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The MOOCs business model

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Abstract

A new business model for MOOCs is described in this paper. This model allows for learning interaction between students and teachers on demand using a system that enables the services of the participating teachers to be financed. By integrating three different learning models, the learning process of the students can be enriched with certain elements and the services provided by teachers can be funded through a specific payment system.

Keywords: Massive Open Online Courses (MOOCs); Model; Social Media; e-Learning

1. Introduction

MOOCs are a hot and current topic within the field of e-learning. Many courses are available on all possible themes and topics– most of them for free and organised by each institution as marketing tools and channels. Only a small proportion of these **M**assive **O**pen **O**nline **C**ourse**s** are financed by examination and diploma activities.

This paper presents the innovative idea for a MOOC business model which funds the teachers involved in these courses. Based on three social media models for e-collaboration developed by the Swiss Special Interest

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Group for E-Collaboration (SIG eCo), the present business model demonstrates how social media can be used and implemented to establish a more interactive approach in the field of MOOCs.

To this end, the paper starts by looking back at the history of the models by briefly introducing these three social media models as basis for the MOOC business model. In section 3, MOOCs are embedded in their current setting of e-learning before the subsequent section 4 unfolds the core theme of this paper by combining these social media models to create an innovative and new *business* model for MOOCs. The paper concludes with a short summary of its important results and provides an outlook on any remaining questions and future steps.

2. History

A large part of learning happens up there – in the virtual cloud. Learners make use of the wide range of technology-based multi-media activities for managing and reflecting on their learning process, for creating (learning) content and/or for collaborating and communicating with others. Social media in particular with their various functionalities of networking, sharing, blogging, chatting etc. have a considerable impact on how learning experiences are designed as a collaborative activity these days.

Thus since Twitter, Skype, Dropbox, wikis etc. have become a hot and challenging topic in the e-learning field, the Swiss Special Interest Group E-Collaboration (SIG eCo) started to develop three conceptual models in 2012 which describe, analyse and promote hands-on learning with, in and through social media.

Later on, these models were developed further and presented at a Learning Café to the Swiss Academic E-Learning Community eduhub (www.eduhub.ch) at the eduhub days in January 2013.

This section will present a brief overview of the three models and their application in higher education settings since they form the basis for the MOOC business model which will be introduced later in this paper. Starting with a functional definition, social media are thereby perceived as digital applications which allow and promote social interactions and social exchange among their users (Hansen et al. 2011).

2.1. The Social Student Model

The social student model refers to the fact that the students' learning process is never fully accessible to the teacher as shown in figure 1.

In other words: students design their learning experiences in an individual and partially informal way by using social media for working with others on shared tasks. Instant messaging, for example, facilitates collaboration among students by enabling prompt and immediate exchange on specific topics. The advantage for the student here lies in instant communication: instead of spending time waiting for the teacher's answer via email or in the next lesson, the learner receives the desired information more easily and quickly by asking his/her schoolmates via Skype, Facebook or other social media.

The model points out this informal side of learning where teachers do not have (and do not need to have) full insight. Thus the model aims to raise awareness of the fact that the teacher's role is limited to task-related support within the learning process and that the organisation of this learning process on the other hand (partially) depends on the responsibility of students themselves. Social media offer needs-oriented and flexible channels for designing these learning experiences in a collaborative way.
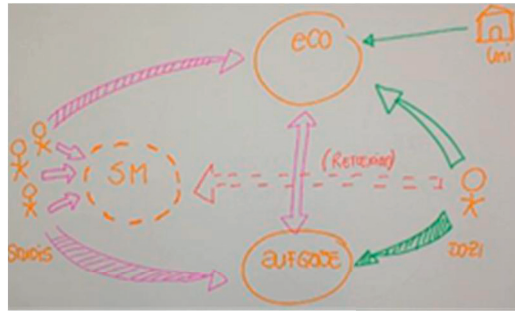
Fig. 1. The Social Student Model

Legend: Studis=Students, SM=Social Media, Aufgabe=Task, eCo=eCollaboration, Dozi=Teacher, Reflexion=Reflection

2.2. The E-Helpers Model

Following the social student model and its claim that social media support the informal aspects of the learning process by enabling social exchange among students, the e-helpers model introduces the idea of an open helping community for learners, based on the two aspects of *task* and *time*.
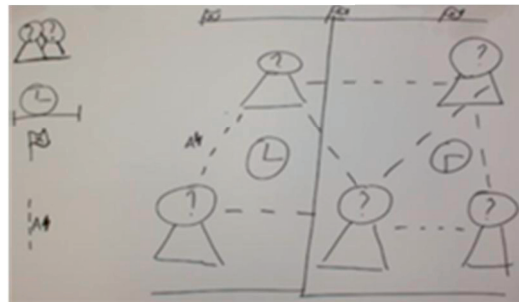

Fig. 2. E-Helpers Model

The model responds to the question of where learners can find out certain information at a certain time for solving a certain task by making use of shared knowledge and experience.

