# **MOOC'ing in Belgium**

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#### **Abstract**

This paper aims to review the MOOC movement in relation to higher education in Belgium. Firstly, I will briefly outline the amount and nature of Belgian universities, drawing from official statistics and eight years of personal experience as both a student and employee. After this, the paper will focus on the university of Leuven, which is the highest ranked Belgian university. A review of some general characteristics of this institution hopes to highlight its agreement with the values of open courseware, or MOOC's specifically. However, Belgian activity in the development of MOOC's has been rather modest at the time of writing. Conditions to pursue higher education are already ideal, and this paper will demonstrate little apparent need to engage in a massive, open, online education. In other words, the lack of obstacles is in this case the biggest impediment to full engagement. Yet the growing desire to innovate which originates in individual lecturers will point out that there is no lack of enthusiasm. Next to this, a case study will serve to show that for some courses, a MOOC would be the natural evolution in the provision of higher education with a larger scope. The conclusion of this paper hopes to be an invitation to academics abroad to unite in an endeavor of international scale, providing high quality dissemination of knowledge in a critical, collaborative platform which surpasses the current potential of the isolated MOOC.

#### Introduction

Belgium is officially a trilingual country, each group of speakers home to geographically distinct areas. Flanders is home to the Flemish population, next to which there is a French-speaking community of an almost equal size, and a German minority. The Flemish and French parts each have their separate institutions for higher education and own legislative power over them. The German speakers usually integrate into either of these communities. Both the Flemish and French community have seven recognized universities. Two of the French and four of the Flemish institutions are currently ranked in the top 200 worldwide [10]. These institutions offer degrees ranging from bachelor's up to doctoral and postdoctoral studies, following the Bologna agreement which has standardized education in Europe. Bachelor degrees are offered in the language relevant to geographical location, some subsequent studies are also offered in English to appeal to students from abroad. Most degrees at higher education institutions in Belgium are readily accessible to anyone who has successfully graduated from secondary school. Some degrees such as medicine may require additional entrance exams.

The fees for studying at Belgian universities are set by the government, and usually amount to about 600 Euros per year in Flanders, and slightly more in the French community.

Leuven is a city to the east of Brussels, the capital of Belgium, and is home to Belgium's most highly ranked university [10]. With approximately 30,000 residents living in the centre, it is a relatively small city boasting a long history as 'place to be' for cloth trade in the Middle Ages. Founded in 1425, the university located here will be the focal point for this paper.

### The KU Leuven

The university of Leuven, or KU Leuven, is in fact a member institution of the *KU Leuven Association*, which is a form of networked organization for universities and university colleges usually on national level. This particular association accounts for 90.000 students, which is 43% of the total Flemish student population, spread across 23 Belgian cities [8]. Next to accredited courses from Bachelor degrees to postdoctoral programs, the KU Leuven organizes and is involved in the organization of many lecture series, short and long training courses, postgraduate workshops, lifelong learning initiatives,... With an academic staff of approximately 7,000 people the KU Leuven caters education for approximately 40,000 students; 45.3% of these are enrolled in one of the 55 Bachelor programs, 30.2% in any of the 132 initial Master's [8].

In terms of ranking, the KU Leuven is the most highly ranked Belgian university, and in the top 100 worldwide [10, 12]. As a European university, it is among the top 15 [12].

Despite its size, higher education in Belgium holds up well in international comparison. In

### **Good times**

terms of technology, it can be said that all institutions in the country actively engage with technology in teaching and research. However, a MOOC has not been high on the Belgian agenda. The KU Leuven's characteristics do promise a lively engagement in the MOOC movement, as indicated below, but the level of active involvement has been low thus far. As this paragraph will show, Belgium does not encounter many of the named impediments in bringing education to all, which other institutions have to face. In fact, conditions are ideal. Firstly, the development of MOOC's at specific institutions may be hindered by contextual challenges [2,5], which are not applicable to the Belgian situation. The basic structural provisions for e-learning in terms of electricity, hardware, internet access, safe and accessible classrooms,... have been met. The university offers high-speed internet to all students, on campus and in the university residences, and special arrangements for students in privately-owned housing are easily available. Government statistics show 77% of Belgian families had access to the internet in 2011 anyway [4].

Student mobility figures show a lively interest in international study. More than 15% of the KU Leuven students have come from abroad, 3,750 of which come from within the European Economic Area (EEA), and an almost equal amount from outside, particularly from China, India and the US [8]. Admission of foreign students is determined by the individual institution, and will involve checks of the students' prior qualifications and linguistic ability. Active participation in the Erasmus program, for example, means about 800 students came to Leuven in the 2011-2012 academic year through this initiative enabling study abroad for one

year. Also, the KU Leuven had 615 outgoing students in that year [8]. As the capital of Europe, Brussels is a point of international focus, appealing to a wide variety of cultures and nationalities.

