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# MOOCs for Flexible and Lifelong Learning in Higher Education

## The Struggle from within Loosely Coupled Organizations?

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In this paper, we take a closer look at the development of Massive Open Online Courses (MOOC) in Norway. We want to contribute to nuancing the image of a sound and sustainable policy for flexible and lifelong learning at national and institutional levels and point to some critical areas of improvement in higher education institutions (HEI). 10 semi-structured qualitative interviews were carried out in the autumn 2020 at ten different HE institutions across Norway. The informants were strategically selected among employees involved in MOOC-technology, MOOC-production and MOOC-support over a period of time stretching from 2010–2020. A main finding is that academics engaged in MOOCs find that their entrepreneurial ideas and results, to a large extent, are overlooked at higher institutional levels, and that progress is frustratingly slow. So far, there seems to be little common understanding of the MOOC-concept and the disruptive and transformative effect that MOOC-technology may have at HEIs. At national levels, digital strategies, funding and digital infrastructure are mainly provided in governmental silos. We suggest that governmental bodies and institutional stake holders pay more attention to entrepreneurial MOOC-initiatives to develop sustainability in *flexible* and *lifelong learning* in HEIs. This involves connecting the generous funding of digital projects to the provision of a national portal and platform for Open Access to education. To facilitate sustainable lifelong learning in and across HEIs, more quality control to enhance the legitimacy of MOOC certificates and micro-credentials is also a necessary measure.

## 1 Introduction

In Norway, the interest in Massive Open Online Courses (MOOC) in higher education (HE) emerged as a consequence of global trends in open online education around 2010. Early on, digital educational enthusiasts Krokan [18], Haugsbakken and Langseth [11], and Hjeltnes and Horgen [13] embarked on independent learning journeys out of self-motivation, followed by national government bodies, as well as leaders in higher education institutions, who outlined digital strategies and guidelines [23, page 5] and funded a series of MOOC-related projects [16].

Some ten years later, Tømte, Laterza, and Pinheiro [27] reviewed national research literature and strategic documents on MOOCs and found that the MOOC-concept is still contested in Scandinavia. Their findings are linked to different perspectives and tensions among academic, administrative and ICT staff at institutional levels and to some extent government involvement and engagement with MOOCs at HEIs. As compared to the rest of the world, they find that Scandinavian MOOCs have developed at their own pace within different national and local contexts. One effect is more attention to teaching and learning, with some spill-over effects on campus-based programs. Tømte, Laterza, and Pinheiro [27] also describe Norway as the only Scandinavian country that has provided a national strategy and systematically funded MOOC-initiatives in HEIs. Nevertheless, and despite a series of Norwegian governmental initiatives related to digitalization strategies and project funding, we are concerned about the adoption of the MOOC-concept at both governmental and institutional levels. A part of this concern relates to how stakeholders in Norwegian higher education institutions (HEI) have understood and acted upon the MOOC-concept.

In this article, we will define the MOOC-concept close to its original description and later international development [15]. By these definitions, MOOCs are online courses provided by HEIs on an open EdTech platform and made available in large numbers. Anybody irrespective of their geographical location can register and get access to the content and receive a certificate or some form of formal accreditation after completing a course. *All* content – instructions, learning objectives, learning materials, tasks and assessment – is designed and completed prior to the course start. The course content is mainly delivered asynchronously with automated feedback. Course adjustments resulting from direct feedback from students and from data collected on the digital platform, happen in between course runs. Thus, we exclude blended learning from the definition. *Blended learning* is usually understood as online courses offered to registered students on more closed learning management systems (LMS) and with some content synchronously delivered online (e.g. Zoom, Teams) and on campus.

