

Press Release

Internet Trend MOOCs: Learners at openHPI Show a High Success Rate

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Potsdam. The typical participant in free, open online information technology courses is between 30 and 40 years old, male and has worked for more than ten years in a technical profession with a high IT content. This first structural analysis of the so-called Massive Open Online courses (MOOCs) has been undertaken by the Potsdam Hasso Plattner Institute (HPI) one year after the launch of its interactive Internet learning platform openHPI.de. The number of interested online learners worldwide is now around 50,000, said institute director Prof. Christoph Meinel.

Of all the active participants in the past twelve months more than half have successfully earned a certificate upon completion of a course. The openHPI team considers active users those registered participants who do the homework and take part in discussion forums. Every third participant belongs to this group. Meinel reports that "if the total number of those who signed up for our courses is taken into account, then we see an average of 17 percent earning a certificate at the end of a course." In individual courses the success rate is even as high as 23 percent. American providers, on the other hand, report their course completion rate to be in the single digit percentage range, said the HPI director.

Not merely a youth phenomenon

According to Meinel, the success rate among male and female open.HPI participants is similar. The proportion of those completing openHPI courses with a certificate is especially high among those in the 40-50 year age range. "MOOCs are no mere youth phenomenon but an important contribution to the comfortable, life-long learning of professionals," the Potsdam computer scientist said.

The user base is far-reaching and extends from high school students to retired scientists. Prof. Albert Endres (80) from Sindelfingen emailed colleagues his openHPI certificate earned in a course on web technologies as "proof that 80 year olds can keep up with 16 year olds." He reported that "while it sometimes got tricky when it came to certain detailed questions or encoding tactics, I had an advantage in areas of general knowledge." His experiences led the enthusiastic senior blogger to present a detailed look at openHPI in his online diary:

<http://bertalsblog.blogspot.de/2013/07/christoph-meinel-uber-moocs-deren.html>.

Whoever takes part in open online courses has a keen interest in interacting with other participants. The openHPI team recorded an average of 2,900 discussion posts per course. "These discussions are in a sense the heart of our courses and make them into a unique learning experience," said teleteaching pioneer Meinel. As for the tone of the posts, Meinel praised the discussion style of the English-speaking participants: "They are generally more polite than the German participants are." Parallel to the high activity of openHPI users is the low dropout rate. 75 percent of those who submit homework in the first week of the six-week course remain active members up to the final exam.

Most participants learn on the Web between 8:00-9:00 p.m.

HPI's open online courses are used most often on Mondays as this is the day to submit homework. A good 27 percent of visits to the social learning platform take place on the weekend. While activity of online learners peaks between 8:00-9:00 p.m., it is spread out throughout the whole day. An average visit to openHPI lasts about 25 minutes.

Meanwhile, there are openHPI users on every continent and in 114 countries around the world. The distribution differs according to whether the course is offered in German or in English. For courses held in German 87 percent of those who log in are from Germany. With courses in English half of the participants who visit the openHPI site are from other countries. After Germany most of the followers of HPI's IT learning platform are from the U.S., Russia, Great Britain and Spain.

Personal appraisals: a popular topic in the forum

openHPI users react to their learning experience in the discussion forum with no holds barred. For example, Martin S. writes "I learned a lot, and sometimes I swore (why so much abstract theory?), until I found out two weeks later that everything was for a reason". Another participant nicknamed "Datenschnable" ("Data beak") came to the conclusion that "in combination with work or other obligations this kind of learning is almost perfect." Martina G. placed particular emphasis on the aspect of openHPI courses being tuition free. "I consider that an immense social contribution on the part of HPI," she said. A Kyrgyz participant makes a case for learners in regions of the world with a less than ideal infrastructure who are facing both technical problems and deadlines. "I'm writing this homework in Bishkek. The Internet connection here is unstable and in case it crashes it might just stay down for awhile."