Linguistic and cultural diversity of the Belgians certainly provides an additional strength. Next to being a trilingual country, the pervasion of the English language through media and online is very strong. Most Belgians will have some to excellent knowledge of English, as it is also compulsory in secondary schools. For the academic world, it is certainly the case to speak of English as a *lingua franca* of research, and increasingly, of teaching.

The mission statement of the KU Leuven also resonates well with the idea of MOOCS in its aspiration to be 'a place for open discussion' which encourages 'personal initiative and critical reflection' and to 'actively participate in public and culture debate and in the advancement of a knowledge-based society' [8].

In its international strengths, Belgium could easily provide a thriving MOOC with global appeal. Many existing MOOC's specifically attract students abroad, next to an older generation in lifelong learning activities. Belgium's ageing population would be another motivation and reason to 'MOOC *en masse*' and connect with peers limitlessly.

There are plenty of reasons why Belgium can be fertile soil for MOOC's and yet the actual involvement is low to this day. The following paragraph hopes to touch the surface of an explanation for this unexpected situation, by reviewing some of the reasons often heard in the development of MOOC's, and how this would apply to the Belgian context.

## Too much of a good thing

The MOOC movement can be characterized by an altruist endeavor to bring education to all. Obstacles to this could be firstly the geographical difficulty of reaching a location which provides high quality education. This could be the case in the United States, which covers a vast territory often forcing choices to move away from home and family to pursue higher education, or for students in African or Asian countries where travel simply might be difficult. Belgium is a small country, and the roads and public transport infrastructures are relatively efficient and affordable. In Leuven, people can easily get around on foot and by bicycle, and students or staff of the university can take the bus around the city for free.

Another often-heard obstacle to pursue higher education are the rising tuition fees, to which a MOOC of course aims to provide a solution. A student of Arts and Humanities, for example, would however pay a total fee of €600 (on average) to enroll at a Belgian university for one year, versus £7,000 in the UK for a similar degree, and a more varied range of fees in the US, some ranging over \$30,000. Though these amounts do not include accommodation and other necessities, but the KU Leuven also offers various partial funding solutions for both the fees as well as reduced-fee student housing. The cost of a room in the city centre will be approximately €250 in non-subsidized university residences, and up to €600 in the private housing market.

The basic conditions to pursue higher education in Belgium are pretty ideal in comparison to other countries. The typical motivations 'to MOOC' have therefore little relevance in many European countries as compared to the US for example, since the socio-economic context is entirely different [3].

However, these are benefits from the students' point of view. The advantage of MOOC engagement from the institutional perspective are not often stated so explicitly. Through enabling a MOOC, academics could impact a much larger student population and if run successfully, sustain a community of crowdsourced knowledge, as well engage in a critical collaboration with peers. The following paragraph will indicate through a practical illustration why the development of a MOOC could prove to be a useful enterprise even though the needs are not immediately apparent.

# Case study: Online Publishing

The Master's Degree of Cultural Studies has been offered at the KU Leuven since 2007. Since then enrolment has increased to over 200 students in last academic year.

Approximately half this number have taken the course 'Online Publishing' last year, which has grown from an option to a core 6-credit subject. Not all student participants are pursuing the MA of Cultural Studies; the course can still be chosen as an option in related degrees, the MA Information Management being the highest subscriber (20% of the total number last academic year).

The course aims to familiarize students with state-of-the-art online publishing and digital culture, in a practical manner but at the same time seen through the lenses of relevant theory, interpreting cultural issues and analyzing social impact. The lessons start in a traditional lecture mode in the first three weeks, followed by a series of workshops in function of one of the exam assignments (the building of a website in small groups). The lectures offer the core theoretical framework delivered through the discussion of concrete digital artifacts and phenomena of online publishing. This takes place in a traditional lecture hall, with a large projection screen at the front. Most students (still) take notes on paper, but increasingly many of them bring in their personal laptops and other mobile devices. For the last two years of the course, these lectures were video recorded in-class and published through Videolab, a streaming media service powered by the KU Leuven association. The workshops following the initial lecture weeks are in place to meet the practical aims of the course and focus on a hands-on approach. Computer rooms are booked outside typical lesson hours to allow students the opportunity to work together, while the lecturers circulate periodically during these drop-in sessions to help and answer questions. The students do a lot of self-study with help of the documentation on the *Blackboard* virtual learning environment, which includes how-to videos, useful links, and 'tips and tricks'. To merge theory and practice, there is also a mid-term literature class where students read four core texts of digital culture prior to the lesson moment, during which they then apply the theoretical foundation to the concrete subjects they chose for their websites. Qikpad is used during this lesson, which is a free online collaboration tool: all discussion groups take notes of their analysis and summarize instantly through a text document made and shared online. The resulting summary is saved and published to the Blackboard course later on. Any students who were not able to attend this class are asked to comment on their group's analysis via the course forum.

