MOOCS FOR FOREIGN LANGUAGE LEARNING: AN EFFORT TO EXPLORE AND EVALUATE THE FIRST PRACTICES

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Abstract

Access to open education, open content and open educational resources (OER) is gaining more and more attention worldwide. According to The New York Times, 2012 was the "year of the MOOC" (Massive Open Online Courses), while 'CourseEra', the largest 'MOOC' provider, reported registering 2.8 million students in March 2013, partnerships with 62 high prestige Universities and hundreds courses in several languages [1]. Recently 11 countries have joined forces to launch the first pan-European 'MOOCs' initiative, with the support of the European Commission (http://www.openuped.eu) in order to reshape EU education via open educational environments and open educational resources (OER).

The arrival of MOOCs has already changed dramatically the idea of education and has oriented learners to educational courses that are open, participatory, distributed and at the same time support the idea of lifelong networked learning.

Language competencies and intercultural skills will more than ever be a part of the key qualifications needed to successfully work and live in this new reality. The need for MOOCs related to language education has already paved the way for the creation of the first "open and massive" foreign language courses.

Many researches have already shown that the web is a rich field in putting real communication to practice, and explore new forms to exercise one's language comprehension and fluency. Specifically, web 2.0 is participatory, immediate, authentic and it engages the community. All these are key features in language learning process and make Web 2.0 a promising language learning environment.

However, the design and implementation of MOOCs with focus on language learning has not been explored yet and this paper aims to fill this research gap. More specifically the paper will first present the requirements for a successful online Language Learning course and then it will continue with the exploration of the use of MOOCs in Language Education. Next an evaluation of the platforms and the instructional design used so far for Massive Open Online Language Learning Courses will follow. Finally, after the presentation of possible concerns and recommendations regarding the Language Learning MOOCs, there will be a discussion that aims to draw the first conclusions of this research and share some future research plans.

Keywords: MOOCs, MOOLCs, Foreign Language Learning, Language Education, OER.

1 INTRODUCTION

Distance Education has traditionally provided access to instructional programs for isolated learners who had limited interaction with the instructor or other students. The educational material had usually a predefined format (i.e. prepackaged text, audio, and/or video courses) and promoted mostly the independent learning [2]. Nowadays with the advent of information technologies this perspective has dramatically changed. Even though the distance between learner and instructor still remains as a basic characteristic of distance education, both interactivity and collaboration play an important role in this new online educational reality. In fact, we can describe this online educational environment as rich, open, participatory, distributed and constantly supportive of the idea of lifelong networked learning.

Lately, many educational organisations and institutions, private and public, all around the world have decided to take the great opportunity to do investments in instructional design, course and platform development supported by emerging technologies in order to successfully deliver their programs to

large student populations and most of the times free of cost for participants. This new educational phenomenon is called Massive Open Learning Courses (MOOCs) and has been embraced by 2.8 million students in March 2013, according to 'CourseEra's registrations. This is the largest 'MOOC' provider who offers courses in several languages in collaboration with 62 high prestige Universities.

This growing interest for massive and open online learning opportunities opens big opportunities for Language Education. From one side, Web 2.0 and Web 3.0 technologies successfully provide an interactive and authentic language learning environment that supports collaboration, autonomous and self regulated learning living behind obstacles like lack of opportunities for interaction [3], authentic material, peer assessment, collaborative projects, etc. On the other side, there is an enormous and continuous educational need for learning foreign languages, not only in Europe but in an international level, as a result of the 'globalization' of the society in which we live, work and learn.

In this paper, the authors will discuss the basic characteristics of a successful online Language Learning course and its transition to a Massive Open Online Language Course (MOOLC). Next, we will continue with the description of our research that is focused on the exploration of the current MOOLCs initiatives globally. In the following section, we will present the findings of the evaluation of the MOOC learning environments for Language Education according to core course elements of a Massive Open Online Interactive Language Learning Environment (MOOILLE). At the end, we present some final conclusions and discuss future research steps.

