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Scenarios for the Use of OpenCourseWare in the Context of Student Mobility

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Abstract

In the context of a European OpenCourseWare project, funded by the EU Lifelong Learning Program, a handbook has been created with the purpose of showing how students and universities throughout Europe can get the most out of OpenCourseWare in order to become part of new learning communities and facilitate virtual exchange across borders. The main part of the handbook is the presentation of the Student Mobility Cycle that has been developed within the project and that defines five phases in the process of a student participating in Student Mobility. This article describes the five phases, each consisting of one or more scenarios that show the added value of OpenCourseWare in that particular phase.

Keywords: Learning Communities; Lifelong Learning; OpenCourseWare; Open Education; Student Mobility; Virtual Student Mobility

Introduction: the Context of the Student Mobility Handbook

In 2012 five European universities and three third party organizations started a European Lifelong Learning Program project[1] with the main goals to (1) create the preconditions for a strong European OpenCourseWare (OCW) framework and (2) to create guidelines and informative handbooks to support other universities who want to use OpenCourseWare.[2] The particular context of this project is clear in its full title: "OpenCourseWare in the European Higher Education Context: how to make use of its full potential for virtual mobility." The deliverables of the project thus seek to enhance quality and increase the usage of online courses and therefore facilitate virtual mobility.

One of the deliverables is a Student Mobility Handbook. Under the notion "Student Mobility," we understand students in higher education moving to another institution inside or outside their own country to study for a limited time.[3] This is clearly exemplified in the EC Erasmus Programme.[4] We speak about Virtual Student Mobility when a similar experience is achieved without the student physically moving to another place[5] (De Gruyter *et al*., 2011; Van Petegem, 2011). With the handbook, our aim is to show how students and universities throughout Europe can get the most out of OpenCourseWare to become part of new learning communities and facilitate virtual exchange across borders. The main part of the handbook is the presentation of the Student Mobility Cycle that has been developed within the project and that defines five phases in the process of a student participating in Student Mobility.

Methodology

The scenarios were obtained through several workshops, where we collected input from participants coming from the Higher Education (HE) world[6] (Tovar, 2012). They were subsequently validated
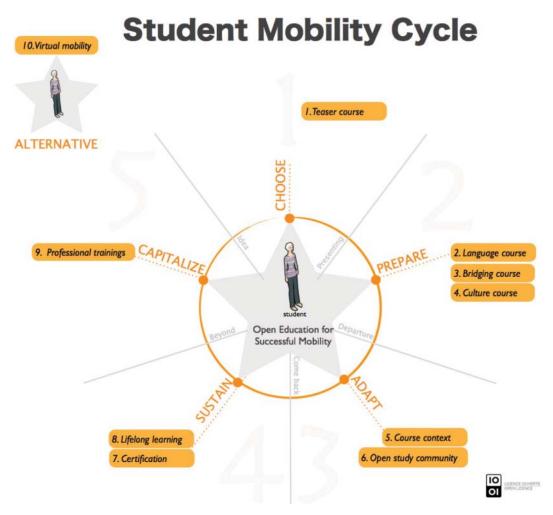
Figure 1: Student Mobility Cycle

at international offices from participating universities. A survey was held amongst students about OpenCourseWare and Virtual Mobility, where these scenario's were presented (OCW Consortium Europe, 2013). This more specific survey adds to the research already done on OCW user feedback (OCW Consortium, 2012).

The Student Mobility Cycle

We opted to describe the possible scenarios of using OCW –so, open courses offered for free by HE institutions- in the context of Student Mobility as a cyclical process which can be divided into five different phases, as depicted in figure 1, above.[7]

When discussing these scenario's, we are not hinting at the use of actual, existing OCW sites –such as MIT (http://ocw.mit.edu), Irvine (http://ocw.uci.edu), TU Delft (http://ocw.tudelft.nl) or KU Leuven OpenCourseWare (http://ocw.kuleuven.be)- as many of them will currently not offer adapted content for the scenario's described here. We just list possible courses that can meet such a scenario.

