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OPEN ONLINE COURSES AND THE DEMOCRATIZATION OF KNOWLEDGE FOR VULNERABLE GROUPS

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Abstract

This article builds on a body of literature (e.g., Daniel, 2012; Portmess, 2013; O'Mahony & Salmon, 2014) where the potential of MOOCs for the democratization of knowledge has been claimed. The authors highlight four key characteristics that have been seen to be essential in the design, development and deployment of open online courses for vulnerable groups, in order to maximise student participation, interaction, and learning in such educational scenarios. These characteristics are instructional design for social inclusion, three degrees of accessibility, inclusive language, and Activeness. They will be analysed from a practical and experiential perspective in the context of a Language MOOC (massive open online course) developed by the authors' research group, although they are relevant for any other type of open online course. They will be argued to facilitate any future access to information in general, once the course has finished, and as such, represent a catalyst for the democratization of knowledge.

Introduction

The promise of online courses as a way to offer education to people left behind from formal institutional studies has been highlighted in the literature for almost as long as such courses have existed (Fisher, 2018). With the increase of forced migration and displacement, social exclusion, and now the pandemic, more and more people can be seen to belong to so called *vulnerable groups*, requiring such education. Daniel (2012) established a logical link between open education and the idea of the "democratization of knowledge", that is, the possibility to widen and diversify access to higher education that can lead to useful certification and facilitate personal choice and planning. Similar arguments have been presented by other authors such as Portmess (2013) and O'Mahony and Salmon (2014).

While many initiatives have been undertaken to promote open online courses for vulnerable groups, these efforts have not led to a wider uptake of these courses by the student population who could most benefit from them (Read, Sedano, & Barcena, 2018). Given their diversity, evident from their personal circumstances and individual learning needs, care is required when referring to them collectively as members of any single vulnerable group. While this is inevitably true, experience shows that specifically scaffolded open educational solutions can be targeted at such groups, since even if not all of the members benefit from all aspects of the scaffolding, most will benefit from some of them.

In this article the authors highlight four key characteristics that have been seen to be essential in the design, development and deployment of open online courses for vulnerable groups, in order to maximise student participation, interaction, and learning in such educational scenarios. These characteristics are instructional design for social inclusion, three degrees of accessibility, inclusive language, and Activeness. They will be analysed from a practical and experiential perspective in the context of a Language MOOC (massive open online course; henceforth, LMOOC) developed by the authors' research group, although they are relevant for any other type of open online course. They will be argued to facilitate any future access to information in general, once the course has finished, and as such, represent a catalyst for the democratization of knowledge.

Instructional design for social inclusion

When considering the pedagogic structure of online language learning scenarios prepared for vulnerable groups, what needs to be understood, is that regardless of personal differences and difficulties, the amount of exposure to the object of study and the availability of authentic materials, in a conveniently integrated study environment, will always potentiate learning. More importantly, like any other form of learning, language learning should take place under conditions that are as close as possible to real life usage. The reality is that a considerable part of daily communication these days takes place through a technological device (be it a desktop computer or a smartphone). Using this device for learning, therefore, represents a continuation of behaviour and reflects the way that newly learned language competences would be used ordinarily.

Where the instructional design process differs from that of generic LMOOCs, is that the language needs of vulnerable groups cannot generally be met by standard educational resources. Such students are not typically interested in learning, for example, how to describe people in detail in the new language (different types of hair, complexions, etc.) or undertaking small talk. They have well defined purposes for wanting to learn the language: e.g., survival in a new community (often culturally distant, sometimes reluctant to

welcome them), social integration, access to the labour market or to formal education, defending their rights. Furthermore, experience has shown that students from such groups have restrictions and reservations about how and where they are prepared to study, that must be taken into account when designing any course for them.

The work undertaken by the authors' research group builds on previous explorations of the adequacy of general MOOCs for inclusion (e.g., de Waard et al., 2014; Read, