



Development and innovative  
implementation of MOOCs  
in higher education



# MOOCS' POLICIES

2016

This project is supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS – UEFISCDI, project number PN-II-RU-TE-2014-4-2040

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*Note: This material is an draft version (incomplete) of the final output for this activity, that will be finalized in the next period of the project, taking into consideration the new development in this area. This is a draft version. Please don't cite or use this material without prior authors' agreement.*

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**Ramona-Alice BRAN** has been teaching English for social sciences since 2005. While working at the Faculty of Sociology and Psychology she has constantly pursued her interest in American literature and cultural studies. Consequently, in 2014 she defended an interdisciplinary PhD thesis at the Faculty of Cultural Studies from the *Technische Universität* in Dortmund, Germany. So far, Ramona-Alice Bran has authored and co-authored numerous journal articles, as well as two textbooks. She is currently preoccupied about integrating OER and MOOCs in her teaching activities. At the same time, she intends to create an online bilingual dictionary comprising terms from the area of social sciences.

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**Laura MALIȚA** graduated Informatics (BA) and Sociology of the Political and Administrative Institutions (MA). She has a PhD in Web Sociology, being continuously involved in (inter)national projects and activities with topics related to web social learning, web social aspects and users' behaviour, online communications.

She was benefited of a European Integration scholarship named "N. Titulescu" on the topics of social integration. She is certified as a Trainer of Trainers. Since 2000 she is continuously involved as partner or coordinator 20+ (inter)national projects. She is an academic teacher since 2000. She has also experience as Erasmus teaching professor. She was a teacher for European Master of Adult Education (7 universities and countries). At WUT she teaches about using social media applications in learning and professional development process, also for other purposes (i.e. in the first semester she had a transversal discipline with students from all the 11 WUT's faculties).

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With a background in Chemistry (PhD since 2004) assistant professor **Vlad CHIRIAC** has done many activities related to new trends in teaching STEAM to both high school pupils and students. He now is enrolled in a Master Degree in Education Sciences trying to enrich his expertise since working in IT field.

**Vlad CHIRIAC PhD.** is involved for the past 5 years in the National Committee of The Pupils Chemistry Olympics and other pupils contest, especially interdisciplinary as Earth Science Olympics (Chemistry, Physics, Biology, Geography) and Junior Science Olympics (Chemistry, Physics and Biology). He has both valued chemistry papers published and educational aimed works. He was involved in project which had the goal to transform way STEM disciplines are teach in both schools and universities. With a constant interest in innovating ways to teach STEM he joined Education Science studies lately.

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Professor Carmen HOLOTESCU has conducted innovative research over the last 15 years, in open education (OE), conceiving and building SM learning spaces and integrating emerging educational technologies, OERs and MOOCs in formal/informal learning settings.

She has also been involved in many European projects on new collaborative technologies, to training teachers/e-trainers and participants with different backgrounds, also persons in disadvantaged situations.

In 2007, as an Expert in the Knowledge Economy Project, she was the author of the 1st national recommendations on OE for the Romanian Ministry of Education.

She is a Certified Online Instructor of University of Maryland University College, USA, acting as Online Tutor for 12 years, between 2002-2013. She has facilitated online courses in CS field, working with students worldwide in multicultural settings.

Carmen Holotescu is also the organizer and chair of many national and international conferences, workshops and webinars on OE.

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Luiza VLAICU holds a BA diploma in Social Work and is currently a PhD student in Sociology, with a social work thematic focusing on organizational culture in public social work institutions. She has participated in various social work projects.

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**Alexandru TOPÎRCEANU** was born on October 26 1987 in Timisoara, where I live to this day. I followed the German school Nikolaus Lenau (from Kindergarten to highschool), and then started my studies at the Politehnica University Timisoara (UPT). There, I finished my bachelor in 2010 in computer science, and followed a master in software engineering at the Faculty of Automation and Computers.

Currently I occupy the position of Phd student at the Department of Computer and Software Engineering, UPT, and teaching assistant in the same department. My thesis, which was started in 2012, is entitled “Structural and Behavioral Analysis and Modeling of the Society” and deals with the topics of social networks analysis, network topologies, opinion diffusion, and computer simulation.

My professional activity includes participation at programming contest, like “Noi Info”, where I won 4th and 2nd places in game development; 1st national and 5th international prize at the “Solar Schools” inventics competition. Also, I participated and won, or ranked very good, in many competitions as a student (CEC, iTEC, ACM, BitDefender), and one mentionable accomplishment is the ranking in the world’s top 6 at the Microsoft Imagine Cup competition in Poland 2010.