The first phase involves study selection. In this phase, candidate students are gathering information about their potential future studies in order to choose a study. Taking an Open Course from different universities as teaser courses, can be invaluable to get a better perspective/understanding on what particular institutions offer. Once a student has chosen the study he/she wants to

commence, he/she can start preparing himself for this course, e.g. by taking Open Courses to learn a foreign language, to gain insights in the learning culture of the institution (certain habits peculiar to the institution), or he/she can use an Open Course to fill what we call his "knowledge gap." A lack of knowledge in specific areas can be bridged through Open Courses. In the next phase, the phase of the actual study, OpenCourseWare can be used as an extra learning resource: learning materials provided by the teachers of the courses one takes can be complemented by Open Educational Resources and OpenCourseWare from other Higher Education institutions. This helps the student in adapting to the context he/she finds him/herself in.

The fourth phase is the phase where a student wants his learning efforts to be validated, e.g. in the form of credits and where a student wants to keep updating the acquired knowledge and/or skills from that particular study, using OpenCourseWare, whether that comes from a university where he/she took a course or not. We call this fourth phase the sustaining phase. This scenario of Lifelong Learning, in our opinion, is to be distinguished from the professional trainings in the capitalizing phase. Lifelong Learning happens when one perceives a learning need and is based on intrinsic motivation. Professional training however is mostly requested by the company one is working at. A separate phase, which is not to be put chronologically after the five previously described phases, is a possible alternative for students who, for several reasons, cannot travel abroad. Virtual student mobility is a well-known alternative for actual student mobility, meaning that students can take (open) online courses as part of their curriculum, but without travelling physically to another institution. It goes without saying that in this case too, OpenCourseWare can be a valuable alternative.

Every phase consists of several scenarios. The orange blocks next to the text contain the names of each of the scenarios in order to provide a visual link to the cycle above (figures 2 to 7).

Phase 1: Choose

Before going to university one needs to make decisions as to the appropriate course of study. In this selection process several questions might arise such as "what is it like to take classes at a university?", "what is it like to follow a class with 300 other students instead of 20?", "what do scientific articles and readings look like, and will I be able to understand them?", etc... Using OCW and its educational materials could be useful to provide prospective students with information about the new study they might be uncertain about (figure 2). Such materials can help to understand the real difficulty of the content or the organization of the course structure before the student officially enrolls.

Deciding on the appropriate course of study as well as choosing an appropriate institution normally involves comparing several higher education institutions. When those institutions offer OCW, a student can assess the type of materials offered and thereby increase his confidence as to pursue his studies outside his usual environment.

Phase 2: Prepare

Once a student has chosen the university he/she wants to attend and the study he/she wants to commence, he/she has to start preparing for that particular study. Several problems might indeed arise, such as the need for learning the language of the destination or encountering a knowledge gap. Both scenarios are described below.

Using OCW can fill a "knowledge gap" (figure 3). There might be a difference between the curriculum in the university of origin and the university of destination. When a student couldn't take a certain course in his curriculum that he/she should have had to be able to take a course of a
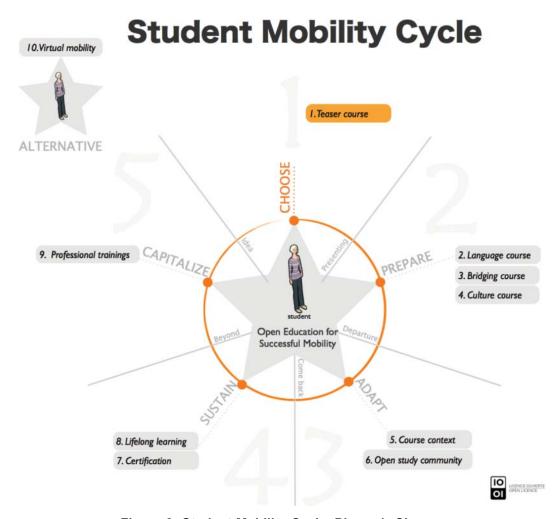
Figure 2: Student Mobility Cycle. Phase 1: Choose

higher level at the university abroad, he/she can autonomously take the open course in order to fill the knowledge gap. This is particularly of interest when the study abroad concerns a doctoral study, e.g. when someone wants to update or broaden his knowledge of statistics in order to conduct his/her PhD research. In addition to filling the knowledge gap, OCW can also be a solution when a doctoral researcher doesn't manage to attend certain classes because of the combination of several tasks -often PhD students work as an assistant for professors at university, or they combine a job with a doctoral study.