Obviously, we do recognise the spill-over effect from MOOCs to blended learning and traditional courses and vice versa. Providers of one type of course have a lot to learn from suppliers of the other (e.g. pedagogy and multimedia production). MOOCs can also be seamlessly integrated in campus programs or function as supplemental learning for students [14]. However, the point that we want to make is that there are two logics at play [12]. The concept of logics is generally referred to as broader cultural beliefs, values and rules that structure cognition and guide decision-making in a field [1]. One logic is the traditional (closed LMS for campus-based learning) model and the other logic is the transformative (open MOOC-platform for online learning) model. The latter will likely impact strategic, pedagogical, judicial and financial decision making in HE education in future. A rapidly and ever-changing society and work life with a continuous demand for new skills and competencies will gradually focus less on defined diplomas and rather start to appreciate initiatives that focus on bite-size learning on-demand and just-in-time [9].

In their research, Tømte, Laterza, and Pinheiro [27] identified a top-down model with sustainable centralized funding in the governance of MOOCs in Norway. We want to nuance this picture aiming to understand the conditions for a successful outcome of MOOC-initiatives in Norwegian organizations in light of flexible and lifelong learning.

## 2 Research Focus

An overall issue in this research pertains to how Norwegian HEIs will be able to handle digital transformation to meet competition and societal demands for flexible and lifelong learning for all. The authors of this article have been heavily involved in developing the MOOC-concept at institutional, national and global levels at one HE institution in Norway. With this follows the risk of a certain bias that we are aware of. Nevertheless, we also believe that we can contribute to painting a more detailed picture of how entrepreneurs in the field experience obstacles to and benefits from this digital shift.

Our main research question in this article is: *What are the current conditions for MOOCs in Norway?* Sub-questions also governing the research are: *What conditions may impede the outcome of successful MOOC-initiatives at HEIs in Norway?* and *How can Norwegian stakeholders facilitate successful MOOC-initiatives in HEIs?* To answer these this end, we have interviewed entrepreneurs, here understood as employees that take an active and divergent role in developing the MOOC-concept, at ten different HEIs in Norway. Their experience in the MOOC area is the backbone in this research.

### 3 Theoretical Guidelines

In general, HE systems comprise several levels of governance, procedures and implementations where a number of institutions represent the operational level. In Scandinavia, most institutions are public and funded by the government. As such, they are also governed and overseen by the ministry of education. Nevertheless, universities are traditionally bottom-up institutions where academic personnel with a discipline-based identity and expertise are the core personnel. They possess the specialized knowledge that the production in the organization depend on. Usually, when essential knowledge is predominantly situated at the bottom of the hierarchy, we also find organizations with a high degree of local governance and *room for manoeuvre* [24].

Over the years, the institutions have also added administrative staff. In Norway, for instance, they are a growing part of the hired personnel dealing mostly with executive tasks, strategies and support. This also means that the autonomy of faculties (academic personnel) has decreased as the logic of *new public management* (NPM) has replaced the previously non-hierarchical and autonomous institutions. Along with this development, new digital technologies and stakeholders outside the universities, e.g. work life, other educational institutions or governmental officials start to place new demands. Contemporary research has tried to unpack these implications in more specific or concrete terms.

To better grasp the complex dynamics and nuance the conditions for MOOC innovation in Norwegian HEIs, as described in [27], we turn to New Institutionalism Theory in organizational analysis for inspiration. New Institutionalism Theory serves as a theoretical framework to guide the research questions and three categories developed in the data analysis. Sociologists Meye and Rowan [21] argued early on that organizations adopt rational and technical procedures as a means to gain *legitimacy* among other organizations, with the consequence that the instruments intended for enhancing organizational performances develop into *rationalized myths*. In other words, the adoption of rational and technical procedures is merely *superficial* and serve little or no purpose internally in organizational life. Adoption of rational procedures are more of a symbolic display in a championship for legitimacy with other organizations. In fact, this aspect creates the very common conception that organizations have a dual face; on the one hand, organizations portray themselves as effective and rational, while, on the other hand, internal organizational structures intended to be efficient are rather vast and ineffective. Scripted logics for how things are supposed to be done, lead to a variety of *loose coupling* of components that operate under their own agenda or possess separate, overlapping, and contractional institutional logics. Organizational theorists describe *loosely coupled systems* as an effect of high levels of autonomy

which is especially prevalent in educational institutions [28, 29]. Different levels and branches of the organization are only loosely connected and what goes on in one subdivision does not necessarily influence the arrangements in others, which has both positive and negative implications. The notion of loose couplings also denotes a lack of compliance between formal structures, i.e. goals, decisions, plans and lines of authority, on the one hand, and work processes and results on the other [24].

