# Flexible, self-directed and bottom-up: Are employees overtaking their Human Resource departments with MOOCs?

Christian Friedl
FH Joanneum
University of Applied Sciences
Graz, Austria
christian.friedl@fh-joanneum.at

Thomas Staubitz

Hasso Plattner Institute

University of Potsdam

Potsdam, Germany
thomas.staubitz@hpi.de

Darco Jansen
European Association of Distance
Teaching Universities (EADTU)
Maastricht, The Netherlands
darco.jansen@eadtu.eu

Abstract— MOOCs are arriving to the business sector. Especially within Human Resource Development and customer training. While some companies offer their own MOOCs, a few companies use external MOOCs to complement their HR offers. However, the awareness and perception level among HR managers in general is still lower as expected. On the other hand, many learners are taking MOOCs to upgrade their skills for the current job or to open up new career pathways. This indicates that employees and business learners are already making use of MOOCs on a global level, which leads us to the assumption that there is a significant bottom-up movement from professional lifelong learners in MOOCs. As there are no specific studies available for the European context, this article sets out to answer the research question if this bottom-up movement in the uptake of MOOCs by employees can be confirmed for Europe.

Keywords – corporate MOOC, Business, HR, customer relations

### I. INTRODUCTION

MOOCs are arriving to the business sector, especially within Human Resource (HR) Development – including building a talent pipeline, onboarding, recruitment – and customer training [1] [2] [3] [4] [5]. Further studies (e.g. [6], [7], [8]) recognize viable opportunities in MOOCs to support labour market-relevant skill development. Next, among six main MOOC trends identified by Shah for Class Central [9], two are particularly targeting the business world: a MOOC audience-shift towards professional learners and a stronger uptake of corporate training.

While some (larger) companies offer their own MOOCs, almost entirely in cooperation with educational providers – examples are Udacity teaming up with Google, Deutsche Telekom with Cadena, SAP teaming up with the Hasso Plattner Institute (HPI), Coursera catering to 500+ companies with a special business programme, or EdX working with 40 companies - a few companies use external MOOCs to complement their HR offers. However, the awareness and perception level among HR managers in general is still lower as one might assume, especially across Europe. According to a study conducted with 55 European business representatives and 1.193 learners, less than 20% of companies have been involved in MOOC-related activities [10]. Besides unawareness, the main reasons identified have been administrative and inexperience-barriers – for example legal, confidentiality and technical issues. On top, the study concluded that MOOCs face (too) high expectations by companies. The "wish list" of HR managers towards MOOCs included cost reduction while offering better networking opportunities, a modernization of training, improved employee retention rates, up-to-date and high-quality knowledge, development of new competencies and full flexibility – expectations which can only partially be fulfilled by MOOCs. Due to all those reasons, many of the interviewed European HR experts preferred to observe the development first, before potentially taking action themselves. On the other hand, when analysing MOOC participation numbers, employees world-wide are already a strong part of the movement. Class Central [11] counted 81 million MOOC learners in 2017, with 40% of the courses targeting an audience identified as "professional lifelong learners". According to another recent study of Class Central [12], 52% of learners are taking MOOCs to upgrade their skills for the current job and 49% to open up new career pathways. When asked about potential benefits realized by a MOOC, more than 50% listed job-related benefits (such as improved performance at a current job, getting a new job or earn a promotion).

Those numbers indicate that employees and business learners are already making use of MOOCs on a global level. This leads us to the assumption that there is a significant bottom-up movement from professional lifelong learners in MOOCs with the intention to improve their job performance, upgrade their skills and optimize their career options. As there are no specific studies available for the European context, this article sets out to answer the research question if this bottom-up movement in the uptake of MOOCs by employees can be confirmed for Europe. It will further discuss which opportunities and challenges this would imply for both European companies and employees.

## II. METHODOLOGY

The methodology applied is a combination of desk and field research following a mixed-methods approach of quantitative and qualitative analysis. Starting with findings derived from literature and studies (some have been mentioned above), a MOOC targeting a business audience has been designed and carried out in the time-frame of February to April 2018. It was hosted on a European MOOC platform with a business-relevant topic ("Intrapreneurship") to attract employees. In addition, multiple course pathways with respective certificates have been offered to cater the flexible needs of a business audience (e.g. a fast track for people with limited time).

This research has been co-funded by the Erasmus+ program of the European Union.