He worked as a Java software engineer at Continental Automotive for 1 year, and am currently a research member of the ACSA group in UPT, and the Morpheus team, dealing with complex networks and network medicine topics. I teach Android development, Codesign, Computer Organization and Algorithms Design at the Romanian and English sections in the Department of Computer and Software Engineering.

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Technical  
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Dorin Florin NEAGOE – is a good organizational spirit, attention to details, capable to collaborate and interact with the audience, all this gained during the practical activities held during the master “Social reintegration on Criminal Justice” at the rehabilitation center for minors from Buzias.

Sociological study regarding the expectation of the students from Petrov Braca Highschool- Varsac (questionnaire preparation, interviews, preparation of project site, etc.).

Network Administrator in the “Skills needs of graduates and employers. I have gained knowledge in using the computer, different programs and operating systems during the computer courses and seminars.

Good team player, organized, sociable, innovative, I can work with deadlines.

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## MOOCs – some initial considerations

Massive open online courses, or MOOCs, have been expanding rapidly throughout the world since the ‘Year of the MOOC’ in 2012, offering higher education, often free, to millions of learners – especially in developed countries with wide access to the right technology and resources.

MOOC is an acronym; it stands for massive, open, online, course. The course is **massive** because it involves a large numbers of participants, including both instructors and learners who cannot be physically present same time same place around a specific topic of learning. The course is **open** because the material put by the facilitators, the work done by th e participants are accessible to or shared between all the people taking it. It is also open in the sense that it is free. Participants might pay to get a credit through an institution, but they do not pay for participating in the course. The course is also distributed **online** because all the blog posts, articles, tweets and tags are shared online by the participants taking it. MOOCs are planned courses in the sense that they have a start and ending sessions. They have also facilitators, course materials, and participants.

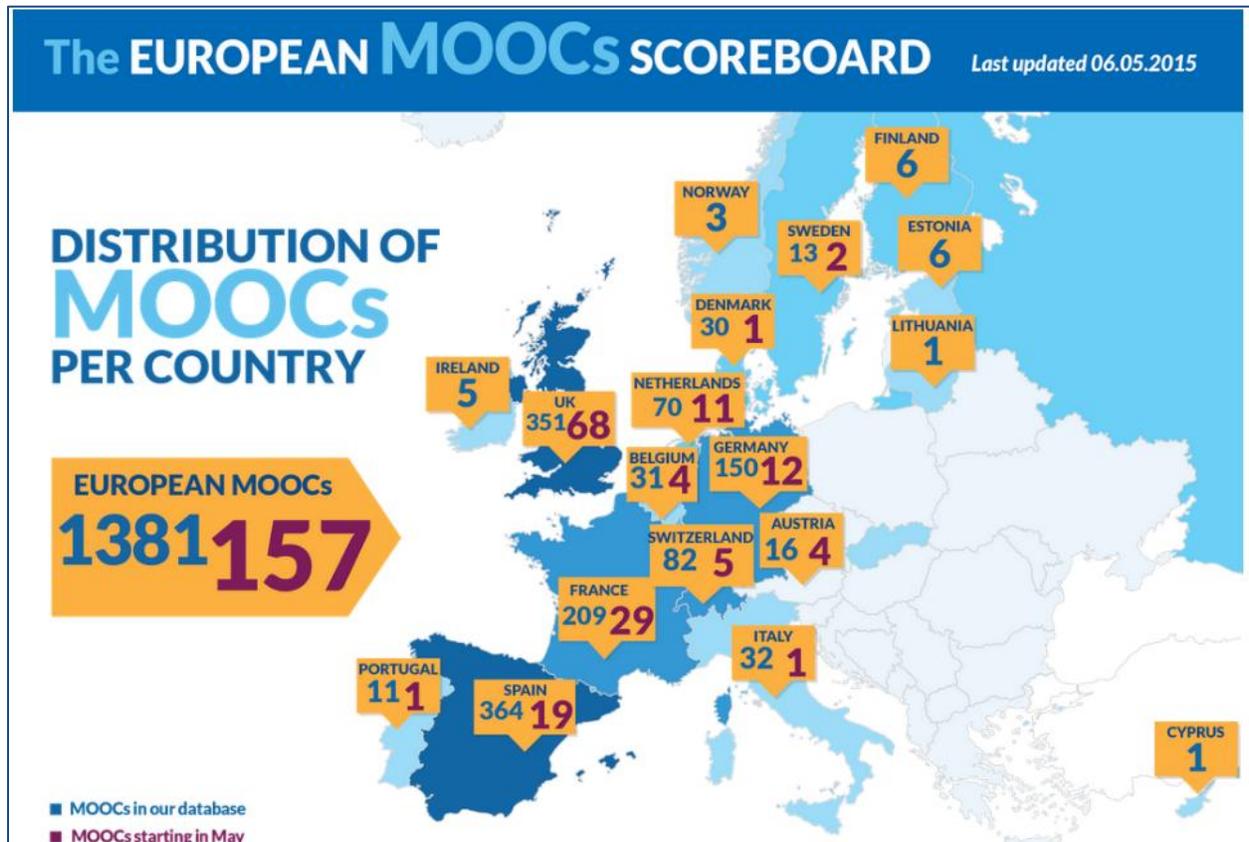
For some, Massive Open Online Courses (MOOCs) are being touted as the latest panacea for higher education. While the hype about MOOCs presaging a revolution in higher education has focussed on their scale, the real revolution is that universities with scarcity at the heart of their business models are embracing openness. Media frenzy surrounds them and commercial interests have moved in. Sober analysis is overwhelmed by apocalyptic predictions that ignore the history of earlier educational technology fads.