2 TRANSITION FROM ONLINE LANGUAGE COURSES TO MOOLCS

2.1 What is a MOOC: Overview-History

According to Yuan and his collaborators [4], the term Massive Open Online Courses (MOOCs) was first introduced in 2008 by Dave Cormier in order to describe the online course "Connectivism and Connective Knowledge" that was organized by Siemens and Downes. Even though this course was initially designed for a small group of students who had paid for this, the number of participants reached to more than 2,300. These people participated in the course without paying fees or gaining any credit [5].

There are several interpretations of MOOCs. The following definition that clearly describes what a MOOC is: *"A MOOC is a course of study made available over the Internet without charge to a very large number of people: anyone who decides to take a MOOC simply logs on to the website and signs up*" [6].

2.1.1 MOOC Pedagogy: cMOOC or xMOOC

Generally it is known that all Massive Open Online Courses share two common key features: openness and scalability. That means first that anyone can have open access in an online course for free and secondly, that courses are designed to support an indefinite number of participants [5]. According to many researchers and practitioners [7,8,9], the interpretation of what MOOCs are, is not simple. In fact there is a distinction of MOOCs in two types: 1) The cMOOCs and 2) x-MOOCs that was drawn by Stephen Downes. The "x" is adapted from MITx and EdX. The main reason for this categorization was the different pedagogical foundations of these courses. x-MOOCs are based on the cognitive-behaviorist pedagogy and support a tutor-centric model that establishes a one-to-many relationship to reach massive numbers category [7]. On the other hand c-MOOCs support the explicit principles of connectivism autonomy, peer-to-peer learning, social networking diversity, openness, emergent knowledge and interactivity [9]. These different pedagogic approaches promote different type of activities. xMOOCs offer technology-enriched and teacher centered instruction [10] and students are encouraged to follow a series of concrete self paced activities that offer automated feedback. cMOOCs though provide a platform to explore new pedagogies beyond traditional classroom settings [11] and introduce activities of collaboration, aggregation, remixing and feeding forward the resources and learning, Openness has also a different meaning in both types of MOOCs. In xMOOC it means that the courses are open for anyone to take while in c-MOOCs this means that everyone, both novices and experienced participants, are able to merge together in the same space and communicate and interact with each other [7]. Generally, most of the commercial MOOCs use a cognitive behavioral pedagogical model [12].

In Language Education the educational model of a Massive Open and Online Language Course needs to be explored carefully. Massive and Open Language Education from distance supported by powerful

emerging technologies offers unique pedagogical challenges but creates problems at the same time. In the following sections the authors will try to explain when a MOOLC can be an efficient language learning environment.

2.2 Key steps for designing an efficient learning environment for MOOLCs: a proposal

2.2.1 Distance Language Learning

According to Anderson and Dron [12], there are three generations of distance education pedagogy: a) cognitive-behaviorist, b) social constructivist, and c) connectivist. They explain that all generations have played an important role in distance education, have evolved in tandem with the technologies and are very much in existence today [12]. Language Learning from distance followed as well the evolvement of the same pedagogies searching every time the most efficient ways to find opportunities for meaningful interaction. Michael Moore has created a model, the "Three Types of Interaction" model, in order to define the three components of quality interaction that can take place in educational contexts: learner-content, learner-instructor, and learner-learner interaction [13]. This model can define also the quality of interaction in distance language education. A highly interactive environment is a key component for an efficient learning environment. The Second language acquisition theory indicates that not only do learners need comprehensible input [14] (i.e. activities to practice their reading and listening skills) but also opportunities for output [15] (i.e. activities to practice their oral and discourse skills). In distance language courses input can be easily provided but not output. As Long describes [16] learners must have the opportunity to interact in the target language to negotiate meaning, make input more comprehensible, get feedback, and recognize the need to change their language to achieve successful communication. With the advent of emerging technologies the opportunities for authentic material and communication have multiplied and this is a big challenge for language teachers, course designers and developers. Of course before they design a course they should take under consideration several important factors (i.e pedagogy, tools, accessibility, etc) that will be discussed in the following paragraph.