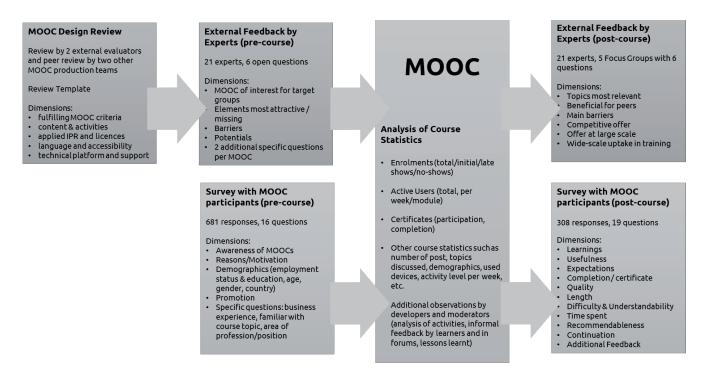


Fig. 1. Methodology of the MOOC evaluation

The MOOC was accompanied by in-depth evaluation with quantitative and qualitative analysis. 681 learners filled in a pre-course survey and 308 a post-course survey after completing the MOOC. This allowed to analyse and contrast expectations and motives for enrolling before and after the course. Next, 21 business and educational experts have been interviewed as well before and after the MOOC to collect additional findings regarding our target groups' motives. The selection of experts was done following the method of theoretical sampling and resulted in a mixture of HR & Innovation managers, eLearning (MOOC) experts, university representatives and consultants. The sample was largely overlapping between pre- and post-course experts - 8 new experts were selected for the post-course focus groups directly from the MOOC (participants that completed the MOOC and identified as experts in the matter).

The pre-course feedback collection was done with a survey, the post-course evaluation took place in the form of focus group interviews. In addition, two external evaluators and two other business MOOC production teams (peer review) evaluated the course design and target group applicability. The whole evaluation process has been monitored by a quality assurance board consisting of seven MOOC experts. Fig. 1 provides an overview to the whole design including dimensions. In the following chapter, the most relevant data of the quantitative analysis in the context of our research question is provided.

The MOOC was offered in two tracks: fast track and full track. The fast track had a duration of 4 weeks with 5 hours study time and consisted mainly of videos, forum discussions, multiple choice quizzes and quite a few hands-on "e-tivities" – practical tasks, such as creating a long list of business ideas and narrowing this down to a short list. The full track added 3 more weeks to work on a larger project- and team-based assignment – pitching the business idea to stakeholders within a fictitious company.

### III. RESULTS

2,916 people enrolled for the course and 70% became active users. In the pre-course survey we determined the participants' backgrounds and their motivation to join the course.

Results show that 61% of the learners had participated in online courses before, but 71% have been new to the MOOC platform used. The majority of the learners that answered the survey came from Europe, especially Germany, Austria and Poland (Fig. 2).

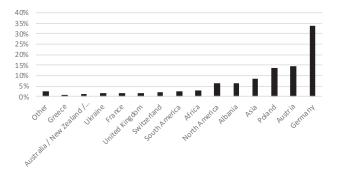


Fig. 2. Pre-course survey (n=681). Participants per country

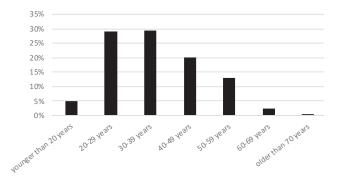


Fig. 3. Pre-course survey (n=681). Age

This could be explained by the fact that the course was offered in collaboration between institutions stemming from those countries. 63% of the learners were full-time employees, 10% part-time employees. The largest non-employee target group were students with 28% (Fig. 4). About 60% of the participants were 20-39 years old, 20% between 40 and 49, 12% between 50 and 59 years old (Fig. 3), 43% of the learners had more than 10 years, 13% up to 10 years and 23% up to 5 years of business experience (Fig. 5). 36% came with a professional IT background, 14% engineering and 13% Marketing/Sales. Interestingly, only 5% had a HR and 6% an educational background (Fig. 6). Hierarchy-wise, 6% derived from the C-Suite (top-level management), 18% from midlevel-management positions, and 15% indicated lower-level management (Fig. 7). 26% of the users achieved a Confirmation of Participation (criteria: visited 50% of the activities) and 20% the Record of Achievement for attaining at least 50% of the points of all graded assignments. For 43%, the course topic was new. Finally, the top three reasons to participate in the course were to learn new things (86%), to improve skills (84%) and to improve career options (57%).

