MOOCs for Norway: new digital learning methods in higher education

Berit Kjeldstad*1
*Norwegian University of Science and Technology, Trondheim, Norway

Background

Norway has a long tradition of ICT (information and communications technology)-supported learning through different national programmes of lifelong learning. In 2015, 7% of the total number of students in HEIs (higher education institutions) in Norway are enrolled in online distance studies. In addition, an increasing number of full-time campus students are partaking in online courses. More and more HEIs have developed strategies for digitalization of the whole education portfolio. The proportion of flexible education offered is higher at smaller institutions than at larger traditional universities.

Still, there is the question of quality in online courses, and of academic culture and digital competence among faculty. The Norwegian ICT Monitor of 2014 [1] thus concluded that both students and staff use ICT for teaching and studies, but with little variation, and primarily as support for traditional instruction and as a means of communication. Therefore the need is felt for institutions to develop more creative use of technology enhancing learning.

The first MOOC (massive open online course) by a Norwegian HEI institution, designed by Professor Arne Krokan at the NTNU (Norwegian University of Science and Technology), was offered in September 2013. One year later, there were seven courses, and, in August 2015, 20 MOOCs were offered. However, as is evident from the national MOOCs portal, most of the courses are provided in Norwegian as they are closely connected to already existing courses at HEIs for Norwegian students [2]. For obvious reasons, this limits the number of participants, and none has a very high number of students.

However, the number of international MOOCs in Norway is increasing. Several Norwegian universities have contracts with different international MOOC platforms to be able to distribute their MOOCs worldwide. Examples are Coursera and Future Learning, as well as the Canvas Network which is used with an open code. The MOOCs are both ‘high-cost’ and ‘low-cost’ with different purposes. Most of the MOOCs produced in Norway are for campus and long-distance students.

The majority of MOOCs offered by Norwegian HEIs provide exams and credits which can be included in degrees. However, there has so far not been any

1Email: berit.kjeldstad@ntnu.no
research showing success rate for these students. In many cases, remote students use the MOOCs as an opportunity to further develop their career. In general, they are highly motivated students.

The above circumstances show that the Norwegian government has developed a unique interest in promoting ICT-supported education. This was further manifested when the government set up the Norwegian MOOC Commission in 2013 (with 11 members). The mandate of this Commission was to map the development of MOOCs and investigate possibilities and challenges as well as to provide Norwegian authorities and educational institutions with recommendations. It delivered a NOU (Norwegian Official Report) on 16 June 2014 [3].

Against the above background, the present chapter presents some significant considerations and recommendations of the Commission [4].

Considerations of the Commission

Throughout its work, the Commission had to consider a number of significant issues, among them:

(i) The definition of MOOCs
(ii) The participants in MOOCs
(iii) Quality assurance in MOOCs
(iv) Competition and collaboration.

The definition of MOOCs

The Commission spent a lot of time defining what MOOCs are. For instance, if courses are web-based, online may or may not entail that the entire learning processes take place synchronously. Also there are different opinions of what it means for a course to be massive. Some emphasize that the course must have a massive number of participants, whereas others stress the growth potential due to the scalability of the courses.

An open course can be understood as a free course, or as a course that is open to all by not requiring special previous knowledge. Many also link the openness criterion to learning resources, i.e. whether courses use openly licensed or copyrighted academic content.

Finally, the course concept is also ambiguous. Certain people believe that there must be set start and end points. Others emphasize that the course leader role should be well defined or that course participants must complete a concluding test and thus document what they have learned.

The Commission defined MOOC in a broad way by including offers that are web-based, scalable with regard to the number of participants, and open. This means that the Commission included courses with various degrees of transparency, and courses with and without course fees. The Commission included also courses with qualification requirements for both continuing and further education. It also looked at credit-awarding degree programmes lasting several years.

In the meantime, various types of MOOCs have evolved. They have some of the characteristics mentioned above, but not necessarily all of them.
Internationally, several MOOCs have been developed with exams and credits that may be included as part of a degree programme. SPOCs (small private online courses) are another example of evolving MOOCs, with restrictions on the number of participants.

Courses are also developed where the main focus is on experimenting with content and pedagogy, as well as with the objective of designing more efficient digital learning methods. Some offers emphasize the importance of higher degrees of social interaction as a learning tool, whereas others facilitate individualized learning processes.

