the EC funded several projects through H2020 and other specific programs by its Directions Generals. Some examples are the website *Open Education Europa* and the *European MOOC Scoreboard* tracking all MOOCs produced and delivered by European HE institutions (terminated in 2016) [6]. *OpenupEd* appeared in 2013, coordinated by EADTU, as the first Pan-European partnership created with the aim of fostering collaboration among HE institutions providing MOOCs. In 2014 the EC funded the MOOC aggregator *EMMA*, created by the University of Naples ‘Federico II’ with the aim of hosting MOOCs taught in different languages from several European HE institutions. The unique feature of *EMMA* is an explicit focus on multi-language MOOCs, with the aim of combining the potential wide reach of free, open, online courses with the strength represented by the diversity of the European context.

More recently, in 2017, the *European MOOC Consortium* was created with the aim of “taking a leading role in developing the discourse relating to MOOCs and other innovative developments in online learning in Europe” [7], including MOOCs for credit.

Alongside supra-national experiences, several other MOOCs initiatives developed at national level [6]. Due to the limited space available here we can only mention some of the major local initiatives: *FUN –France Université Numérique* (France, public),

*Future Learn* (UK, private), *Federica Web learning* and *OpenEd* (Italy, public), *Iversity* (Germany, public).

### 3 Patterns of diffusion – the three waves revisited

MOOCs seem to be headed to a stage of maturity and consolidation, so nowadays it is possible to identify some key phases, or waves as defined by Brown [8], in their process of diffusion and establishment. In this section we build on the work done by Brown and contribute to differentiate between the North-American and European trajectories.

The first wave has been denominated “**MOOCs for marketing**” to stress the main drivers of the early diffusion of MOOCs. Indeed, as also emerging in Allen and Seaman [9] and Tirthali and Holland [10], the early developments of xMOOCs were characterized by a branding activity of elite higher education institutions in the USA, which strategically adopted MOOCs to increase their (already high) international prestige and to attract students. The surveys highlighted that maintaining the global value of their brand, increasing visibility of the institution and the recruitment of students were mentioned as the key drivers for the early period. This phase was also characterized by a sort of race toward the adoption of MOOCs, framed in the “Fear of Missing Out” syndrome (FOMO). As far as Europe is concerned, the first phase was characterized by high expectations, but combined with less enthusiasm compared to the hype occurring in the USA, and a mix of over-caution and fear for the unknown consequences of MOOCs on HE institutions [3]. As Brown notes, European HE institutions joined with a bit of delay the MOOCs trend and will be the main players of the second wave. At the very early stage of the MOOC diffusion European HE institutions mainly stood as observers with a bit of apprehension [3]. This waiting strategy is well summarized by some ed-tech investors who lamented that “UK higher education is extremely good, but the scale of ambition is low” [11] with respect to joining the revolution of online learning. Part of HE institutions, in particular those who traditionally served the market of distance education, expressed serious concern for the future of their business. The Vice-Chancellor of UK Open University, defined the emerging of MOOCs as the “Napster moment for higher education”: institutions supporting MOOC may be considered irresponsible as free MOOCs could clear the market of distance education, with consequences for all HE institutions [11]. Even more positive perspectives, such as the one expressed by the Vice-Chancellor of the University of London, defined the MOOCs as a wave to be surfed, inherently impossible to retain and considering MOOCs an emerging issue that HE institutions, like it or not, have to deal with.

Brown identified the second wave as “**MOOCs for life-long learning**”. Approximately this phase matches with the emergence of MOOCs initiatives outside of the USA, occurring at European level, national level (e.g. France, Italy, Spain) as well as other regional experiences (in Australia, Mexico, China, India and Arabic platforms). This second wave approximately took place around the years 2013-2014 and was characterized by a diverse array of experiences as well as by a resizing of the potential and expectations of MOOCs. The hype that occurred in the USA indeed, very

quickly started to design its descending curve [12]. It is the period in which the promises and viability of MOOCs started to be questioned, some of the key actors experienced important backlashes [13] and movements of protest against the adoption of MOOCs for credit spread across American universities [14].

European institutions thus seem to take advantage of the lessons coming from the USA and start implementing initiatives that stress the open component of MOOCs as a step to circulation of knowledge. They are in general motivated by macro-drivers as “exploring flexible learning opportunities” and “reaching new target groups” [15]; tend to adopt business strategies oriented to support life-long learning processes and not to interfere with formal education. Also in virtue of the leading role played by the European Commission, the diffusion of MOOCs in Europe soon took the shape of a homogenous process, outlining the emergence of a ‘European way’ (although mainly involving Western European countries). In this context, MOOCs were also framed as a potential tool for bridging country differences and contributing to build a truly European HE system: “An ambitious goal, that could reinforce institutional consensus and work towards a genuinely European identity” [3, p. 281].

Finally, the most recent wave is denominated “**MOOCs for credit and Continuing Professional Development pathways**”, pointing to the emerging trend of micro-credentials and professional short degrees that pile up single MOOCs to form a short and consistent series on a specific topic. This trend is led by major US providers (edX, Coursera, Udacity), offering several forms of ‘micro-masters’ or ‘nano-degrees’ that rapidly spread on the market of MOOCs (over 450 micro-credentials are available in 2018). However, there is a huge variance in the form and characteristics of the micro-credential both among and within providers. Not all of them are stackable to make a longer educational program, nor are transferrable for credits; their value and role in the educational landscape is not yet clear [16]. Actually, recent analysis shows mixed evidence about this emerging trend, with full online degrees in competition with micro-credentials: “Microcredentials, which were on the rise for the past few years, are no longer the new hot thing; the focus has shifted to online degrees, though over 120 new Microcredential programs were launched this year” [17]. In any case, this segment of the MOOCs market lost the second O of MOOC, the one that stands for ‘Open’, showing a strong market orientation, with business models following market logics targeting professionals and other medium-high skilled workers (as D. Shah points out “one thing is abundantly clear: free users are no longer a focus” [17]).

European HE institutions are still in the midst of this evolution. The presence of EU institutions in the market of MicroCredential is still very limited, with only three European HE institutions offering, among which the UK Open University has a leading role [18]. Indeed, the UK provider Future Learn was the first one to introduce, alongside proper MOOCs, full online degrees in partnership with UK and Australian universities. The recent partnership between Future Learn and the SEEK Group [25] may suggest an increasing interest for the UK provider toward continuous education, micro-credentials and up-skilling/re-skilling of adult learners. The European HE institutions that founded the European MOOC Consortium released a position paper supporting -among others- the goal of a common recognition framework for MOOCs [8].

It is too early to assess these experiences and to guess where the next wave will break. A common trait is that in both the EU and USA the integration of MOOCs in the HE system eventually did not happen. The two streams remain separate in two tracks: the formal curricular education and the market of lifelong learning and professional development. Even the recent push toward MicroCredentials [16] does not seem to interfere with the market of formal education: the two markets do not overlap and rather are complementary (it even increases students at campus courses) [19], [20].

#### 4 Can we talk about a European way to MOOCs?

In this section we attempt to summarize the main differences pertaining to key dimensions of the development of MOOCs that distinguish the European experience from the development occurred in the USA.