2.2.2 Designing an efficient learning environment for MOOLCs

A considerable amount of research has been conducted in the last decades with regard to distance language learning, and generally to Computer Assisted Language Learning that has shown the tremendous possibilities that technology can offer in the field of language learning. Based also on some of the theories presented in this paper earlier, it is clear that a successful and promising language learning environment should be interactive in multiple ways. It should provide opportunities for authentic communication as well as access to interactive and motivational educational material to learners. In this way they will be able to put real communication in practice, explore new forms of language, find out about the culture of the target language and generally practice and acquire all the core language skills.

Designing an efficient language learning course or developing a language learning platform is a complicated process. Apart from the factors already analyzed, there are some other factors that need to be considered such as; the learners' needs, the mode and degree of interaction, the level of collaboration or autonomous and self paced learning, the type of assessment etc. Besides that some practical issues such as the number of participants, the tech infrastructure available, the usability of the online environment, the accessibility, the time and cost, need to be considered carefully as well.

A difficult question that needs to be answered is which are the core course elements of a Massive Open Online and Interactive Language Learning Environment (MOOILLE). In other words, when a course is open to a big number of learners who need to learn and practice a foreign language online which are the basic elements that need to be taken under consideration? For sure it is the 'M' in MOOCs that influences the unique nature of the design learning but not only this [17].

Inspired by a framework which emphasizes the nature of collective intelligence of MOOCS and is used for the design and evaluation of MOOCs [17], we propose a list/framework of the core course elements that a MOOILLE should have [Fig. 2]. More specifically we have categorised all of them in 6 dimensions: a) Content; b) Pedagogy; c) Assessment; d) Community; e) Technical Infrastructure and f) Financial Issues. Each dimension should be considered carefully by instructive designers, language teachers or developers who have interest in designing or evaluating a MOILLE. We propose this framework to be used as a check list. As an evaluator you can answer to the following questions: Does my MOOLC environment have these elements in order to be interactive and efficient? If yes, in

what degree (high, medium, low, none)? Do I want to make any changes? As a designer you can simply check every dimension of this list in order not to forget any important element during the design of a MOILLE.

1. CONTENT: Authentic educational resources; Use of multimedia/tech; Variety of activities that promote all basic language skills and support cultural awareness.
2. PEDAGOGY: Communication (peer-peer, student-teacher, open class community); Collaboration (CL) (group projects, forums etc.); Collective intelligence; Autonomy (Autonomous/Self-paced/SL Learning/Reflection); Engagement-Motivation; Playful/Game based learning; Number of instructors.
3. ASSESSMENT: Ongoing Assessment/ Scaffolding (peer-peer, student-teacher, open, automated) Final Assessment; Evidence-Based improvement (data mining, Analytics); Feedback (comments, reviews).
4. COMMUNITY: Social Community building as Massive & Open (Social Media – third part tools integration & other tech tools).
5. TECHNICAL INFRASTRUCTURE: Max number of participants, Platform's performance, Security, Usability).
6. FINANCIAL ISSUES: Profit. Charges for Course or Certification/ Accreditation.

In the following sections of this paper, will be presented the methodology and the results of an exploration of the current MOOLCs initiatives. Then, their learning environments are evaluated through the lens of a MOOILLE, based on the list that has been presented in this section.

3 MOOC IN LANGUAGE EDUCATION: RESEARCH METHODOLOGY

3.1 Exploration of MOOC initiatives in Language Education

The research methodology that has been adopted by the researchers followed the following stages:

a) Exploration of current MOOLCs initiatives
b) Classification of the MOOLCs initiatives according to concrete criteria
c) Evaluation of most representative MOOLCs initiatives using the MOOILLE framework
d) Analysis of the results and conclusions

3.1.1 Exploration of current MOOLCs initiatives

Apart from the well known MOOC providers like *Coursera, Udacity, edX, NovoED*, etc, the researchers used a list of very known MOOC portals, aggregators and less known providers in order to find the massive pen language courses that are offered currently on line. Some representative examples are the following:

1. **OpedupED** (http://www.openuped.eu/): This portal of a pan-European initiative offers around 40 online courses from several institutions and it covers a wide variety of subjects. They are free of charge and available in 12 different languages.
2. **Coursade.com** (http://www.coursade.com/): This is an aggregator of 9,364 online courses. It updates results by provider, school, category, format price.
3. **MOOCs.co** (http://www.moocs.co/ www). This is the leading online Global Directory of Massively Open Online Courses (MOOCs) Providers developed by MOOCs University (www.MOOCsUniversity.org
4. **My education path** (http://myeducationpath.com/courses/): This is a site that helps anyone to find free or cheap online courses (MOOCs). There is also the possibility to share comments and reviews.
5. **Class Central** (https://www.class-central.com/): This is a free online course MOOC aggregator from top universities like Stanford, MIT, Harvard, etc. offered via *Coursera, Udacity, edX, NovoED*, and others.
6. **OpenCourseWare Consortium** (http://www.ocwconsortium.org/courses): This is an online learning portal where anyone can search and find the course of his/her preference. A worldwide

community of hundreds of higher education institutions and associated organizations offer hundreds online courses.

The basic criteria that were adopted by the researchers at this stage of the research was to find online language courses that were free of charge and open to anyone and could support massive number of students. Despite the enormous number of courses, the findings have shown that the number of MOOLC initiatives is relatively small. The total number of MOOLCs found was 30 and only 16 of those followed the initial research criteria. Some platforms like Wiziq (www.wiziq.com) were excluded because were not free of charge and other platforms didn't provide evidence that could support a massive number of students (i.e. Labspace (UK) http://labspace.open.ac.uk/, OpenLearn (UK) http://www.open.edu/openlearn/, METU OpenCourseware http://ocw.metu.edu.tr). Furthermore, some providers offered only Open Educational Resourses and not MOOLCs (i.e. CONEXIONS http://cnx.org/ etc.).

3.1.2 Classification of the MOOLCs initiatives according to 2nd stage criteria

In the following stage of the research, the 16 MOOLC platforms have been classified in a table [Fig.1] which provided the following information: a) the name of the MOOC platform provider b) the name of the university or the Entity that organized the language courses c) the number of language courses offered d) the target languages of the courses e) the possibility of any type of accreditation, f) info related to the time of sessions (fixed or not) and finally g) the classification of courses in cMOOCs or xMOOCs.

According to the research findings, almost all the Universities (15/16) have chosen a different MOOC provider for their language courses, only two of them (2/16) offered a variety of language courses and almost all of them (13/16) offered an English course. Moreover, the table shows that only three MOOLCs (3/16) don't provide any type of accreditation to the participants. Finally, it is clearly presented that only three (3/16) of the MOOLCs have the basic characteristics of a connectivist MOOC.

Fig.1 Classification of Platforms and providers of Massive Open Online Language Courses.

MOOC PLATFORMS/ Initiatives	**UNIVERS. / ENTITY**	**N. Free/ paid LNG CRS**	**LANG**	**CERT/ OFFIC. CREDIT/ BADGES**	**FIXED TIME SESSION**	**c/x MOOC**
1.FutureLearn (UK) https://www.futurelearn.com	University of Reading	1	EN	YES/NO/NO	YES	xMOOC
2. edX https://www.edx.org	Berkeley University of California	2	EN	YES/NO/NO	YES	xMOOC
3. Coursera https://www.coursera.org	Duke University	1	EN	YES/NONO	YES	xMOOC
4. OpenLearning www.openlearning.com	University of South Wales (UNSW), Australia	1	EN	NO/ NO/YES	NO	c/x MOOC
5. Udemy.com https://www.udemy.com	Independent instructors	2/2 1/1 1/14 1/1 1/8 1/8 1/4	CH HBR EN JAP SP HUN RUS	YES/NO/NO	NO	xMOOC