In recent years, there has been a rapid development in the use of technology for learning purposes. The Commission came to the conclusion that MOOCs are part of this development and that it will continue with unabated strength in the coming years. The Commission believed that the recommendations in the report would be more useful if a definition is made that emphasizes the overall common features of MOOCs. In terms of the Commission’s suggestions, this also includes “similar provisions”, i.e. MOOCs with exams and credits.

**The participation in MOOCs**

Another significant issue related to MOOCs is who the participants are. This is important for the different strategies behind the number of increasing MOOCs in several countries. The Commission defined two main groups of participants.

The first group consists of all of the participants who are not regarded as students. They are called learners by some. However, many of these are students at their home university just searching for additional knowledge. Few of these complete these courses.

The other group is defined as students, joining MOOCs with “similar provisions”. They have a much higher completion rate. Some of these students seek credits that can be included in degree programmes at their home universities. These courses are highly suitable for distance learning and allow for a more flexible teaching approach for campus-based students. Thus MOOCs are increasingly being applied as part of campus education. This shows that technology facilitates other ways of organizing educational progress and other contents, thus making blended learning possible by combining the best from campus education with new types of web-based courses.

**Quality assurance**

Robust processes for assuring the quality of HE (higher education) is a fundamental requirement for trust in and recognition of qualifications. In some cases, MOOCs seem to challenge the traditional mechanisms for quality through flexible learning. But as the concept of MOOCs develops, the courses become more structured and organized. This leads to better systems of student and teacher contact, peer reviews and special learning objects depending on analyses of the student’s progress (learning analytic methods).

It is equally important that quality assurance procedures do not act as a barrier to the emergence of creative and innovative pedagogical developments and course design. To go a step further, digitalized learning and teaching modes offer the opportunity to bridge procedures of quality assurance used in research
and in education. In the area of research, peer reviews of content (and conduct) are institutionalized procedures. Teaching and learning in digitalized formats allow *ex ante* peer reviews of course material, and this should become an integral part of quality assurance of online provisions. This can add further to the quality of learning and teaching across our HE systems [5].

**Competition and collaboration**

Norwegian HE distinguishes itself from many other countries, insofar as it is mainly funded by the government and is free of charge for the students. However, authorities’ demands for cost effectiveness are also applicable in Norway. The Commission therefore felt that increased competition from abroad and more competition among Norwegian institutions could lead to quality development and that Norwegian institutions should be able to provide MOOCs for the international education market. MOOCs could lead to changes in how the institutions organize their own education and how MOOCs are used in dedicated programmes and teaching plans.

However, the technology used to deliver MOOCs also enables and facilitates a more collaborative organization of education and counselling. The Commission therefore found that the MOOC development requires a strengthening of instruments for increased co-operation, sharing of work and specialization in the HE sector. It should also lead to increased co-operation between universities and university colleges and the labour market.

**Recommendations of the Commission**

**Recommendations requiring funding**

A major conclusion of the Commission was that the development will not proceed quickly enough if the institutions themselves have to carry out the necessary changes. It therefore argued that national authorities must facilitate increased digitalization and support the institutions’ work in developing MOOCs. It suggested a national initiative over a five-year period amounting to an annual total of €15–45 million.

The national initiative suggested giving first priority to provide HEIs in Norway with access to one or more MOOC platforms adapted to Norwegian and Sami languages. In addition, it was proposed that a central support function should be established to assist the development of relevant educational and technological skills at HEIs.

The second priority was the emphasis on research-based knowledge development regarding the use of technology in HEI. Therefore the Commission proposed the establishment of an overall national research programme for this purpose. In addition, it suggested the creation of a community for research-based knowledge development focusing on learning analytics. As a result, a respective centre was inaugurated in 2015 at the University of Bergen.

The third priority of the Commission was the granting of public funds for a major public initiative regarding the expertise of using MOOCs. It was proposed to distribute the funds in various ways managed by the public authorities. In addition to the funding of teacher education, the Commission proposed that
similar funds be allocated for other governmental tasks in health and social care. The total amount suggested was €7–50 million.