- **Actors:** A first key difference between Europe and the USA is that a European common HE system does not exist. Despite efforts to harmonize the several national systems through the Bologna Process, each Member State still maintains its own authority over education, including the Higher Education system. A second important difference is the structure of the HE system. The US HE system is a multitier system, highly stratified and diversified, with a handful of 4-year selective elite liberal arts colleges and research universities that constitute the top tier (involving only a tiny minority of the whole US students), and a large basis of *broad access schools* that admit the majority of applicants and range from 4 to 2-year programs at public or private organizations [21]. The MOOC phenomenon originated from a very restricted group of highly selective elite universities, which spilled over its consequences on the lower tiers of the HE system in a top-down approach. On the other side, most European countries have a larger public component and the HE system is less diversified and stratified compared to the US HE system. Despite the heterogeneity of institutional governance, European MOOC experiences have been characterized by an active and participatory role of governmental initiatives, led by the European Commission at super-national level and by national Ministries at State level. In this context regional and national policies have been considered key enablers in supporting the growth of MOOCs [22]. The public nature of these initiatives, which funded specific programs for the diffusion of MOOCs and even directly funded public platforms for the provision of MOOCs, made the development of MOOCs in Europe generally less oriented to market logics compared to the leading private companies providing MOOCs founded in the USA (as Coursera and Udacity).

- **Logics:** With respect to the vision of what MOOCs are and which is the leading perspective that characterizes their diffusion in Europe, the three paradigms elaborated by De Rosa and Reda [8], [9] indicate that the diffusion of MOOCs in the USA has shown since the beginning features typically belonging to the “Economic paradigm”. Elite HE institutions joined (if not initiated) the MOOC movement with the idea of using free online education as a marketing strategy to recruit prospective students and to internationally brand their name and prestige [15]. The major MOOCs platforms were established as for-profit companies (Coursera, Udacity) while the only major non-profit

platform, edX, drifts toward market logics [23]. On the other hand, De Rosa and Reda [9] stress the internal homogeneity of the “European paradigm”, despite the cultural and language heterogeneity. The development of MOOCs in Europe seem to aim to preserve the original openness and accessibility features inherited from the Open Education movement, with a focus on enlarging the audience of potential learners and experimenting flexible forms of learning. European HE institutions may appreciate positive returns associated to MOOC provisions as the rise in overall enrollment [30] and may be interested in evaluating several options of MOOCs business models [24]. However, the dimensions of finance, scalability of MOOCs, and student recruitment are not a priority for EU institutions, as opposed to HE institutions in the USA [21]. Another key point is the attention to cultural and linguistic diversity of the European context. Despite the majority of courses provided by European institutions are in English in order to reach a wide audience, several experiences advocate in favor of language and cultural diversity, either directly (e.g. FUN, EMMA) or indirectly (e.g. Spanish HE institutions on MiriadaX).

- **Supply:** as far as practical aspects of the diffusion of MOOCs are concerned, the emerging pattern for Europe points to a widespread diffusion of MOOCs initiatives across many institutions and many MOOC providers. It results in a plurality of solutions in the provision of MOOCs. Moreover, European experiences highlight a preference of HE institutions for running MOOCs on their own platforms versus out-sourcing the provision of MOOCs to external platforms, as in the case of Coursera or edX [12].

## References

- [1] D. Jansen, “About MOOCs,” in *Mooc Book*, 2016.
- [2] R. De Rosa, “A research agenda on MOOCs: the perspective of social sciences,” *Ital. J. Educ. Technol.*, vol. 26, no. 2, pp. 54–67, Jul. 2018.
- [3] R. De Rosa and V. Reda, “La rivoluzione dei MOOCs: un’analisi di policy framework su scala europea,” *LEA - Lingue E Lett. D’Oriente E D’Occidente*, vol. 2, pp. 272–311, 2013.
- [4] European Commission, “European higher education in the world,” European Commission, Brussels, Belgium, Communication from the Commission COM(2013) 499, 2013.
- [5] European Commission, “Opening up Education: Innovative teaching and learning for all through new Technologies and Open Educational Resources,” Brussels, Belgium, Communication from the Commission (COM(2013) 654, Sep. 2013.
- [6] A. Sfiri, K. Pietkiewicz, and D. Jansen, “Existing MOOC Initiatives in higher education and business sector and the distribution of MOOC learners in the EU,” in *Mooc Book*, 2016.
- [7] EADTU, “The European MOOC Consortium (EMC). Mission State Document.” The Online, Open and Flexible Higher Education Conference, 2017.
- [8] M. Brown, “Why Invest in MOOCs? Strategic Institutional Drivers,” in *The 2018 OpenupEd Trend Report on MOOCs*, D. Jansen and L. Konings, Eds. Maastricht, NL: EADTU, 2018, pp. 6–9.
- [9] I. E. Allen and J. Seaman, “Grade Change. Tracking Online Education in the United States,” Babson Survey Research Group, Jan. 2014.
- [10] D. Tirthali and F. Hollands, “Why do institutions offer MOOCs? (2014),” *Online Learn.*, vol. 18, no. 3, pp. 1–19, 2014.
- [11] A. Fazackerley, “UK universities are wary of getting on board the mooc train,” *The Guardian*, 03-Dec-2012.

