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Abstract für die eLBa 2012[1]:

New format for online courses: the open course „future of learning"

Background and introduction: the concept of connectivism

The concept of open courses was started by an idea of David Wiley who opened a wiki based course named „OpenED Syllabus" covering the topic of open education.[2] Although previous examples exist, the concept became famous through an initiative of George Siemens and Stephen Downes who offered a course called "Connectivism & Connective Knowledge" which became well known under the label "CCK08". Along with this activity the two in the educational community well known Canadians also implemented the concept of connectivism, which was is treated as a fourth learning theory (a attempt meanwhile often attenuated by the two authors). Nevertheless, it is interesting to have a look at the contribution connectivism can make to modern learning theory and the discussion about web 2.0 technologies in education.

According to Siemens (2005), "learning […] is focused on connecting specialized information sets, and the connections that enable us to learn more are more important than our current state of knowing." For him, learning does not necessarily takes place inside of us but "can reside outside of ourselves" and is "not entirely under the control of the individual" (Siemens 2005). He states that new information is continually growing in networks worldwide at such as fast rate "that the ability to draw distinctions between important and unimportant information is vital."

Therefore he defined several "Principles of connectivism" (Siemens 2005):

- Learning and knowledge rests in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in non-human appliances.
- Capacity to know more is more critical than what is currently known
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.
- Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.

Critics of this rather new concept state that elaborations on connectivism fail to build on any profound review of literature on learning theories published before and therefore does not relate to prior work in this field such as theories of social learning and works such as Wenger's concept of communities of practice in which group

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[1] http://www.e-learning-baltics.de/science_program/
[2] http://www.opencontent.org/wiki/index.php?title=Intro_Open_Ed_Syllabus

members learn from each other through sharing information and experiences within the group (Wenger 1998). Although many do not look at connectivism as a new learning theory, Kop and Hill for example point out that it "continues to play an important role in the development and emergence of new pedagogies, where control is shifting from the tutor to an increasingly more autonomous learner."

Open Courses

In their first open course, "CCK08", George Siemens and Stephen Downes implemented some of their ideas on connectivism: the course was open and available to anyone who was interested in signing up. In particular this openness is one of the major characteristics of an open course. Because reference to the self organization competencies of the participants is part of its nature: everybody participating defines his or her own learning objectives. The form of participation can range from just reading blog postings up to the contributing posts on their own blogs or in other media tools. Just participants who want to receive official credit points or a certificate might get involved on a more formal base such as providing a certain amount of contributions.

With their first open course, George Siemens and Stephen Downes attracted around 2,000 participants, a fact which created the expression ‚massive open courses' (MOOC) which labels courses with a large number of learners. Meanwhile, many other institutions have offered open course. For example, the university of Stanford started an open course on artificial intelligence which attracted 160,000 enrollees out of which 20,000 completed the coursework. But interesting enough: despite the openness Stanford refused to formally recognize the achievements of the non-Stanford students. Instead, the students got a letter with their grade and class rank, signed by the professors. This raised the question around the value of such a certification. Michael Feldstein, a well known blogger on educational technologies, stated in *Inside Higher Ed*: "If individual professors can begin to certify student competence, [then] that begins to unravel the entire fabric of the institution itself."[3] An issue which was raised subsequently by *Inside Higher Ed* was the question whether small institutions or start-up companies could ever expect to attract the same level of interest. Looking at open courses right now, many stay in the field of technology and education (an overview of MOOC examples can be found in Wikipedia[4]). Also George Siemens and Stephen Downes started another open course on „Connectivism and Connective Knowledge" 2011 which by now is the third repetition of the first one under this title, and further courses such as "LAK11 - Learning and Knowledge Analytics" (Spring 2011)[5], "PLENK - Personal Learning Environments Networks and Knowledge" (fall 2010)[6], and "Change: Education, Learning, and Technology!" (Fall 2011)[7]. In summer 2011, the first German open course started under the title "Future of learning" [8] which will be described in this papers along with the results upon different modes and degrees of participation.