6. Miriadax.net www.miriadax.net	University of Salamanca (SP)	2 1	EN SP	YES/YES/YES	YES	xMOOC
7. UNEDCOMA https://unedcoma.es/	UNED (SP) National University of Distance Education	2 1	EN GER	NO/YES/NO	YES	xMOOC
8 Open2Study www.open.edu.au	South China University of Technology	1	CH	YES/NO/YES	YES	xMOOC
9. Canvas.net (USA) https://www.canvas.net	University of Utah	1	SP	NO/NO/YES	YES	xMOOC
10. COURSEsites by Blackboard https://www.coursesites.com/	Montgomery College Rochester Institute of Technology	1 1	EN SP	YES/NO/YES	YES	xMOOC
11. SpanishMOOC http://spanishmooc.com/	Instreamia	3	SP	NO/NO/NO	YES&NO	cMOOC
12. Language-exchanges.org http://www.language-exchanges.org/node/106803	MiXXER	1 1	SP EN	NO/NO/NO	NO	cMOOC
13. Open Learning Initiative (OLI) http://oli.cmu.edu/courses/free-open/speech-course- details/	Carnegie Mellon University	1 1 1	EN FR ARB	NO/YES/NO	NO	xMOOC
14.Saylor.org http://www.saylor.org/	Saylor.org	3	EN	YES/YES/NO	NO	xMOOC
15. Alison http://alison.com/	British Council & other Lang Institutions	10 3 1 1 1 1	EN FR GE ARB SWD IRH	YES/NO/NO	NO	xMOOC
16. Education Portal http://education-portal.com/	Education Portal	1 1	SP EN	NO/YES/NO	NO	xMOOC

3.2 Evaluation of MOOC learning environments for Language Education

In the next stage of this research the researchers evaluated the 16 MOOC platforms that provided language courses based on the MOILLE framework that has been analysed earlier in the second section of this paper (2.2.2.). The researchers collected their data not only using all the information provided by the language course's platform (services, FAQ etc.) but also by exploring the language course's online learning environment (with enrollment in many language courses) In order to test successfully the 16 MOOC platforms. A table [Fig.2] has been created in order to present clearly the results of this evaluation. The presentation of the results will be done in the following section.

Fig.2 Evaluation of a Massive Open Online Interactive Language Learning Environment (MOOILLE).

	DIMENSIONS (Core course elements of MOOILLE)	HIGH	MEDIUM	LOW	NONE
1	**CONTENT**				
	Authentic educational resources	**1,2,3,611,15**	**4,5,7,8,9,10, 13,14,16**		
	Use of multimedia / tech	**1,2,3,45,6,7, 8,13,11,15**	**9,10**	**14,16**	
	Variety of activities that promote all basic language skills and support cultural awareness	**3,11,15**	**1,2,4,5,6,7,8, 9,10,13,16**	**14**	
2	**PEDAGOGY**				
	Communication (peer-peer, student-teacher, open class community)	**1,2,3,8,12**	**4,5,6,7,10,1 1,13**	**9,14, 15,16**	
	Collaboration (CL) (group projects, forum etc.)/ Collective intelligence	**11**	**1,2,3,4,5,6, 8,9,13**	**7,10,**	**14,15, 16**
	Autonomy (Autonomous/ Self Paced /SL Learning/Reflection)	**1,2,3,45,6,8,9, 10,13,11,12 , 14,15, 16**	**7**		
	Engagement-motivation	**2,3,8,11,13**	**1,4,5,6,7,9, 10,12,15,16**	**14**	
	Playful/Game based learning		**2**	**1,3,45,6, 8,11,12**	**7.9,10,13, 14,15,16**
	Number of instructors	**2**		**1,3,45,6,7 8,9,110,11 12,13,16**	**15**
3	**ASSESSMENT**				
	Ongoing Assessment/ Feedback (peer-peer, student-teacher, open, automated)	**1,3,6,13,11**	**2,4,5,7,8,9, 10,12,14,16**	**15**	
	Final Assessment	**1,2,3,68,14, 16**	**5,7,11**	**4,9,10,15**	**12**
	Evidence-Based improvement (data mining, Analytics)	**2,4,11,13**	**1,3,5,6,8,9, 10,15**	**14,16**	
	Feedback (comments, reviews)	**4,3,6,811,13**	**1,2,5,7,9, 10,12**	**14,15,16**	
4	**COMMUNITY**				
	Social Community building as Massive & Open (Social Media – third part tools integration & other tech tools)	**2,4,6,813**	**1,3,5,7,12, 11**	**9,10**	**14,15,16**
5	**TECHNICAL INFRASTRUCTURE**				
	Technical infrastructure (participants number, platform's performance, security, usability)	**1,2,3,4,5,6,7, 8,9,10,11,13**	**14,12,15, 16**		
6	**FINANCIAL ISSUES**				
	Profit: charges for Course or Certification/ Accreditation		**5,11**	**1,2,36,9, 13,16**	**4,7,8,10, 14,12,15**