Assuming that others have the same or similar problems to solve, users come together and build a temporary online community based on their specific needs. When the learners have found out the information they were looking for, they leave this temporary community again.

What distinguishes the e-helpers community from other social media channels is its focus on the users' current needs and not on the social relationship between them. Its objective is to generate fast and prompt information *by* users *for* users who are not necessarily emotionally linked to each other. Thus, while the members of this community change continuously, the information that is collected on the platform is retained over time for future use.

2.3. The Antibody Model

The last of these three social media models introduced in this section presents the idea of using social media to boost innovation through collaboration.

In higher education settings, collaboration normally takes place among students who know each other or who are linked with each other through a topic, personal skills or affinity. On the contrary, this model promotes the idea of collaborating with unexpected people based on the assumption that unknown people, people from other fields and people with other views and interests etc. offer deeper and different insight into the learner's perspectives. Social media create a valuable environment for this kind of unexpected collaboration since they allow learners to find people, knowledge and experiences which extend beyond their own background.

Fig. 3. The Antibody Model

To this end, the model creates the figure of the antibody – a kind of devil which engages the learner to overthink his/her ideas and views by asking questions, criticising or by having complementary needs or objectives. Regardless of whether this other person doesn't understand, doesn't like or doesn't agree with the learner's view, this "devilish" feedback takes the learner out of his/her comfort zone and thus creates room for new, innovative, unexpected and unusual ideas as added value within the personal learning process.

The following section briefly presents MOOCs as a recent trend in the e-learning field, before the MOOCs business model is introduced in section 4.

3. MOOCs

Massive Open Online Courses (MOOCs) have been one of the most recent developments in the field of online learning. As the name implies, MOOCs are online courses that are designed to offer learning content to a large group of people. Gaebel (2013) characterised a MOOC as a free, credit-less online course where people can participate without entry requirements and without limits on the amount of registrations. For example, the course "Introduction of Artificial Intelligence" by Dr. Sebastian Thrun reecived 150,000 registrations and Stanford University started three online courses that each amassed at least 100,000 applications (Pappano, 2012). There are currently many other Universities which offer MOOCs and several platforms/companies have distinguished themselves as leaders in this area, such as edX, Coursera, Udemy MITx and Udacity.

Two kinds of MOOCs can be distinguished: the cMOOC model and the xMOOC model (Siemens, 2012). According to Siemens, the cMOOC Model "emphasizes creation, creativity, autonomy and social networking learning" and a "focus on knowledge creation and generation". On the other hand, the xMOOC model is based on "a traditional learning approach through video presentations and short quizzes and testing" and "focuses on knowledge duplication".

Even though MOOCs are a recent development, several benefits can be noted. According to De Waard (2012), MOOCs are time and cost efficient. There are free tools available for building these courses, languages can be chosen and changed freely, tools can be tailored to the preferences of the participants and courses can be set up quickly. Secondly, another benefit is openness. Signing up does not usually require any specific certification. The only pre-requisites for most Massive Open Online Courses are access to an Internet connection and a device to access the course. The scale and nature of the course make time zones irrelevant. Thirdly, there are several benefits for student learning. MOOCs can easily be added to one's personal learning environment. The setting is usually more informal and therefore might be more productive for some students. Everybody can sign up for a course but this process will force students to evaluate their own learning processes. A further advantage of MOOCs is cross-disciplinarity and promotion of exchange between the different fields of expertise.

However, MOOCs lack ways of promoting social interactions as well as funding teachers' activities. The MOOCs business model is aimed at filling in these gaps, as described in the following section.

4. The MOOCs Business Model

4.1. Promoting social interaction in MOOCs

MOOCs are trendy; there are a lot of courses available where everybody enrols in a MOOC course for free. Currently, MOOCs are mainly financed and treated as marketing tools. Only a small proportion can be financed by examination and diploma activities.

MOOCs have become very popular because publication and participation are easy to manage. Students do not have to pay for a MOOC which is an advantage. However, they cannot really interact with teachers. There is currently no way how teachers could earn money for teaching and collaboration services within a MOOC.

By integrating the aforementioned learning models into a MOOC, the learning process of students as well as the interaction between teachers and students can be improved and a payment system can be created. By combining the learning models, an interesting business model for MOOCs is set up which finances the teachers involved in the courses and lets the students interact with them.

Before those learning models can be integrated, every model shall be briefly summarised in terms of its core message:

- Model E-Helpers: A group of learners come together for a certain period of time to work on a specific task. The group members can be anonymous as their personalities are not of interest. When the task has been resolved, the group will disintegrate. The group is mainly task and not member related.
- Model Social Student: A group of learners learn on their own via social media interactions; their contact with teachers is only task-related via e-collaboration. Teachers do not have (and do not need to have) insight into the learning process of their students as their contact is only a task-related one.
- Model Antibody: The antibody stands for the opposite of what you normally are looking for. In our subject matter, it allows for the creation of a wide learning space and lets students experience and create different views and new perspectives.

4.2. How the MOOCs Business Model works

Figure 4 below shows how the MOOCs business model will work.