An Open Course of the university of destination can be used to assess Language requirements for studying at a particular institution. Using the openly available resources might provide answers to questions such as: "will my language mastery be sufficient to understand the lecturers?", "will I be able to study a scientific text in a foreign language?", etc . . . If it appears that the language skills of the student are indeed insufficient, he/she could take an open language course in order to improve his competence. When a student prepares to study abroad, he/she could therefore use OCW to acquire communication skills in the required language and to fulfill the conditions of admissions in the university of destination.

An open language course can also facilitate the integration into the academic and cultural world of destination. After all, language courses often contain a lot of cultural background about the countries where that language is spoken.
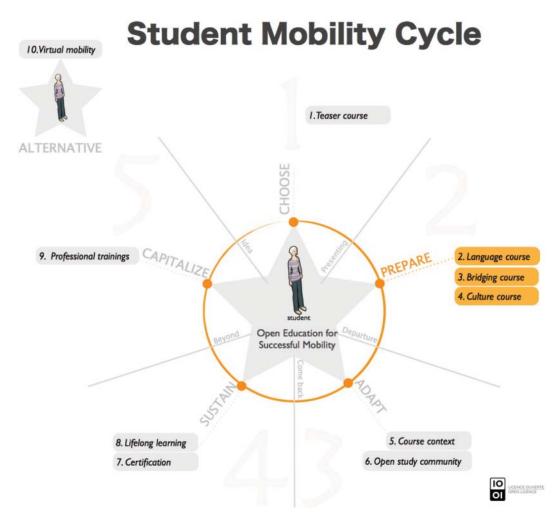
Figure 3: Student Mobility Cycle. Phase 2: Prepare

In short, OCW can encourage students to perform (virtual) mobility periods outside of their country of origin, because it introduces them to the new institution and it can negotiate the emotional barriers that are created when planning a move to a place with another culture and possibly a different language.

Phase 3: Adapt

When a student is following courses at university of destination he/she will often stumble upon references to other local courses that local students might have taken but that are not directly accessible to him. These are contextual elements that are important for a correct understanding of the course content and that need to be clarified. Good OCW is so designed that it makes explicit dependencies of the open course to other materials and ideally refers to other open content to resolve these pointers. More broadly, courses are always also embedded in cultural practices and unspoken local conventions which are part of the local learning community. A university might consider courses specifically designed to explain and make explicit these kinds of cultural assumptions that prove to be a frequent hurdle for foreign students. An open course "introduction to our campus life" makes as much sense as a course on local educational terminology (figure 4).

By joining open online learning communities the student can organise contacts with local students in direct relation to the course content, e.g. by getting information from local senior students, which
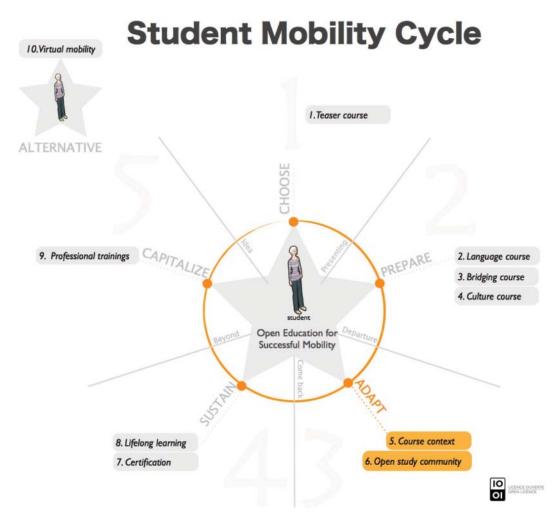
Figure 4: Student Mobility Cycle. Phase 3: Adapt

partly compensates for the disadvantage of having a real social network in place from the start. But, conversely, the student can remain active in the social network of his home base by taking part in open online communities of the online education of his home university. In general a real open course should also be a course where students have the possibility to add content to the course and share it with each other. The main message is that the study of an open course comes to its full potential when the student actually becomes part of a social learning network or open study community related to that course. Such a learning community can go beyond students and teachers to also include external stakeholders that might have a relation with the field of study. An example can be found in a master of Computer Sciences where students assess certain software and have to blog about it. Interestingly, due to the fact that this blogging happens openly, the developers of the software are able to react to the students' assessments. This open and authentic learning situation is a win-win-situation for students, teachers and stakeholders in the domain of computer sciences.