Moreover, it is precisely within these loosely coupled systems that MOOC *entrepreneurs* intend to perform acts of digital transformation or innovative pedagogy. *Digital transformation* is widely used to describe the transformational or disruptive implications of digital technologies in institutions and business [22], and more specifically, to indicate how existing HEIs may need to transform themselves to succeed in the emerging digital world [17].

Instead, we observe that educators share experiences described in research on institutional entrepreneurs. Although institutional entrepreneurs have been defined as change agents, the research points out that the field position of institutional entrepreneurs can be impeded by the power of larger institutional arrangements such as the institutional logics of stakeholder or other competing organizational structures [28, 29].

Nevertheless, loose couplings establish a room for manoeuvre where institutional entrepreneurs can operate. Institutional Entrepreneurship (IE) was first introduced by DiMaggio [6] to describe actors, who initiate changes that contribute to transforming existing and creating new institutions. This is different from notions describing how institutions influence actors' behaviour in a top-down approach. Battilana, Leca, and Boxenbaum [2] propose "a conceptual account that views institutional entrepreneurs as change agents who initiate divergent changes, that is, changes that break the institutional status quo in a field of activity and thereby possibly contribute to transforming existing institutions or creating new ones." [2, page 67]. The concept of institutional entrepreneurship contributes to understanding the rapid change that digital technologies has brought about worldwide, and the role of actors and action in the creation, diffusion, and stabilization of digital transformation in HEIs. MOOC entrepreneurs might, for instance, argue for a particular form of online education that does not correspond with institutional logics of campus pedagogy.

## 4 Method

This study was based on ten individual semi-structured interviews with academics from ten different HEIs across Norway in the autumn 2020. The basic idea behind

the study was to gather open-ended data inspired by an inductive approach and Grounded theory [3, 26]. A main idea in this line of methodology is to build on the content of the informants' responses to elicit new theories and insights. The interviews allowed us to explore similarities and differences across these institutions and explore their uniqueness at internal, external and strategic levels.

To find the informants, we selected academic personnel based on an *information-oriented strategy*, that is, we wanted to find the informants who could provide us with as much information as possible regarding the various MOOC initiatives. To this end, we selected ten institutions based on their active role in the development of MOOCs in Norway. We asked leading personnel to put us in contact with the actual informants. A main criterion for selection of informants was that these informants should have been engaged in MOOC-technology, production and support over a longer period, preferably stretching from 2010 to 2020. The participants finally selected (N = 10), were both male (N = 9) and female (N = 1).

The interviews lasted about 60–70 minutes each. Because of long distances and potentially high travel costs, we carried out the interviews online, on ZOOM. Each interview was taped and subsequently transcribed with consent from the interviewees. The individual contributions have been anonymised in the process.

After the interviews, we coded the data in NVivo and developed categories based on the informants' statements. The purpose of these categories was to structure the rather large material. The next step was to implement a variation of the *constant comparative method* [10, 5], to compare the informants' accounts and to paint a picture of the different initiatives, their similarities and differences throughout the institutions. Throughout the analysis, a particular focus was on the research questions listed above. The research project has been approved by the National Centre for the Handling of Research Data in Norway (NSD).

## 5 Preliminary Findings and Discussion

The findings in this study will be presented in three overarching categories:

1) *MOOC-activities in pockets of innovation* 2) *internal conditions for digital transformation* and 3) *national contributions to digital transformation*.

