

## The academic library – a hidden stakeholder - in the age of MOOCs

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### Abstract:

*The involvement of the University Library at FernUniversität in Hagen in the production process of the cMOOC "Discover the Island of Research" (#ExIF13) makes it possible to address the question of the role of the academic library in the age of MOOCs on the basis of practical experience. In recent years academic libraries have experienced a change in their scope of tasks and services as a result of digitizing and the digital shift. Is this experience with the digitizing of content sufficient for an academic library to claim business as usual for the forthcoming digitizing of teaching (MOOCs)?*

*All the requirements made by the ExIF13 hosts (Sebastian Vogt and Markus Deimann) of the University Library Hagen (Dirk Eisengräber-Pabst) concerning the individual production steps could be located conceptually in the classic spectrum of tasks of an academic library. However, there were a few challenges to be mastered in the practical (and here especially technical) implementation. While the scope of tasks of the embedded librarian, teaching information literacy, could be implemented quickly, there was a lack of suitable repositories, search engines and metadata concepts for the cross-institutional handling of audio-visual (education) contents.*

*For the role of the library in the age of MOOC, this means that it possesses full theory and conceptual potential as a service partner for producers, teachers and learners. It can thus be considered a hidden stakeholder.*

**Keywords:** cMOOC, academic library, role.

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## 1. Introduction

This paper focuses on the question of what the role of the academic library is in the age of Massive(ly) Open Online Courses (the age of MOOCs). To find answers to this question, it first outlines the role of the academic library altered by the digital shift (Section 2). The initial question is then answered (Section 3) with the example of the four-part production process of the cMOOC "Discover the Island of Research" (#ExIF13) (Vogt & Deimann 2014) (presented in Section 3) held at FernUniversität in Hagen in the summer semester 2013, in which the academic library was involved as an actor (Section 4). The paper is rounded off by a conclusion and outlook (Section 5).

## 2. The role of the academic library altered by the digital shift

The academic library is fundamentally a provider of recorded knowledge and historical records. Its "classic" role consists in procuring, keeping up with, making accessible, relaying and archiving academic literature. In terms of this role, the academic library can be considered as an institution of information supply with a specific information structure that operates as an intermediary between supply and demand on diverse (information) markets (Hanekop & Wittke 2006). At the same time the academic library is a key player in the academic world, which for example procures opportunities for junior academics to enhance their reputation by compiling collections and catalogues (Merton 1973) as well as setting academic priority areas.

In the context of the digital shift, which is also partly based on the logic of the long-tail approach by Anderson (2006), (see Casey & Savastinuk 2006), the processes and tasks of an academic library have changed. The effects are perceptible both in the area of information infrastructure (systems, metadata standards, automation, taking over third party data) and through shifts in the publication process of academic literature itself. Not only have modern services been designed more effectively and efficiently, but in addition boundaries between the role, tasks and business areas of other stakeholders such as publishers, aggregators, university management, researchers and teachers have become blurred. The resulting areas of overlap enable actors who used to be clearly separated by function to become fellow competitors or partners in cooperation.

The classic role of the library has developed in the following task areas (see Campbell 2006):

- *Providing quality learning spaces:* The academic library as a functional space is changing its role as a temple of books in the sense of a cultural icon by conversions and annexes to become a space for communication and collaboration, not only for learners (see for example Kramer 2010).

- *Creating metadata:* In particular by cataloguing digital resources, the academic library has assumed the creation of metadata standards as a "new" role (Baldonado et al. 1997).

- *Offering virtual reference services:* Thanks to the diverse options of computer-mediated communication, the role of the "classic" reference desk in the academic library, for example as an information centre, is more flexible in space and time. This allows the librarians to collaborate pro-actively on the basis of their specific skills and expertise, for instance in campus or research projects, in the sense of a role substitute as embedded librarians (Dewey 2004) or liaison librarians (Yang 2000).

- *Teaching information literacy:* Information literacy is a basic skill for participating in the Information Society, and is part of the basic human right of lifelong learning (Information

Literacy Meeting of Experts 2003). In this sense the academic library assumes the institutional role of supporting all actors in its academic environment lifelong in refining information literacy through specific (learning) offerings.

- *Choosing resources and managing resources licenses:* Through cooperative development and making material available, the academic library expands its procurer role on a cross-institutional basis as regards customers and inventories (see the Electronic Journals Library; University Library of Regensburg 2014 and the Interlibrary Loan as examples). The academic library also adopts positions in the role as publisher through green and gold Open Access paths (BOAI 2001). In return publishers, aggregators and users (patrons) acquire greater influence on the selection of literature to be procured by E-only policies, Patron Driven Acquisition Models, Approval Plans, Standing Orders and the acquisition of (user licence) packages (Nixon et al. 2014). In these contexts the academic library is ever more frequently assuming the role of Copyright and Licence Clearing Officer for (digital) resources. In the course of the E-only-policies, a many libraries do not have e-collections, but instead e-connections. Archiving models (for example Lockss and Portico) require coordinated cooperation arrangements between libraries and publishers for this.