The added value of an Open Community over membership driven communities of practice is that the student typically has not yet any formal responsibilities towards the field of study and should be able to roam free through this knowledge space without having to take up responsibilities and commitments that he/she is not prepared to tackle. The experimental status of the learning experience is pedagogically fundamental.
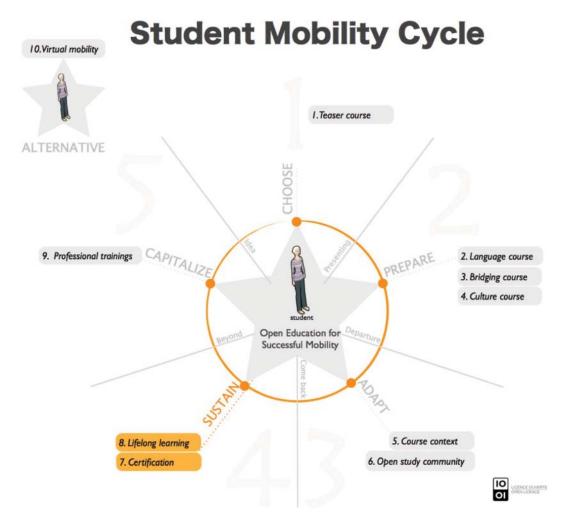
Figure 5: Student Mobility Cycle. Phase 4: Sustain

Phase 4: Sustain

Open educational resources, open courses and open information about course metadata can help facilitate course certification for the student, in the form of certificates of accomplishment, badges, credits or credit transfer (figure 5). Exemption for Accredited Prior Learning (APL) can be attributed more easily when study materials and student activities are publicly available as OERs online.

When a student graduates and becomes active on the labor market, his knowledge will need to stay up-to-date. When the course(s) he/she took are Openly available, there is the opportunity to have access to the renewed and relevant content in the courses and to read and learn about state of the art research results concerning their field.

Moreover he/she can in return complement the course with practical knowledge and insights he/she gained from working in the field of the Open Course. A real Open Community can be constructed.

Phase 5: Capitalize

Professional trainings are in a certain way a form of Lifelong Learning. We opted to distinguish both in that sense that Lifelong Learning is motivated from within a person. One keeps learning because he/she wants to, because he/she feels a certain learning need, and because he/she truly wants to
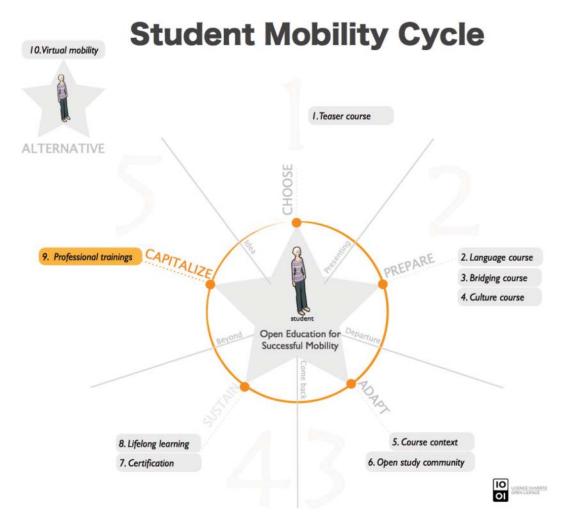
Figure 6: Student Mobility Cycle. Phase 5: Capitalize

achieve certain knowledge or skills. Professional trainings on the other hand, are often required by but also provided by the company someone is working for. Companies often organize internal trainings to certain groups of employees to teach them new skills or to update them about the procedures that are common in the organization. Usually these professional trainings are closed for anyone outside the organization. Moreover, often they are not accessible for employees of that particular company not belonging to the specific target group the training is developed for. We believe that when these trainings are made accessible for all the employees within a company, and even for anyone also outside the company, that an extra target group might be served, namely the unemployed who can use the content of these trainings to increase their job opportunities on the labour market (figure 6).