**Recommendations not requiring funding**

The Commission also made recommendations that did not require additional funding. For example, the Commission recommended the promotion of MOOCs through a dedicated national portal. In addition, a Scandinavian co-operation was suggested aimed at a joint initiative to promote Nordic MOOCs internationally.

The Commission also stated that Norwegian authorities should work actively, both domestically and internationally, to promote the principle of open digital learning resources and open access in HE. It therefore argued that MOOCs should be free of charge, and that it should be possible to incorporate MOOCs into the current degree system of both Norwegian and foreign institutions. Consequently, the Commission did not see any need for changing the Norwegian regulations regarding accreditation and subject recognition. Furthermore, it was suggested that Norway should start trials to admit applicants not fulfilling requirements for admission to ordinary HE to MOOCs with credits.

The Commission believed that there is a need for stronger incentives to increase the quality in teaching, for more innovative forms of learning and for strengthening the digital skills of employees in the HE sector. Hence it recommended a review of the policy instruments and incentive schemes regarding education at the individual, institutional and national level.

In the view of the Commission, a particular interest should also be directed towards the handling of personal information in MOOCs with respect to digital assessments and exams. Furthermore, the Commission pointed out the need to consider more closely questions relating to copyrights and licensing in order to make it easier to develop MOOCs.

The Commission had been asked to formulate special recommendations to HEIs in Norway more generally, i.e. beyond specific issues of MOOCs. The major advice concerned (i) quality issues in flexible and web-based education, (ii) the need to develop institutional strategies for improving employee skills regarding the use of technology in education, and (iii) the improvement of students’ digital skills. In addition, the Commission presented a new look at innovative types of educational assessments and exams, thereby stressing that a universal design would improve availability for all students. Therefore the Commission argued that Norwegian HEIs should produce more open digital learning resources.

As many MOOCs are becoming regular courses, the question of documentation of competence achieved will become more and more important. Consequently, the Commission recommended that a special task force should be established which looks more closely into these issues, particularly regarding applicable regulations for accreditation. It was pointed out that Norwegian institutions that co-operate in awarding joint degrees must satisfy the criteria for accreditation of study programmes set by the Norwegian accreditation authority (NOKUT). Quality assurance systems should comprise courses given by collaborating institutions.

Since a student who has completed MOOCs with exams and credits at an accredited institution in Norway will be entitled to exemption from equivalent
exams at another institution, the Commission also concluded that there is a need to examine how the institutions’ practices of accrediting subjects can be improved. Furthermore, the Commission stated that MOOCs without exams and credits could be viewed as a mode of skill acquisition that is not necessarily intended to be incorporated into a degree system. Skill acquisition outside the current Qualifications Frameworks and the formal education system can take many forms; there is a need for a comprehensive assessment of the state of affairs. Different forms of skills should be assessed in an international context.

Concluding remarks

It is an open question how MOOCs will change HE in Norway. One important issue concerns the quality norms for web-based education. As mentioned in the introduction, Norway has a long tradition on flexible education. There are norms set for this type of education, which were revised in 2011; they constitute a set of quality standards that are expected from providers of web-based educations [6].

Lessons can also be learned from the Norway Opening Universities, an administrative body under the Ministry of Education and Research [7]. It funds development projects addressing the use of technology for learning and flexible education. It is concerned with the significance of strategy, management focus and organization regarding quality. In this respect, it is very important for quality that the development and implementation of educational programmes have a dedicated staff with diverse but complementary competences. As a consequence, academic employees, administrative personnel, representatives of IT departments, and other employees with technological and digital support skills should be well qualified in this domain.

Finally, it should be pointed out that MOOC development has become an integral part of an open and accessible policy that has an impact on HEIs in general, but also on individual colleagues. Education has become more transparent because tools and content became more available for everybody. In this way, open access and open courseware policy has been strengthened. The MOOC development has created new opportunities and challenges. If Norwegian institutions are to stand out in increased competition, they need to have, according to the Commission’s recommendations, the innovative ability and capacity to utilize the opportunities provided by MOOCs. The Commission believed that the MOOCs should lead to changes in how the institutions organize their education and should thus contribute to increased quality and relevance in their provisions. Teaching skills and innovative education should be highly recognized among institution leaders and academic colleagues. They should be considered equally important as research skills and innovative research.

References

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