The open course "Future of learning"

[3] http://www.insidehighered.com/news/2012/01/24/stanford-open-course-instructors-spin-profit-company

[4] http://en.wikipedia.org/wiki/Massive_open_online_course#Examples_of_MOOCs

[5] http://www.learninganalytics.net/?p=28

[6] http://connect.downes.ca/
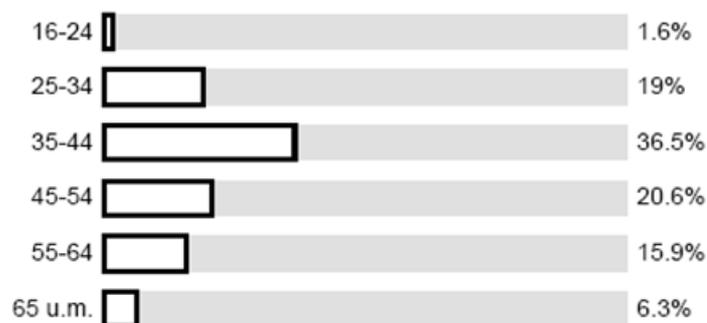
[7] http://change.mooc.ca/

[8] http://www.opencourse2011.de

The open course "Future of learning" was organized by Claudia Bremer, Detlef Kroemker and David Weiss of the e-learning center at the University of Frankfurt, studiumdigitale[9], and Jochen Robes, an e-learning expert and well known blogger[10]. It started in May 2011 and ran 14 weeks until the middle of July. Each week at new topic was addressed, ranging from mobile learning, game based learning, micro blogging, up to media competencies, and learning in social networks. Each Monday, the topic was opened by a blog post by one of the organizers, introducing the topic of the week. Intentionally a video session with experts was held on a Wednesday evening, so the participants could start to discuss the topics without input from an expert. Since open courses are built on the contribution of the participants, this setting was chosen intentionally. Additionally to the blog posts, literature and links were provided to each topic. Blog posts of participants were collected through a tool called *aggregator* which copied especially marked posts on participants' blogs into the main open course blog (in the main course blog participants could not post contribution manually except for comments). Additionally, they provided audio messages, created online newspapers, contributed twitter tweets (which turned out to become one of the main used media tools), and used etherpads. Wednesday evenings, a live video session was provided where experts discussed in a moderated online event with participants and/or held a speech or presentation. Often presentation and discussion were combined in this one hour session, and sometimes two experts discussed a topic or provided two different perspectives on one issue. This video sessions were recorded and provided in an ustream channel. At the end of the week, a summarizing blog post was send out as a newsletter to the enrolled participants which closed the weekly sessions - nevertheless discussions on topics could go on the participants' blogs, comments and other media formats.

Results

The open course "Future of learning" attracted around 900 participants who registered for the newsletter. Around 40 – 60 participated in the video sessions synchronously. About the same number of participants contributed blog posts on a regular base, left comments or twitter tweets. At the end of the course a questionnaire was provided which was previously developed with the participants in an etherpad. Out of the 65 participants who answered the questionnaire 43,5% were employed at an educational institution, 14,5% self employed. The age groups added up as following:

Age group	Percentage
16-24	1.6%
25-34	19%
35-44	36.5%
45-54	20.6%
55-64	15.9%
65 u.m.	6.3%

[9] http://www.studiumdigitale.de
[10] http://weiterbildungsblog.de

Figure 1: Age of participants

The genders were represented nearly balanced (female 50,8%, male 49,2%) and 49,2% of the participants who filled out the questionnaire did not have any children – a fact that was anticipated by the organizers during the course when observing the hours of contributions. Being asked how much time the participants spend per week or day on the open course, they answered as shown in figure 2:

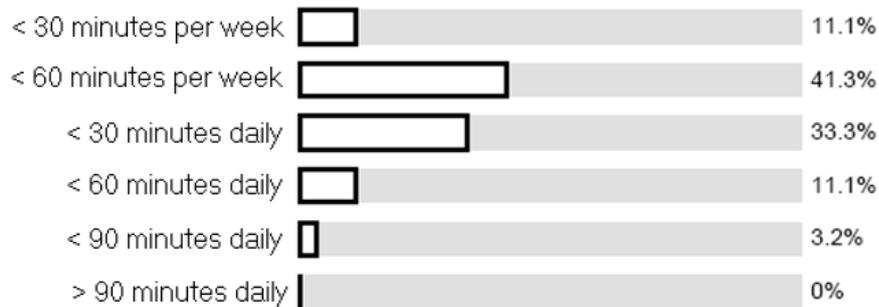|	
< 30 minutes per week	11.1%
< 60 minutes per week	41.3%
< 30 minutes daily	33.3%
< 60 minutes daily	11.1%
< 90 minutes daily	3.2%
> 90 minutes daily	0%