- *Collecting and digitizing archival materials:* The academic library plays a key role in providing access to archival materials in the great bandwidth of media, technology and format diversity. It plays the part of custodian of cultural heritage not only by collecting, but also by digitizing and making historical media artefacts available (see also the example of the project "Turning the Pages"; The Royal Society 2014). This role expands to cover digital long-term archiving, for instance of multimedia and complex applications, video, audio, (open) educational resources, interactive digital objects, internet documents, digital research data and computer games (by way of example see the "nestor" project; Neuroth et al. 2010).

- *Maintaining digital repositories:* Finally, the creation of sustainable digital repositories is a central role of the academic library. This includes not only collections of digitized artefacts available via the "(deep) web". Institutional repositories in which for example research data, (Open Access) publications, preprints and lectures are collected and archived in the long term are becoming increasingly important. Research queries for example in the Digital Humanities are increasingly being answered on the basis of these databases. Within the context of these assets it becomes clear that the academic library will focus more strongly on issues including access and copyright as well as metadata standards.

### 3. cMOOC “Discover the Island of Research” (#ExIF13)<sup>1</sup>

In 1984 Alemann published a hand-drawn map of the research process in empirical social research (Alemann 1984, p.152f.). The map shows the Island of Research with striking orientation points such as the “Bay of Literature”, the “Peak of Confusion”, the “Mountain of Hypotheses”, the “Serendipity Mine”, “Mount Where-are-we-going?”, the “Data Analysis Jungle”, the “Where-am-I Fog” and the “Plains of Report Writing”, surrounded by the “Sea of Theory” and the “Ocean of Experience”, and remote from the “Know-it-all Isle” (Alemann 1984, p.152f.). The (re-)discovery of this island presents the action framework of the seven-week, video-based, German-language cMOOC “Discover the Island of Research” (#ExIF13) on scientific work methods which was held at the FernUniversität in Hagen in the summer semester 2013. The cMOOC focused on refining the research competence of the students in their personal lifelong learning process by (re-)awakening joy and interest in scientific work

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<sup>1</sup> This part is based on updated excerpts from Vogt & Deimann (2014).

and the associated methodology. In the connectivist spirit according to Siemens (2012)<sup>2</sup> and at weekly intervals, adopting a series character, the ExIF13-Team produced new episodes of the expedition trip as internet-wide live broadcasts (archived on YouTube; Vogt & Deimann 2013), which were connected with assignments. Using Twitter (2013) as central communication channel, the ExIF13 activists were able to pose questions live during the broadcast and comment on these, as well as exchanging and networking with each other. They used individual approaches via various other social media channels such as e.g. blogs and Google+ (2013) in order to present the development of their individual competence along self-produced medial artefacts that did not merely represent solutions to the weekly assignments. The conceptual idea of “Educational TV reloaded” as a combination of proven formats of (internet-based) educational television (Bates 1988; Bates 1984; Koumi 2006) with live feedback and the networking opportunities of social media was central to the didactic design of the cMOOC.

The production of the cMOOC “Discover the Island of Research” (#ExIF13) was a cooperation project between the Departments of Media Didactic (Prof. Dr. Theo Bastiaens, Dr. Markus Deimann) and Empirical Education Research (Dr. Sebastian Vogt) in cooperation with the Department of Media Production at the Centre for Media and IT of the FernUniversität in Hagen. Dirk Eisengräber-Pabst from the University Library Hagen was involved in the project as embedded librarian (Dewey 2004). With the realization of the first broadcast, a four-part production process - content pre-production, live content production, content archiving and support – evolved that shaped the ExIF13.

#### **4. The role of the academic library in the cMOOC #ExIF13**

This section demonstrates by way of example looking at the four-part production process of the cMOOC "Discover the Island of Research" (#ExIF13) (Vogt & Deimann 2014) what the role of the academic library is in the age of Massive(ly) Open Online Courses. Generally it can be said with regard to the production of the cMOOC "Discover the Island of Research" (#ExIF13) that the second episode was designed by the ExIF13 hosts Markus Deimann and Sebastian Vogt as a voyage of discovery in the "Bay of Literature". It also cruised in the waters of the "Delta of Publisher". The instructional design provided for an embedded librarian as lecturer addressing the question "How does literature research function?", who would support the ExIF13 activists in refining information literacy. Furthermore, the embedded librarian was to answer queries during and after his guest appearance in the spirit of a virtual reference service. This role and the associated final step of integrating a librarian into the teaching process of a MOOC (Gore 2014), comprising phases scheduled in advance in the live content production and in the support, was provided by Dirk Eisengräber-Pabst.