### 5.1 MOOC-Activities in Pockets of Innovation

The informants described entrepreneurial roles and actions taken in the development of *online courses* in all the ten institutions. When asked to describe their source of inspiration, most informants pointed *abroad*, for example to Stephen Downes and George Siemens, who in 2008 made a connectivist MOOC to take advantage of

web 2.0 technologies and social media to engage learners in more informal learning contexts. They also pointed to Connectivism [25], which is described as an emerging theory for the digital age. Informants also reported being inspired by various pedagogical designs and business models mainly formed by the EdTech industry and by leading HEIs, such as MIT, Harvard, Stanford and the Open University. The informants described themselves as among the first to take a serious interest in the MOOC-concept around 2012–2014. The timing also coincided with the white paper MOOCs for Norway [23] that created enthusiasm among the informants as expressed by one of them:

*It (MOOC-initiatives) coincided well with the report (MOOCs for Norway [23]) and OK, now something is brewing here, and something is happening [...] Driven by curiosity then. (HEI-1)*

When asked about their affiliation, the informants reported being initially located in very different fields – spanning from the university library to technological support units for the LMS and in academic positions in their institutions. Interestingly, none of our informants located their initiatives in the IT-department. Some described an early interest in Open-Source technologies, others in Open Access to education (MOOCs) and a few also explored the possibilities of joining global MOOC-platforms, such as Coursera and FutureLearn in their institutions. We can distinguish three typologies of inspirational sources:

- *Global MOOCs* – Some informants were inspired by study visits to e.g. EPFL, MIT or Stanford or they participated in research projects involving international partners that sparked the interest and motivation to produce their first MOOCs on for example FutureLearn and Moodle in English with a global reach.
- *National MOOCs* – Other informants networked with other interested parties in their organization to establish the MOOC-infrastructure and pilot their first MOOC on Open Canvas and Open edX in Norwegian for national reach.
- *Online courses* – Many informants reported on developing closed online or blended courses with a somewhat more regional reach and with more synchronous and teacher supported learning activities on the existing learning Management system (LMS), usually Canvas. The latter is, however, of less interest in this study, due to the more traditional approach that seems to better fit the existing organizational arrangements.

To illustrate the level of interest and activity in these initiatives, we refer to one informant, who reported that their global MOOCs provided on FutureLearn attracted some 35,000 learners, and that their national MOOCs provided on the institutional Open edX platform attracted some 25,000 learners in 3 years. The overall picture in the interviews is that there are tangible results coming out of these pockets of innovation. By *pockets of innovation*, we think of independent local groups of

innovators or early adopters, who explore their room for manoeuvre to test new concepts and ideas. These ideas concur strongly with the entrepreneurs' values and beliefs about education and institutional practices, but are only loosely coupled to organizational goals, strategies, existing practices and leadership mindsets. Academic freedom exists as long as these pockets of innovation operate independently. When faced with institutional arrangements (cf. New Public Management), the same freedom has a downside, which may lead to alienation and burn out, as the professional standards of excellence are measured against measurable standards based on a different logic [20].

Following the initial MOOC-hype, informants described how the HEIs, to a variable extent, organized and anchored the entrepreneurial MOOC-activities in the organization. We found three typologies:

- *Random initiatives* – informants reported on ad-hoc initiatives and external funding (cf. DIKU).
- *Project management* – informants reported that they were supported by their institution in internally funded projects.
- *Reorganization* – informants described the way they had been reorganized to establish a support unit involving MOOC-production, where an existing unit typically expanded and assimilated MOOC-production in their activities.

While project management is a common strategy in New Public Management, reorganization is a strategy intended to remove physical barriers to strengthen collaboration across institutional silos. A central component in these arrangements is trust [20]. As there are few elements of control involved, the overall picture is that of a journey from random initiatives to more formally established practices at different paces in separate pockets of innovation with variable proportions of trust attached to them.