In the future more elements of play

At this time the openHPI team led by Institute director Meinel is working on ways to shape the platform for further growth. Through “gamification” increased elements of play will be implemented as a way to raise motivation and expand the learning experience. By way of such elements, users will be able to evaluate how they find forum contributions and answers. Furthermore, “badges” will also be used as awards for outstanding engagement, for example given for a high level of activity in forum discussions. In addition, a new type of navigation will show at a glance which course content has not yet been dealt with.

Fresh university knowledge at openHPI finds a wide audience

The Institute launched www.openhpi.de in September 2012 with a course conducted by HPI founder and SAP co-founder Prof. Hasso Plattner in English. More than 15,000 enrolled in the course on the new In-Memory database technology. 2,132 participants received a certificate upon successfully passing the final exam at the end of October. The second online course, taught by HPI director Prof. Christoph Meinel, was offered in German and covered the technological functionality of the Internet. 11,000 took part in the course and 1,662 participants received a certificate attesting to their successful completion. The third course on the subject of the semantic search in the Internet was held by senior researcher Dr. Harald Sack in English. There were approximately 5,900 course participants and 778 who received a certificate. The fourth course began on April 8th. Led by Prof. Felix Naumann, the six-week course in German focused on the topic of “Data Management with SQL.” The course was attended by a good 7,4000 participants and 1,641 received a certificate. Approximately 7,350 took advantage of the fifth course entitled “Web Technologies” (instructor: Prof. Christoph Meinel). There were 1,726 who earned a certificate upon completion of the course.

openHPI: modeled on Massive Open Online Courses (MOOC)

The Internet learning platform www.openhpi.de at Hasso Plattner Institute (HPI) offers free, open-access online courses for interested participants from all over the world. There are no requirements for attendance. Unique worldwide, the courses concentrating on information technology and computer science are taught in German as well as English. openHPI follows the model of “Massive Open Online Courses” as they were first offered at Stanford University and then later at other elite universities in the United States.

In contrast to “traditional” lecture portals, courses at www.openhpi.de follow a fixed time plan of six weeks. A course is composed of a defined range of offers such as teaching videos, self-tests, regular homework and exam questions. These offers are combined with a social platform where participants can interact with fellow participants and course supervisors. Here, they can also clarify questions and discuss other topics. The participants themselves decide on the nature and scope of their activities.

They can make their own contributions to the course, for example in blog posts or tweets, which they can address in the forum. Other learners then have the chance to make a comment, discuss or expand on what has been said. Thus, learners, teachers and content become linked with each other in a social learning network.

Profile of Hasso Plattner Institute

The Hasso Plattner Institute for Software Systems Engineering GmbH (HPI) in Potsdam is Germany's university excellence center for IT Systems Engineering. It is the only university institution in Germany to offer a bachelor and master program in "IT Systems Engineering" – a practical and engineering-oriented course of studies in computer science, in which 450 students are currently enrolled. The HPI School of Design Thinking is Europe's first innovation school and is based on the Stanford model of the d.school. It offers 120 places for a supplementary study. There are a total of ten HPI professors and a further 50 guest professors, lecturers and contract teachers at the Institute. HPI carries out research noted for its standard of excellence in its nine topic areas, as well as at the HPI Research School for PhD candidates, with its research branches in Cape Town, Haifa and Nanjing. HPI teaching and research focus on the foundation and application of large-scale, highly complex and interconnected IT systems. The development and exploration of user-driven innovations for all areas of life is an additional area of importance. HPI always earns the highest positions in the CHE university ranking.

Pressekontakt HPI: presse@hpi.uni-potsdam.de

Hans-Joachim Allgaier, M.A., Pressesprecher, Tel.: 0331 55 09-119,

Mobil: 0179 267 54 66, Mail allgaier@hpi.uni-potsdam.de;

Rosina Geiger, Referentin Presse- und Öffentlichkeitsarbeit, Tel.: 0331 55 09-175, Mail: rosina.geiger@hpi.uni-potsdam.de