Throughout the course, there is a focus on current digital artifacts to highlight theory and analysis, and ongoing news in online media and digital culture. The final mark of the students is made up of three deliverables: the website which they have made in small groups, followed

by a presentation to pitch this product, and a paper which they have written individually on a subject of their choice (but still relating to the overall theme of the course). The formal minimum requirements of these assignments are laid out beforehand, though the students enjoy a relatively high degree of freedom in choosing the contents and methods of their concrete targets. For example, the website they make by the end of the course needs to be technically perfect in compliance with one of the requirements, but the degree of complexity is their own choosing. They can choose any platform to use based on the level of confidence, commitment and capabilities in their group. *Wordpress* and *Drupal* are the two platforms suggested and supported in the course.

The popularity of the degree, as well the course itself, is growing and therefore student numbers are rising in accordance with the general increase of the student population. The qualitative assessment (the production of a website as group work, followed by a presentation, and an individual paper assignment) and weekly face-to-face moments of this course are proving hard to maintain for this growing number of students. Examination could take place more efficiently with instruments such as a multiple choice test, but this is felt to be unsuitable to the nature and level of this course.

To provide this course as a MOOC would not only be the solution to the growing maintenance issue, it would also be its natural development. Firstly, the theme of the course online publishing and digital culture - is of course aligned with the MOOC domain. Next to this, the course values team work as well as independent performance. In terms of assessment, two things will already change for next year's generation of students taking the course: they will have the choice between writing a paper or a blog to complete the individual assignment, and more peer evaluation will be put in place to assess the performance of the website building in groups, and each other's individual writing task. Both of these measures would be well-suited for a MOOC. Also, self-study and independent work is heavily encouraged during this course, which agrees with user surveys indicating that over half of open courseware consumers are self-learners [9]. Independence of the MOOC student is certainly important, but this is a common expectation for higher education students anyway. The lectures given during the course are already being recorded and published online, but in a closed learning environment. All digital artifacts, online publishing phenomena and provided documentation such as PowerPoint's and how-to videos could be easily distributed over a MOOC platform as well. The workshop mode of the course could be a virtual moment, asking students to collaborate over the web in the construction of a website, as well as delivering support fully online via chat sessions, a forum and/or email. Currently, the students are already asked to form their own groups for the website assignment via the forum; often collaborating with peers they have never met before, bringing different backgrounds and skill sets to the table, but uniting in the same topic. Many tend to arrange meetings via email and social media such as Facebook.

It seems the contents and method of this course would be well-suited for a MOOC. Its characteristics agree fully with the nature of open, online courseware. The 'massive' feature poses some concern, however, and points towards the biggest need of MOOC development. To enable its success, a MOOC needs a group of academics to collaborate. The next paragraph will indicate why this would benefit the knowledge disseminated in a MOOC, as

well as the individual academic involved in its organization. Suffice to say here that a growing student number goes hand in hand with a larger team of staff maintaining the course. It is not advisable for one lecturer to engage in the organization of 40,000 students (Strauss 2013). Firstly, this creates a truly great workload for a single person which is unmanageable considering the many other responsibilities and requirements imposed on the modern academic. Secondly, cooperation allows a quality control on content, method and management which will improve a MOOC even beyond the traditional course. This cooperation can of course be done inter-faculty or inter-university members, but a team of international academics is a much more interesting intellectual endeavor. A MOOC student population is rarely limited to its national borders, but neither should the leading team enabling the course be. Consortiums on European scale or beyond would be a meaningful solution, for example [3], though a global reach would be even more exciting for all parties involved. It will improve accessibility and participation in the course, and boost growth of the professional community for students and lecturers alike.