[12] M. Kent and R. Bennett, "What was all that about? Peak MOOC hype and post-MOOC legacies," in *Massive open online courses and higher education: what went right, what went wrong and where to next?*, London; New York: Routledge, 2017, pp. 1–8.

[13] M. Chafkin, "Udacity's Sebastian Thrun, Godfather Of Free Online Education, Changes Course," *Fast Company*, 14-Nov-2013. [Online]. Available: <https://www.fastcompany.com/3021473/udacity-sebastian-thrun-uphill-climb>. [Accessed: 09-Jan-2019].

[14] V. Goglio and P. Parigi, "Resistance to MOOCs in the US Higher Education system," presented at the SISEC Conference 2019, University of Naples, IT, 2019.

[15] D. Jansen, R. Schuwer, A. Teixeira, and C. H. Aydin, "Comparing MOOC Adoption Strategies in Europe: Results from the HOME Project Survey," *Int. Rev. Res. Open Distrib. Learn.*, vol. 16, no. 6, pp. 116–136, Dec. 2015.

[16] L. Pickard, D. Shah, and J. J. De Simone, "Mapping Microcredentials Across MOOC Platforms," in *Proceedings of Learning with MOOCs 2018*, Madrid, Spain, 2018, pp. 17–21.

[17] D. Shah, "Year of MOOC-based Degrees: A Review of MOOC Stats and Trends in 2018 — Class Central," *Class Central's MOOC Report*, 07-Jan-2019. [Online]. Available: <https://www.class-central.com/report/moocs-stats-and-trends-2018/>. [Accessed: 28-Jan-2019].

[18] V. Reda and R. Kerr, "The MOOC BA, a new frontier for internationalization," in *Proceedings of Learning with MOOCs 2018*, Madrid, Spain, 2018, pp. 94–97.

[19] Z. Galil, "Georgia Tech's Online MOOC-based Master Program," presented at the LWMOOCs V, Madrid, Spain, 28-Sep-2018.

[20] J. Jacqmin, "Providing MOOCs: A FUN way to enroll students?," *Inf. Econ. Policy*, Oct. 2018.

[21] W. R. Scott and M. W. Kirst, *Higher education and Silicon Valley: connected but conflicted*. Baltimore: Johns Hopkins University Press, 2017.

[22] J. Castaño Muñoz, Y. Punie, A. Inamorato dos Santos, M. Mitic, R. Morais, and Institute for Prospective Technological Studies, *How are higher education institutions dealing with openness?: a survey of practices, beliefs, and strategies in five European countries*. Luxembourg: Publications Office, 2016.

[23] D. Shah, "EdX Puts Up A Paywall for Graded Assignments," *Class Central*, Dec-2018.

[24] P. Belleflamme and J. Jacqmin, "An Economic Appraisal of MOOC Platforms: Business Models and Impacts on Higher Education," *CESifo Econ. Stud.*, vol. 62, no. 1, pp. 148–169, Mar. 2016.

[25] S. Nelson, "FutureLearn announces SEEK as new 50/50 shareholders alongside The Open University," *FutureLearn*, 29-Apr-2019.