At the end of the course we conducted a second survey, asking about difficulty, length, and quality of the course, but also about how the participants will be able to apply their new skills and knowledge at their daily work. 308 course participants submitted the post-course survey. About 80% of the participants rated the course quality as very good to excellent. The participants' opinion about the length of the course was not that unison, still, for 38% it was very appropriate and for 22% appropriate. 60% considered the

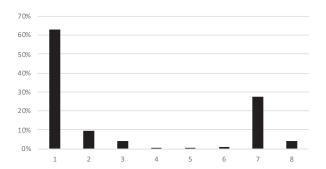


Fig. 4. Pre-course survey (n=681). Employment status

1-Employed full time (35 or more hours per week). 2-Employed parttime (less than 35 hours per week). 3-Unemployed and looking for work. 4-Unemployed and not looking for work. 5-Homemaker, taking care of a family member, or on maternity / paternity leave. 6-Retired. 7-Student. 8-Other

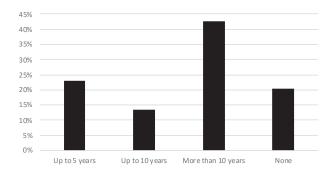


Fig. 5. Pre-course survey (n=681). Job experience

course's difficulty to be just right. 25% found it easy, 11% found it a little too difficult. 80% found the course materials to be very good to excellent, 75% found the course activities to be very good to excellent. 80% had been motivated by the certificate to complete the course. The expectations of about 78% of the participants have been met or totally met. 48% of the participants spent less than 3h/week in the course, 45% spent 3-6h/week in the course. The course-end survey contains a little bias as about 80% of the survey participants has either completed the whole course or has at least seen all the contents that they have wanted to follow. The most interesting question for us in this context was if the participants will be able to apply their new skills and knowledge in their daily jobs. The results here (see Fig. 8.) are particularly encouraging.

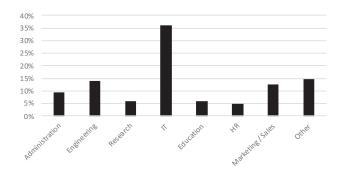


Fig. 6. Pre-course survey (n=681). Area of work

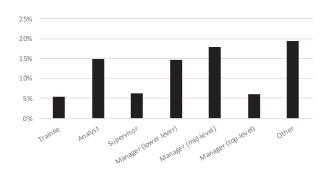


Fig. 7. Pre-course survey (n=681). Position

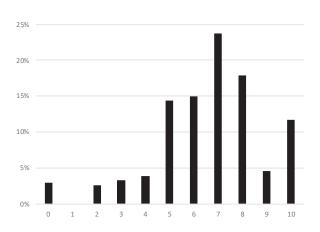


Fig. 8. Post-course survey (n=308). Can you make use of the learned competences at work? 0–not at all, 10–this will help me extraordinarily.

# IV. DISCUSSION, FINDINGS AND CONCLUSION

The bottom-up movement can be confirmed for Europe, at least in this single case study. It can be observed that employees are overtaking their HR departments in the MOOC domain by adopting this new medium for a self-directed upgrade of job-related skills.

The MOOC was not an official part of any company HR programme. To our knowledge, 15 European companies shared the course information to their employees, but participation was on a voluntary base and informal. It reinforces our hypothesis that the large number of European business learners in the course — many with significant business experience — came with the main motives to learn new aspects, to upgrade competences and to improve their job options.

This was also partially confirmed by our expert interviews and enrolment data. The majority of learners came by themselves, or at least did not register with an official company email address. Experts stated that many employees prefer to stay private and self-determined when it comes to learning. On a side note, we also had students that needed to complete the MOOC as part of their study programme, and this mandatory participation added a different taste to their course experience. In addition, this explains the comparatively (relatively) high number of students in the course, which was primarily addressing employees.

Several experts also mentioned that they see a high potential in MOOCs as a complementary "official" company HR offer, but that the openness of the format needs a change of culture in many companies first. Second, the majority of MOOCs would need adaption to the specific company's context. Ideally, the online offer would be complemented with local add-ons and face-to-face activities, especially when it comes to teamwork MOOC assignments. By this, this educational offer could work as stimulus to a broad number of employees in a company, and those who got "switched on" could follow the topic further in smaller, face-to-face learning groups.