### Aiming for better

The conditions to actively engage in the MOOC movement are ideal in Belgium. However, the need has thus far not been a great one, particularly because the often-heard rationale for MOOC's focuses on the country-specific students' perspective. Distance, cost and flexibility are easily overcome in Belgium. Yet the aims and nature of the KU Leuven, and particularly the course of Online Publishing discussed above, resonates well with MOOC's, validating a current trend as its natural development. Moreover, this change in course delivery could mean greater opportunities for academics and the enhancement of knowledge. A large knowledge market is brought forward and sourced simultaneously, by opening up quality courses to a larger, more varied population across the world.

It is certainly true that Belgium is geographically not the most complex destination to reach, but the opportunities are never situated in a single location anyway. The greatest possibility of bringing quality education lies in international academic collaboration This fits both contemporary society and modern learning. The 21st century student is a connected one; able to consult literature and connect with peers across the world in a matter of seconds. This is essentially what a MOOC aims to do, bringing a global community of learners together in one virtual whole, but it is still just one confined unit of learning. Opportunity for true educational progress today lies in combination: MOOC's organized by different institutions or networks, bringing these patches together in the quilt of one coherent degree. Bringing education to all is a noble pursuit to help those seeking out knowledge, but formal degree certificates are prerequisites for employment in today's world. To help students advance professionally, MOOC's would firstly require correct and widely applied accreditation, and recognition of differently obtained credits in one body. MOOC'ing would then evolve to a global university, available at the fingertips. However, some MOOC's which are available as accredited courses today, are less cost-effective for students because of formal identity checks by independent companies and related costs. Perhaps the answer is not to adapt MOOC's to our existing accreditation, but to grow a greater cultural recognition of MOOC certificates and degrees on resumes worldwide.

Not only courses and credits should be assembled in a coherent whole. People, academic and non-academic, need to operate together to achieve maximum impact. Firstly, this ensures a critical view on each other's content delivered to students, and method to do so. Open Educational Resources (OER) are crucial elements here, and initiatives such as the Open Course Library, linking courses to available open courseware, can enhance MOOC content and participation even more [9]. This project aims to address one of the current difficulties of open resources: there are so many it is difficult for lecturers to find the appropriate resource, and students alike, sifting through endless material which is irrelevant or inadequate in level of quality.

The KU Leuven is actively concerned with open courseware (OCW); in July 2010, the institution adopted a policy for open content leading to the publication of an open series of KU Leuven courses, using the existing website platform of the university. All course content is available online, complete with study guides and exercises. On the basis of this policy, the leading lecturer of the course 'Online Publishing', taken as case study of this paper, is now a core member in the OCW Consortium (opencourseware.eu).

Collaboration of lecturers could help to bring in pieces of the puzzle together in one MOOC, organizing and structuring the experience for the student in the same effort. Of course, the platforms offering open courses are filters of quality as well. Many impose contractual obligations to keep content correct and updated.

In bringing minds together, the viewpoints of different institutions and cultures would merge in one enhanced unit of knowledge. The MOOC could then truly provide a platform for meeting and cooperating with other growing professionals, both as students and staff. A study of the MIT Open CourseWare Project showed that academics did feel the positive effects of this process, resulting in better content and better connections [9]. Also, they felt it improved their intellectual recognition because of the wider audience; similarly the KU Leuven could increase its global outreach by taking a course beyond the Belgian border - virtually. As time goes by and more institutions are positively disrupted by MOOC's, the impact of this decision on 'getting out there' will unfortunately decrease.

### **Conclusion**

Bringing education to all will be most meaningful when the endeavor is shared by academics on an international level. The days of sole pioneers and missionaries are no longer relevant nor feasible; the wisdom of crowds is what matters in today's interconnected world. This paper hoped to show that the main motivations in the development of MOOC's form no immediate needs for higher education in Belgium. At the same time however, situational requirements to actively engage in this movement are ideal. The nature of the KU Leuven and one of its courses at the Faculty of Arts and Humanities given as example in this paper shows how a MOOC would even be a natural evolution. Yet there is an even bigger potential for the advancement of education to pursue here. MOOC'ing is only the first step. Powerful and empowering education can be realized through the combination of isolated MOOC's in coherent degrees or boosted cultural recognition of individual certificates. This and an increased quality of education can be established through a joint effort of individual academics, supported by a consortium of institutions. This remains the greatest challenge, to

entice academic partners beyond the border to join in a challenging, innovative process within a functional framework which has international appeal. The concept of a global university emerges at the virtual horizon, transcending local limitations and local needs (or lack thereof), answering to a higher pursuit of intellect fit for the modern day. A united cooperation of academics around the world could launch this, though it requires reaching out beyond the borders of the known, both geographically and intellectually. In today's society, that attitude should exist almost by definition anyway.

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