Figure 2: Hours spent on the open course in average

Upon the question, which media tool was most important for their participation, twitter turned out to be the main tool beside the course blog:

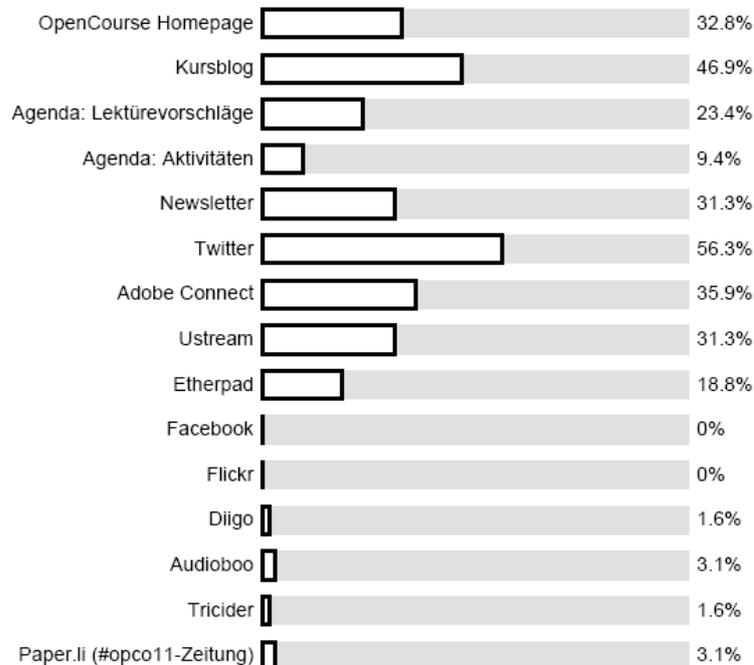|	
OpenCourse Homepage	32.8%
Kursblog	46.9%
Agenda: Lektürevorschläge	23.4%
Agenda: Aktivitäten	9.4%
Newsletter	31.3%
Twitter	56.3%
Adobe Connect	35.9%
Ustream	31.3%
Etherpad	18.8%
Facebook	0%
Flickr	0%
Diigo	1.6%
Audioboo	3.1%
Tricider	1.6%
Paper.li (#opco11-Zeitung)	3.1%

Figure 3: Importance of tools for participation

Further considerations were applied upon the development of engagement and participation over the fourteen weeks, the roles and behavior of different target groups during the course, and the role and function of organizers and facilitators. For example, looking at the specific participation pattern if different target groups it turned

out that self employed and employed trainers in adult education seemed to be a very self confident group with high rates of blog posts while school teachers turned out to be more reluctant to post comments actively and stayed rather observant.[11]

Lessons learned

Out of these considerations and experiences, a new open course is started 2012 in which the organizers seize some of the ideas for improvement which came up with the results around the open course 2011. For example, one decision is to provide longer time periods per topic (two weeks instead of one), more categorized blog posts in order to allow more inputs on later points of time (while the sequence of the course has moved on, it might be interesting still to posts comments on earlier topics), and an more active moderation and more content driven summaries of the weekly events. Also, in this course an option is offered to receive a certificate, and at the end a final face-to-face meeting will take place as a small conference.

Bibliography

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Siemens, George (2005): Connectivism: A Learning Theory for the Digital Age. In: International Journal of Instructional Technology and Distance Learning, Vol. 2 No. 1, Jan 2005 http://www.itdl.org/Journal/Jan_05/article01.htm [2.2.2012]

Wenger, Etienne (1998). Communities of Practice: Learning, Meaning, and Identity. Cambridge: Cambridge University Press.

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[11] More results in this area would be published in a full paper version in case of acceptance.