*The MOOC went up and then it went down a bit, so you think it is dead, I think it is not dead, but that you have now come to the next step. That it's not just about MOOC alone, to make these courses and stuff, but it's come to the next phase now then, to use this for something bigger, to do something new that I think the universities are completely dependent on taking in. This is an example of something that comes in from the side that challenges the university structure and the discussion that we have to take, the first thing is to make the university understand that this is something you have to decide on now, because something comes later. To attack the problem before it has become a problem then. (HEI-1)*

Despite this, a main finding is that regardless of the way these MOOC-initiatives are organized and funded, they are often placed on the "back shelf" and their legitimacy is still loosely embedded in strategy and policy documents at higher

institutional levels and in the broader set of academic cultures at lower institutional levels. In the various MOOC-initiatives, positive feedback on project proposals resulting in external funding and prizes are common, as long-term outcomes seem to be non-existent.

We conclude that the conditions for MOOCs in Norway are difficult. Sensemaking and translation of the MOOC-concept is currently taking place in Scandinavia [27] and is lagging behind international trends and development [19]. Considering the massive development of MOOCs worldwide and the massively growing competitive market for lifelong learning reported in [4], this should obviously be an area of interest to HEIs in Norway.

## 5.2 Internal Conditions for Transformation in HEIs

When asked about conditions that impede the outcome of successful MOOC-initiatives in the organization, most informants reported that they struggle to disseminate their ideas and products outside their teamed and self-motivated pockets of innovation. For example, while external funding of their projects was most welcome, informants felt that many leaders allocated limited *time* to be informed about progress and results in their MOOC-initiatives. This also applied to locally funded projects. Moreover, many informants experienced that leaders possessed an *insufficient vocabulary* to understand and discuss the logics of MOOCs and possible implications for the HEI in a broader perspective in the limited time available.

*There is a decoupling of some formal processes [...] And then the institution wants the money and the activity and then they (leaders) sign (the contract), but they do not really mean it. Or, they do mean it, ideally speaking, but they do not really understand what the consequences of these decisions (MOOC projects) really are. But, committing the organization in the long-run or committing to spreading something to more people, well, it is not that easy. (HEI-5)*

Informants repeatedly describe the dissemination of their results in negative ways: *It has not been successful considering the HEI as a whole, we do not succeed in getting the message out. (HEI-7)*. For example, and to illustrate the complexity in the point that the informants are making, we found that their activities are mainly located across organizational charts and horizontally aligned, as opposed to online and ordinary campus courses on LMS that are generally organized in pre-existing programs and where course collaboration takes place in more local arrangements following established practices. We found that the MOOCs are produced in teams, often consisting of complementary competences involving *technical, multimodal (video) and pedagogical support* and a range of *expert subject knowledge*. They team together from both inside and outside the institution for a certain period of time,

generally lasting from a few months to a year, to reach a common educational goal, often with a *multi-purpose potential* in and across HEIs.

The informants also reported that most academics contributing with their expert subject knowledge were very enthusiastic in their first MOOC, spending a lot of time on a more voluntary basis, while they were more reluctant to take on the work without support in terms of allocated time and recognition from their leaders in their second MOOC.

*But it has probably more to it with time, resources and means to do it. I think a stopper might be that educators will not get any special credit for doing so either. [...] Maybe more what do you get for it? Why should we do that? Because it's about priorities in the end, so that yes, [...] there is something that just does not function quite well there yet, and it is in a way a responsibility that lies throughout the chain there. (HEI-1)*

Moreover, when asked about systematic development and research on their activities, informants reported that there is limited research documenting these MOOC-initiatives. With some exceptions, they described research as not an issue in the support units (e.g. administrative positions with no allocated time for research) and that academics with research time, to a lesser degree, seem to carry out research on their MOOCs. Something, which is also confirmed by [27], where one institution was responsible for nearly half the eleven refereed articles on MOOC by Norwegian authors.

An overall preliminary interpretation of the data coming out of the interviews is that the informants seem to struggle to translate their technological and pedagogical ideas into a more administrative and bureaucratic language to make themselves understood and thereby strengthening their position in the institution. Our findings suggest a weak competence in their role as *translators* in the organization [8], which in institutional entrepreneurship theory refers to how entrepreneurs battle with more powerful organizational actors [2] and are often left powerless. Further research is needed to establish whether this is due to predominantly *silent knowledge* and *limited research capacity* on their own practice to back their arguments, and to what extent leading stakeholders have developed a vocabulary to enter into a discussion on MOOC-initiatives. However, MOOC-actors seem to be impatient, they may fail to understand the slow speed of change and the resilience it takes for indirect impact to manifest itself in inconsistent relations between organizational levels [24].