This "bottom-up participation" opens up further opportunities and trends. Most of the administrative key barriers for companies identified in previous studies (legal limitations, confidentiality issues, technical issues) could be resolved by being moved away from the company itself as the company is not the official host of the MOOC anymore. Further, wrong perception/expectations are not an issue for the company anymore, as the MOOC is not an official company HR recommendation and the learners could choose by themselves whether to participate/complete the course or not.

This leads to our last finding, resulting from our course evaluation, but also the experts' insights. HR managers' unawareness with MOOC is added up with time constraints. Many prefer to purchase a complete offer instead of taking the time to search for an appropriate MOOC, examine it and eventually approve it for the internal use. As so many of their employees are obviously already using MOOCs, it seems advisable for HR managers to speak to them, award their proactive behaviour, appoint them as testimonials and make use of their experience to upgrade their own HR programme. Of course, this bottom-up course (MOOC) selection may lead to a loss of control of HR managers over their own agenda —

but when examining the latest MOOC statistics closer, has this process not already started?

Limitations: Although we strived to generalize our research findings to a broader context by including additional opinions from experts across Europe and comparing our results with international studies, the findings are solely based one case study. Next, the authors are aware that it will also need the companies to further integrate MOOCs into HR – experts mentioned the needs for a strategy to convince key decision-makers here, which is part of our future work.

### V. FUTURE WORK

The paper at hand is part of a larger research project. Next to three MOOCs that have been conducted by the consortium partners in various styles and on different platforms, the outcome of this project is the so-called MOOC BOOK that collects an abundance of information for companies, higher education institutions and others on possibilities to use and/or provide MOOCs. Next to wrapping up the final reports on the project, we're currently integrating all the comments that we have collected throughout the project to produce MOOC BOOK2.0, which will be available for all interested parties under a Creative Commons license from November 2018.

### REFERENCES

- Grossman, R., "Are massive online courses in your future?" Organizational and Employee Development Special Report, SHRM, 2013
- [2] Iversity, "KPMG und iversity: Online-Kurs zur Zukunft der digitalen Weiterbildung", 2015.
- [3] Renz, J, Schwerer, F., Meinel, C., "openSAP: Evaluating xMOOC usage and challenges for scalable and open enterprise education", ICELW 2016 Proceedings, 2016.
- [4] Radford, A.W., Coningham, B., Horn, L., "MOOCs: Not just for college students - How organizations can use MOOCs for professional development", Employment Relations Today, 41(4), 1-15, 2015.
- [5] Sreeleakha P., Manikandan, N., "The way forward with MOOCs Professional development perspectives", American International Journal of Research in Humanities, Arts and Social Sciences, 15-514, 2015.
- [6] Calonge, D. S., Shah, M. A., "MOOCs, Graduate Skills Gaps and Employability: A Qualitative Systematic Review of the Literature", IRRODL, Volume 17, Number 5, 2016.
- [7] Cedefop, "Skill shortages and gaps in European enterprises: striking a balance between vocational education and training and the labour market", Luxembourg: Publications Office. Cedefop reference series; No 102, 2015.
- [8] Patru, M., Balaji, V., "Making sense of MOOCs. A guide for policy-makers", United Nations Educational, Scientific and Cultural Organization (UNESCO), Fontenoy, 75352 Paris 07 SP, France, 2016.
- [9] Shah, D., "MOOC Trends in 2017: Online degrees and corporate learning", Class Central, derived from https://www.classcentral.com/report/mooc-trends-online-degrees-corporate-learning/, 2018.
- [10] Driha O., Friedl C., Jansen D., "Identification of opportunities of MOOCs for the business community (organisations)". BizMOOC report 1.3a, http://bizmooc.eu/mooc-manual/needs-and-gaps-to-moocs/report-businesses/, 2017.
- [11] Shah, D., "A product at every price: A review of MOOC stats and trends in 2017", Class Central, derived from https://www.classcentral.com/report/moocs-stats-and-trends-2017/, 2017.
- [12] Shah, D., "Class Central learner survey 2017: MOOC users highly educated, have experienced career benefits", Class Central, derived from https://www.class-central.com/report/class-central-learnersurvey-2017/, 2017

1

<sup>1</sup> http://mooc-book.eu