   A second issue in this regard is the fact that there is a discrepancy between the kind of skills that companies need from employees and what they actually get when people start working for them. If companies open up their training materials they showcase their needs and requirements prominently. This can be easily linked to the teaser courses as described in Phase 1 of this Student Mobility Cycle. Having access to training materials beforehand can help graduates to (1) get a perspective on what the employer wants, (2) needs better prepare for their prospective roles and (3) possibly be even more successful during the job application process.
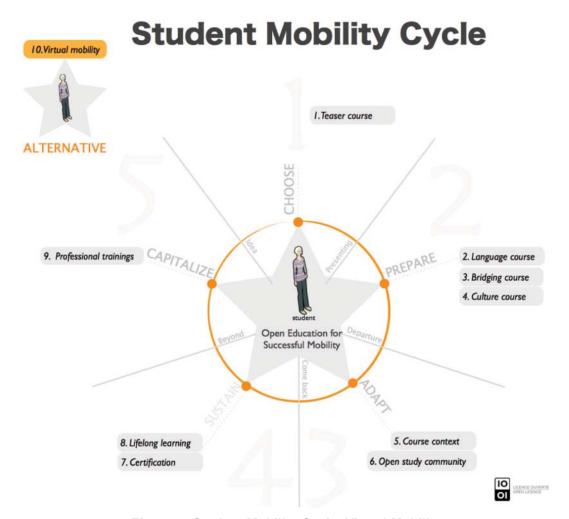
Student Mobility Cycle

Figure 7: Student Mobility Cycle. Virtual Mobility

Virtual Mobility as an alternative for physical Student Mobility

Since not everyone has the possibility or the wish to travel abroad, students can opt to be virtually mobile (figure 7). Virtual Mobility is defined by the European Commission (2007) as

> a complement or as a substitute to physical mobility (Erasmus or similar) in addition to a type of independent mobility which builds on the specific potentials of on-line learning and network communication. It may prepare and extend physical mobility, and/or offer new opportunities for students/academic staff who are unwilling or unable to take advantage of physical mobility. (...) Full academic recognition is given to the students for studies and courses based on agreements for the evaluation, validation and recognition of acquired competences via Virtual Mobility. In this context, cooperation agreements are key to ensuring sustainable mobility schemes. (p. 12)

Given this definition it might become clear that for several of the above-described scenarios a virtual equivalent exists. It all boils down for students to take (open and online) courses from universities other than their own institutions, with the goal to experience an international study and to include that course in their study programme at the home university.

Conclusion

In this paper several scenarios are offered on how to use OpenCourseWare courses in the context of Student Mobility, whether that is virtual or not. These scenarios are defined as a cyclical process

involving five distinct phases: *choose, prepare, adapt, sustain, capitalize.* The alternative scenario of Virtual Student Mobility is presented as well. In all these cases, we argue that OCW courses provided by host institutions offer a distinct advantage to students. We also indicate which kind of support those courses can offer in each student phase. Higher Education Institutions are encouraged to consider offering these kind of OCW courses to the benefit of their Student Mobility policies.

Acknowledgment

Notes

[1]   EC funded Life Long Learning project "OpenCourseWare (OCW) and its potential for virtual mobility and Life Long Learning in the European Context—518373-LLP-1-2011-1-NL-ERASMUS-ESMO, see Retrieved from http://www.opencourseware.eu

[2]   OpenCourseWare are course lessons created at universities and published gratis via the Internet, see Retrieved from http://en.wikipedia.org/wiki/OpenCourseWare; originally offered by MIT: Retrieved from http://ocw.mit.edu/

[3]   See "Academic Mobility" Retrieved from http://en.wikipedia.org/wiki/Academic_mobility

[4]   Retrieved from http://ec.europa.eu/education/index_en.htm

[5]   Retrieved from http://www.eadtu.nl/virtualmobility-about-virtual-mobility.html

[6]   Workshops held at OCWC Cambridge 2012 on April 16th, 29/30 May, Stakeholder workshop Leuven 29/30 May 2012, Workshop Guidelines for the Use of OpenCourseWare for Virtual Mobility at Online Educa 28/11/2012, Madrid 11–12 june 2013, see Retrieved from http://www.opencourseware.eu/events/

[7]   Scenario infographics: Sophie Touzé.

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