### 5.3 National Conditions for Institutional Change in HEIs

We also asked the informants about and how national stakeholders facilitated MOOC-initiatives in their HEI. The informants described no *coherent* national strategy to support institutions and academics who provide flexible and lifelong

learning on MOOCs in HE. One response describes the general attitude to national support:

*I am not impressed by the visionary level on government speeches and documents. [...] Most innovation and inspiration, and also the visionary ideas happen at grassroots levels. (HEI-3)*

The informants described the government bodies as mostly peripheral, as only one government body seemed to play a more active and supportive role. For example, while the Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (DIKU) provided funding for transformative open online course production, the Norwegian directorate for ICT and joint services in Higher Education and Research (UNIT) provided minimal, but crucial support for the local Open EdX developers in our study. Our informants made no reference to The Norwegian Agency for Quality in Education (NOKUT) in terms of the many questions related to open online education, quality enhancement and legal affairs in the area of MOOCs, certificates, transfer credits and micro-credentials etc. that the MOOC-initiatives entailed. So far, we would like to add that the government has not yet come up with a sustainable financial model for flexible and lifelong learning, that attracts national MOOC-offerings in HEIs (cf. principle of free education).

To further support the argument, our informants referred to the ad-hoc provision of two MOOC-platforms – Open edX and Open Canvas, and a portal – mooc.no, which came about upon request from individual entrepreneurs in HEIs and was graciously supported, with minimal maintenance and upgrading, by individual stakeholders in UNIT around 2013–2014. Our informants report that the support is still mainly funded by the institutions at minimal cost:

*There are limitations on the side of UNIT, actually. The Open EdX-installation is not a priority there, in any case. (HEI-7)*

In the few institutions that provide national MOOCs for flexible and lifelong learning in Norwegian, our informants described the platform technology as developed in projects and centre-based pockets of innovation characterized with a somewhat loose institutional anchoring and legitimacy. The Open edX entrepreneurs, who networked and pushed for national action, described their efforts as not successful, others reported on a gap in the organizational arrangements for national MOOCs. Our findings suggest that the white paper MOOC for Norway [23], seems to have made little difference at governmental levels so far.

An overall picture in the interviews is that there are pockets of innovation ready to support technological infrastructure for MOOCs and MOOC-projects located in governmental bodies. However, the lack of a national coherent strategy for MOOCs may well explain why we found that nationally funded online courses tend to run on closed LMSs where participants must register as qualified students at bachelor's or master's degree level to get access to course content. Moreover, since there is

no coherent, reliable and legitimized national technological infrastructure – portal and platform – in place, we argue that it is challenging for flexible and lifelong learners to know what courses are available.

To sum up, we see different *logics* at play [1] also behind digitalization initiatives at government levels in HE. The logic seems mainly campus centred. Nevertheless, *loose couplings* [24] seem to go all the way up to governmental levels and also exist among the different governmental branches. At these levels, pockets of innovation exist, but tend to be overseen, as many initiatives become invisible. The MOOC-field seems decoupled from formal structures and established policy and practice, with implications for HEIs.

## 6 Consequences for Flexible and Lifelong Learning

Acknowledging that strategic decision making in HE is a question of logics, value and judgement, our findings suggest that strategic decisions regarding MOOC-initiatives are, with some exceptions, not sufficiently informed at managerial levels. One informant expresses his/her concerns in the following way:

*The challenge probably lies in the fact that they (the MOOC-actors) have too little contact with the ownership level, for instance the vice-rector level. Because if the strategic competence is to be affected and begin to work, [...] as a basis for making the important strategic choices, one must have a certain minimum of contact with top management level, and we have probably not had that until now. [...] One does not have good enough contact with, I would say, quite innovative programs and projects such as [mentions project]. (HEI-3).*