##### **4.1 Content pre-production**

For the phase of content pre-production, which was repeated weekly for each episode (see Vogt & Deimann 2014), there was a wish to recycle partially still and moving pictures for example from a FernUniversität archive for (historical) time-discrete medial artefacts in

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<sup>2</sup> The beginning of cMOOCs starting in 2008 shaped a new model of collective knowledge production and distribution. The connectivism, an idea originally developed by George Siemens (2005), assumes that knowledge results not only from processing (digital) content, but also in exchange with peers who function as nodes in a Personal Learning Network. Knowledge can be processed and archived more quickly and effectively by joining up with thematically relevant groups (e.g. with Twitter and Blogs). A cMOOC is thus an expression for the joint management of information based on thematic priority areas in a specific time frame.

terms of (open) educational resources, or to use them as starting material for new elements for the cMOOC. Regrettably, the ExIF13 Team ascertained that above all the self-produced moving image material of FernUniversität in Hagen had largely not been systematically collect, catalogued or digitized in archives. Unclear rights and license issues also made recycling difficult. Based on this experience, a future central role of the academic library will be to create cross-(educational)-institution archives for audiovisual (educational) artefacts in which among other factors metadata standards and rights and license management are integrated. The fact that this "new" form of collecting and digitizing of archival materials, choosing of resources and managing of resources licenses is possible and can be integrated into the archives in (in-house) production processes – one important keyword here is the support of diverse technical production formats – is shown above all by radio archives caught between productivity and preservation (see Kummer et al. 2014).

The solution to the problem complex outlined here lay in the ExIF13 Team producing their very own audiovisual open educational resources (see Vogt & Deimann 2014). However, due to the continuing lack of a digital repository, these assets including their production data could not yet be shared (on a cross-institution basis) with other actors. The academic library should in future play a greater role in this context too.

## **4.2 Live content production**

A similar problem complex continues in the live content production phase. Only limited streamer server resources were available to FernUniversität in Hagen for the video live streaming of the individual ExIF13 episodes. The question arose as to why the academic library should not in future take over the role of distributor – as it already does for example in the case of Open Access publications – and create content delivery networks together with other academic libraries. In this network, future temporary scarce streaming server resources could be compensated by other peers. In terms of a decentralized web service, access to this academic library offer should have a low threshold and be possible via a uniform web-based management tool

## **4.3 Archiving**

The question concerning the low-threshold access also arose in connection with archiving the cMOOC episodes. As an institutional video platform allowing mass access to the educational (TV) contents across the internet for various end devices and formats and offering long-term archiving functionality was lacking, the ExIF13 Team decided in favour of on-demand streaming via YouTube (see Vogt & Deimann 2013). This not only shifts the (open) question of long-term archiving from the academic library to a third supplier. In addition it brings new problems "on board": the videos of the ExIF13 – envisaged as a form of open educational resource – are subject to a specific YouTube license after their publication on YouTube, which fundamentally contradicts the idea of an open educational resource. Furthermore, the ExIF13 contents are not so far accessible via academic library catalogues. Here too a future role of the academic library becomes evident – offering corresponding services in a network.

## **5. Conclusion and outlook**

The production of the cMOOC "Discover the Island of Research" (#ExIF13) involved the University Library in Hagen in various process steps. The ExIF13 hosts enquired about various librarian services such as teaching information literacy, maintaining digital

repositories, etc. in advance. The requirements and enquiries on the MOOC production can easily be described on the part of the library with existing concepts such as for example the embedded librarian. At the theory-conceptual level, academic libraries are prepared through their many years of experience in digitizing and the digital shift which is taking place from content to the digitizing of teaching. In the practical implementation, however, difficulties arose in the cross-institutional handling of audiovisual (education) contents. One of the lessons learned from the production of ExIF13 was the lack of a suitable repository, a search engine and prepared metadata concepts. This is the actual challenge for academic libraries in the age of MOOCs, if a cMOOC is not simply considered as a collection of time-discrete contents such as text and image.

Can the academic libraries take it easy in view of their many years of experience in the course of the digital shift and sit back to watch the digitizing of teaching at leisure? This can be claimed without further ado for the core librarian business. For the role of the academic library, this is a case of business as usual. However, for some time now the clear image of the academic library has been disappearing behind many new roles, tasks and work areas. It shares this with other stakeholders in the information market, such as for example publishers, faculties and more recently commercial providers of MOOC platforms. In these overlapping areas, there is potential for the academic library to enter into cooperation arrangements and become a fellow competitor. This makes it a flexible hidden stakeholder – though operating on a blurred front – in the contested field of the information market.

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