While many identify MOOCs as providing direct access to global high quality education, others “detect a new form of cultural imperialism”. “Literature considering MOOCs in a global development context points to two sides of an issue of access and equity. “On one side, MOOCs are hailed as a cost-free access to excellent resources and learning experiences for students in less educationally privileged geographies, notably the rural areas. “Alternatively MOOCs, with their high demands for connectivity, online literacy and English language skills, may be excluding developing world students and privileging learners from the most highly developed educational environments.”

Therefore, from the above short introduction it could be seen the controversial discussions about MOOCs, which are still ongoing. As the development of online education in general still has a long way to go before it is in a position to challenge traditional campuses, we should focus both on challenges and opportunities, from different educational and socio-cultural contexts.

## The Romanian case for MOOCs

According with the next figure, in 2015 there weren't MOOCs provided by Romanian institutions.



Source: <https://www.openeducationeuropa.eu/en/news/european-moocs-scoreboard-out>

One year later, as it was stated in the MOOCS- state of the art report from this project's output **MOOCs in Europe** - report EADTU, June 2016 -

[http://eadtu.eu/images/publicaties/MOOCs\\_in\\_Europe\\_November\\_2015.pdf](http://eadtu.eu/images/publicaties/MOOCs_in_Europe_November_2015.pdf), from

<http://eadtu.eu/home/publications>

Through the 2 chapters about Romania, underlined some recent initiatives:

- **Methods and Models of MOOCs Integration in Traditional Higher Education** by *Diana Andone* cites the article [https://www.researchgate.net/publication/260987116 Integrating MOOCs in Blended Courses](https://www.researchgate.net/publication/260987116_Integrating_MOOCs_in_Blended_Courses)
- **A summer-day's MOOC** by *Sander Schroevers, Hans Seubring-Vierveyzer*, Part-time Academy, Amsterdam University of Applied Sciences (HvA): Analysing case studies of short-term faculty-led international experiences in Romania, Georgia, and the Netherlands, it reports on the process of trying to internationalise the non-mobile student in Higher Education, and to offer a distance MOOC-situated learning alternative for overseas students partaking in selected STIE programmes. The findings may have practicable implications for those who are involved in considering a similar blend of short-term international experiences programmes with open online courses. **Romanian partner:** Facultatea de Business of the Universitatea Babes-Bolyai (in Cluj-Napoca, Romania).
- In addition to that, through the NOVAMOOC state of the art project research paper other initiatives are presents, such **Projects / Studies related to MOOCs in Romania:** (eStudent <http://estudent.ro> ), some MOOCs related events and MOOCs studies [https://scholar.google.ro/scholar?q=MOOC+OR+MOOCs+Romania&btnG=&hl=en&as\\_sdt=0%2C5](https://scholar.google.ro/scholar?q=MOOC+OR+MOOCs+Romania&btnG=&hl=en&as_sdt=0%2C5)

## The Romanian challenges

While the number of students in Romania continues to decrease, universities often fail to equip them with skills needed for employment – and they have two to three times less chance of finding work than those who left school after primary level.

MOOCs now offer more study options than ever before. Still, most universities in Romania continue to offer the majority of their courses face-to-face. Consequently, easy access is most of the time limited to only those learners who live within the areas surrounding the institutions. In the literature there has been a growing realization that a single mode of instructional delivery may not provide sufficient choices, and engagement needed to boost learning performance.