4 RESEARCH RESULTS

One research question that deserves to be answered in the end of this research is the following: “Are there many MOOLC initiatives that could provide a promising Massive Open Interactive Language Learning Environment (MOILLE)”?. This question will be answered based on the analysis of the results that show high evidence MOILLE characteristics in a MOOLC initiative. The analysis of the results will be made separately for each dimension.

1. CONTENT: According to the findings of this research only 6/16 of the MOOLC initiatives offer authentic educational resources in a high level, 11/16 use a multimedia tools and 3/16 offer a variety of activities that promote the basic language skills and support cultural awareness.
2. PEDAGOGY: As far as the adopted pedagogy is concerned, only 5/16 of the MOOLC initiatives support the various types of communication (peer-peer, student-teacher, open class community) in a high level. Additionally, only 1/16 of the MOOLC initiatives promote collaboration (group projects, forums etc.) or collective intelligence in a high degree. Most of them (15/16) support very much the autonomous, self-paced and self-regulated learning as well as the learner’s reflection. Finally, 6/16 of the MOOLC initiatives support learners’ engagement and motivation, none of them offers game based activities of high degree and only 2/16 of them provide many instructors for a course.
3. ASSESSMENT: Regarding the results of the ongoing assessment only 5/16 of the MOOLC initiatives provide various types of assessment (peer-peer, student-teacher, open, automated) and only 7/16 an official final assessment; Moreover, only 4/16 of the MOOLC initiatives provide evidence of high level that show improvement of learners’ performance (data mining, analytics) and only 6/16 of the MOOLC initiatives give the possibility to participants to provide feedback of various types (comments, reviews).
4. COMMUNITY: Only 5/16 of the MOOLC initiatives offer a big variety of social media tools or other technologies in order to build a Social Language Learning Community.
5. TECHNICAL INFRASTRUCTURE: As far as the technical infrastructure is concerned, 12/16 of the MOOLC initiatives can accept a massive number of participants, offer usability, good technical performance and high security.
6. FINANCIAL ISSUES: Finally, none of the tested MOOLC initiatives don't require any high charges and usually a small amount of money is charged in case someone asks for a certification or accreditation.

5 DISCUSSION

“Are there many MOOLC initiatives that could provide a promising Massive Open Interactive Language Learning Environment (MOILLE)”? The answer to this question is no. There are some good examples like SpanishMOOC (http://spanishmooc.com/) and Mixxer MOOC (http://www.language-exchanges.org/node/106803) but generally most of the MOOLCs initiatives don't offer a highly interactive environment where the learners are interconnected to a language learning community and build collectively their language skills. Even if we still discuss about “massive” courses learners are still studying a language in a traditional way following courses that are based on a cognitive behavioral pedagogical model and this research finding confirms a previous theoretical resource discussed earlier [12]. The positive aspect is that many courses are still free, have generally good infrastructure and many offer certification. One of the issues that still remain open for discussion and improvement is the pedagogical aspect of MOOLCs. Designers and educators should focus on the creation of more interactive and more connectivist MOOLCs. Time cost for educators is also an important issue that needs to resolved in future.

So far, the most disconcerting issue for many educators is the dropout rate of a running course [18]. as Cormiere & Siemens comment. Probably it is the degree of motivation and self-direction that seems to change during the course. Even though the issues are many, the challenges for the creation of highly interactive and efficient MOOLCs are even more. Inspiring language teachers, instructional designers and developers need to collaborate all together in order to make the best choices for the creation of promising MOOLCs.

6 CONCLUSIONS – FUTURE RESEARCH

Although these courses represent a huge step in open online language education, many issues and questions remain open and need to be addressed in future research. In this paper, the authors tried to show that there is a growing interest for MOOLCs and proposed an evaluation framework that could help instructional designers to create successful Massive Open Interactive Language Learning Environments.

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