Example: Students register for 100$ to participate in a MOOC (it is possible to allow students to participate without registration just to gain an overview of the course topics first. However, these students cannot participate in the activities described below until they register for the MOOC and pay the fee).

Registered students will learn and work by themselves through the learning material for the MOOC; from time to time, they have to solve exercises. For each exercise, there is a standard solution provided as part of the course but it is the students' task to look for other, non-standard solutions. Here the antibody model comes into play as it promotes innovative and new ways of thinking. For example, in order to find another way to solve a mathematical problem, the student is forced to leave his or her comfort zone of standards.
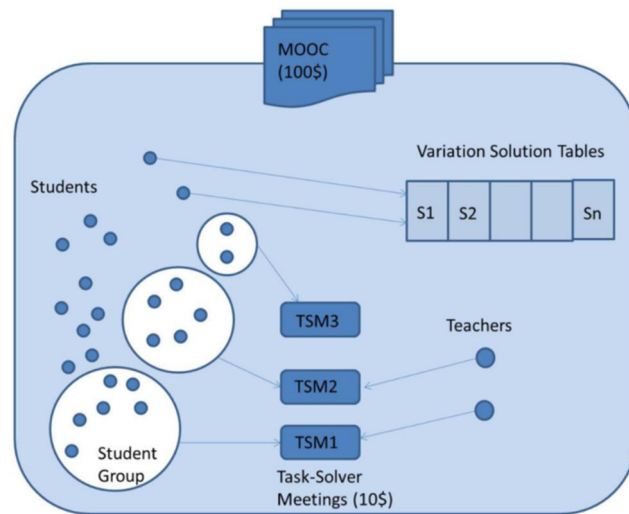

Fig. 4. Operation of the MOOCs Business Model

This is of great benefit for the students' learning because they have to look at the problem from different perspectives and have to work actively within the given subject matter - not just by reading through it. Finally, they have to enter their solution into a Variation Solution Table which is public for all students. The additional solutions must be different from the existing ones already listed in the table.

While trying to find solutions, students experience problems and realise that they need more help in order to understand the subject matter better. To this end, registered students can open up a new Task-Solver Meeting where they describe what problems, issues or questions they want to discuss with a teacher in an online meeting. Alternatively, students can look for existing open calls for a Task-Solver Meeting which fulfils their needs. If there are enough participants for a certain call, a teacher will schedule and hold the meeting. This is where the task/time related e-helpers model which forms the student group comes into play. An active meeting will cost every participant 10$ for example, so the teacher is paid for his/her job.

As registered students already paid 100$ at the beginning of the course, each meeting will be paid for using a fraction of this amount. The registration fee allows students to participate in 10 meetings. As the teachers will only be active based on demand for a Task Solver Meeting, the social student model is deployed here.

There are also several options which can be implemented:

- For every additional solution entered into the Variation Solution Table, students can gain virtual money (for example 5$) that can be used for further Task-Solver Meetings to enhance the chance for having enough participants for a certain meeting.
- Students receive scores for their solutions. The scores will be provided by teachers. If a student reaches 100 scores he/she will receive a course certificate or diploma. The diploma will contain a written statement about the graduation process. As part of the registration, students have to confirm that they are the authors of their solutions.

5. Conclusion and Outlook

This paper gives an overview of the development and application of three social media models developed by the Special Interest Group for E-Collaboration consisting of members from Higher Education Institutions in Switzerland. The models integrate social media as hot topic in e-learning and present concrete ideas on how to enable, support and reflect learning in higher education with the help of digital applications. Thereby the models focus on learning as a collaborative process in which shared knowledge and experiences are provided by the teacher as well as by the students themselves and made accessible within a wide range of social technologies.

These learning models form the basis for the MOOCs business model. This model enables learning interactions between students and teachers *on demand* and the funding of services provided by teachers through a specific payment system. One of its elements includes interaction between students and teachers whereas subject matter and requests are formed by a self-regulated group of students. Another element is the use of learning material which is connected with specific tasks and which requires a self-created, individual output from students.

The next step will be to setup and run a MOOC with this business model. In the long-term, the model should allow for small and medium-sized universities to offer MOOCs and let students invest in learning based on their own requirements.

References

De Waard, I. (2011, July 25). Explore a New Learning Frontier: MOOCs. *Learning Solutions Magazine*. Retrieved June 1, 2013, from http://www.learningsolutionsmag.com/articles/721/
Gaebel, M. (2013, January). MOOCs: Massive Open Online courses. European University Association. Retrieved from http://www.eua.be/Libraries/Publication/EUA_Occasional_papers_MOOCs.sflb.ashx
Hansen, D. L., Shneiderman, B., Smith, M. A.(2011). *Social Media: New Technologies of Collaboration, Analyzing Social Media Networks with NodeXL*, Morgan Kaufmann, Boston (pp. 11-29). Retrieved from http://www.sciencedirect.com/science/article/pii/B9780123822291000023
Pappano, L. (2012, November 2). The Year of the MOOC. *The New York Times*. Retrieved from http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html