As Romanian higher education system is characterized by decrease in university enrolments, the regrettable rates of dropping out, the demands of the twenty-first century learners, and the need for a more accentuated technological development, therefore is necessitated a “radical shift to new approaches in higher education in Romania”. Furthermore, as most universities in Romania are contact learning institutions, access are largely confined to only those students who live in surrounding areas. Therefore it is more than necessary to adopt a blended learning approach that combines both online and face-to-face experiences to optimize learning in Romanian higher education system.

Thus, in the close circle of academics, the dialogue has started recently on the future of the Romanian university, the importance of catching up with the technological advancement, and responding to the different demands of the new generation of learners.

In fact, the literature emphasises that research on how people learn has adopted new perspectives as a result of the advent of new technologies that affect the teaching/learning process. According to Calkins and Vogt (2013) “Next generation learning” research is informed by:

- A deepened understanding of learning: how, where, and why students (and people of all age) learn most effectively.
- A deepened understanding of learners: what’s required to engage and meet students’ complex, individual needs.
- The recognition that the world has changed: so thoroughly, in fact, that it requires a much higher level of achievement for much higher percentages of students.

In this respect, the massive open online course (MOOC) trend has lately emerged in higher education in the world, and the advocators claim the anytime/anywhere mantra and the principle of multi-access learning that underlie the MOOC movement can attend to learners’ needs for personalization, flexibility, and agency.

Even though MOOCs are in fact standalone online courses, their introduction to the higher education in Romania can be in the form of blended courses designs (those that combine online and face-to-face learning experiences). This is mainly because it is unlikely that the Romanian universities can abandon face to face lectures as the main delivery mode.

However, since the learning styles and requirements of learners differ, it’s mandatory for these institutions to use a blend of learning approaches to be responsive to these differences. So, instead of replacing courses at higher education institutions, MOOCs could enhance those courses. Adapting the MOOC principle to the Romanian university context, a university may use some version of a course management system application to connect all students within a specific department. Through such platform, students can access videos of lectures not just but their group teacher but also teachers of the same subject in the department, track assignments and progress, interact with professors and peers, and review other supporting materials, like

PowerPoint presentations or scholarly articles. At a larger scope, teachers of the same major across universities of the country can collaborate to structure online courses and allow students to benefit from the lectures of not just their own teachers but other teachers in other universities, attending hence to different learning styles. Blended learning merges multiple delivery media that are designed to complement each other and enhance learning. These include face-to-face traditional instructor-led lectures, synchronous online, and asynchronous online modes.

Some challenges should be underlined: To implement a MOOC framework and create a meaningful learning environment a variety of issues need to be addressed; these are mainly institutional, pedagogical and technological factors (Singh, 2003). The institutional factors are mainly related to the preparedness of the organization, the availability of content and infrastructure, and the implementation of a needs analysis to understand learners' needs. The Pedagogical dimension is concerned with the combination of content that has to be delivered (content analysis), the learner needs (audience analysis), and learning objectives (goal analysis). The pedagogical dimension also addresses the choice of the most appropriate delivery method. It is also concerned with whether both the teachers and students have the knowledge required to use new technologies and, possibly, more sophisticated instructional practices. The technology issues need include creating a learning environment and the tools to deliver the learning program. They include also the choice of the most effective learning management system (LMS) that would manage multiple delivery types and a learning content management system (LCMS) that catalogs the actual content (online content modules) for the learning program. Technical requirements, such as the server that supports the learning program, access to the server, bandwidth and accessibility, security, and other hardware, software issues are also to be dealt with.

## **Short conclusions**

Romanian higher institutions need to adopt reform strategies that are mainly informed by students' needs. These institutions need also to provide via multi -access learning delivery modes. In this respect, the multi - access learning framework that underlies MOOCs supports student choice and agency. When talking about MOOCs as an educational technology, the primary focus should not be the technology itself, but rather the pedagogy. That is to say, we should first specify the learning experiences we want to create, the learning outcomes we want to achieve and then enable them with technology. Consequently, the teachers' needs for professional development should also be under investigation.

From one point of view, the problem is that the Romania regulations are outdated, and were imposed at a time when MOOCs as a method of distance education did not exist.