Inspired by Paulsen [24], we suggest the existence of an asymmetrical distribution of *critical knowledge* regarding MOOCs at the different institutional levels. This applies in particular to the complex and rapidly emerging EdTech-based landscape. Consequently, entrepreneurial pockets of innovation tend to stay encapsulated for longer periods of time, as no-, slow- or perhaps ill-informed strategic decisions are made. Unclear strategies at government levels only contribute to the complexity of strategic decision making in HEIs. Considering that hundreds of millions of NOK have already been spent on funding online courses, results from these initiatives can contribute to inform decisions regarding digitalization of HEIs.

Academic teachers and leaders are not a homogenous group, and there are blurring boundaries. Our findings are consistent with findings from in HE research in the UK [30]. Here, the researchers found that also many academic teachers are reluctant and less motivated to adopt digital technology as there is limited evidence to show that technology has a positive impact. This relates to module and course evaluations, as well as consequences on their career development.

Zhou, Wolstencroft, and Milecka-Forrest [30] also found that many managers in the UK believe that *digital technologies* can increase course recognition, prepare students for future careers and create a student friendly environment. The main difference between Norway and the UK seems to be the leaders' motivation for direct involvement in innovation projects.

With reference to the two different logics at play in Norwegian HEIs, our informants display a certain scepticism regarding leaders' beliefs in MOOCs as tools for *flexible* and *lifelong learning*. Except from strategy and policy documents, we found no research and little evidence regarding academic managers' motivation to introduce and support digital technology in HEIs in Norway. For example, in one external evaluation at one HEI, managers came across as generally uninformed about the current MOOC activities in their organization. Rather MOOC-entrepreneurs were encouraged to contribute to digital "low threshold" support at grassroot level [7]. Designing the digital experience around current university structures rather than focusing on contemporary digital alternatives and the needs of the end-user, could lead to organisations that are resistant to change.

## 7 Conclusion

In this article, we addressed the following research question: *What are the current conditions for MOOCs in Norway?* We found that MOOC-entrepreneurs operate in *pockets of innovation* in HEIs. They are located in different organizational fields. Thus, they operate in teamed networks across institutional silos, with some, but limited, external support from governmental bodies, in terms of project funding and technological infrastructure. The internal conditions for these MOOC-entrepreneurs are challenging, as their struggle for power and legitimacy, meaning their ideas and results, tends to be overlooked by important stakeholders in the institution.

In sum, our findings suggest that, on the one hand, there is a need of *translator* competence among MOOC-entrepreneurs to facilitate *critical knowledge* among important stakeholders in HE. On the other hand, there is a need for stakeholders to allocate time and attention to these pockets of innovation for digital transformation (flexible and lifelong learning) to move HEIs forward. We found two *logics* at play, that of traditional on campus and that of innovative online education (MOOCs). In Norway, like in most countries facing digital change, exploring how MOOCs, micro-credentials and everything it entails, can develop in competition with more formal and established educational logics, has assumed a greater urgency.

The study is qualitative and reports on findings from 10 semi-structured interviews with MOOC-entrepreneurs in Norwegian HEIs. Our findings introduce and

shed light on the notion of *pockets of innovation*, which are collegial groups testing out the MOOC-concept loosely coupled from the organization's normal structures and practices. We have presented and discussed our findings in light of New Institutionalism and Institutional Entrepreneurship, focusing on MOOC-entrepreneurs, who can initiate changes that contribute to transforming existing and creating new institutions.

With this article we hope to contribute to an emerging educational field that has not yet yielded much research in Norway. Hence, we hope that we can contribute to shaping policy, inform practice and inspire further research from a Norwegian perspective. Our underlying motivation is that we believe that MOOCs are disruptive, not only because of digitalization within the traditional existing framework – blended learning, but mainly because MOOC-initiatives prepare the ground for a new concept of flexible and lifelong learning. Our findings invite further research, especially in the field of critical knowledge about digital transformation.

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