Moreover, according with the UNESCO's Guide entitled "Making Sense of MOOCs: A Guide for Policy-Makers in Developing Countries", we can also consider their recommendations regarding the huge potential of online learning and MOOCs:

- First, open and online education is seen as an innovation driver for improving education and as a basis for transforming secondary and higher education systems. In this respect, MOOCs are excellent for promoting lifelong learning. As courses offered free-of-charge to any number of people, anywhere and anytime, MOOCs enable access to higher education and beyond for people who cannot afford a formal education and are disadvantaged. In this respect, MOOCs may be regarded as contributing to the democratisation of higher education.
- Second, MOOCs can reduce the disconnect between the skills and aptitudes of the majority of university graduates and the needs of the industry sector in many countries. This disconnect is triggering huge unemployment amongst youths and adults, particularly women. MOOCs can be useful in providing job-oriented training and skills development, and we are already witnessing a number of policies and initiatives in certain emerging and developing countries strategically leveraging online learning, including MOOCs, for workforce development and upskilling programmes. However, issues related to credentials for MOOCs remain a challenge. This is an area demanding closer, multi-stakeholder collaboration, involving governments, higher education institutions and the private sector.
- Third, MOOCs emerged from the open education movement. As such, they enable free access to high-quality content and resources, which might be too costly for higher education institutions in developing countries to produce. Use and reuse of MOOCs is therefore an important consideration in developing a national strategy. However, it is crucial to adapt such resources to various contexts.
- Last but not least, through the Guide there are also emphasized two critical components for governments in developing countries to leverage the full potential of online learning and MOOCs: developing teachers' competencies to effectively use ICT; and embedding a robust quality culture in the design and delivery of online courses

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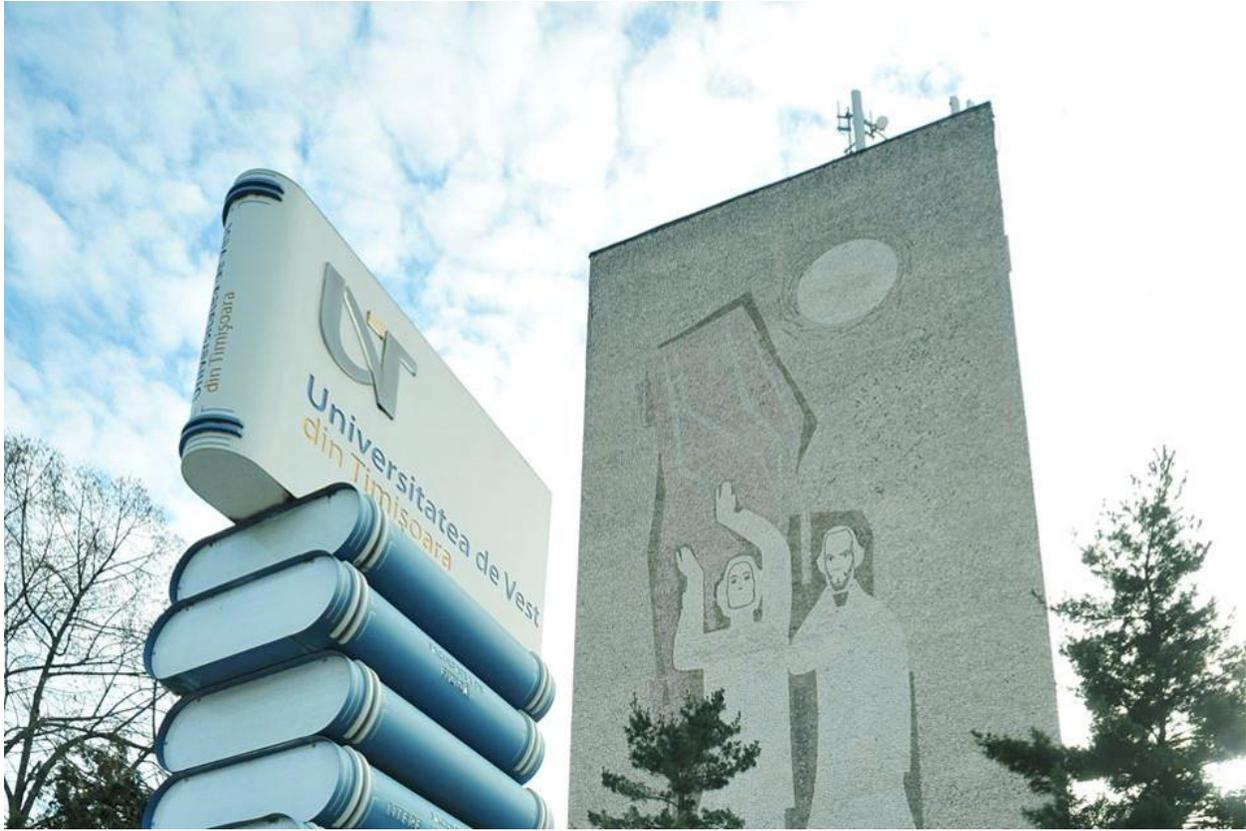
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This project is supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS – UEFISCDI, project number PN-II-RU-TE-2014-4-2040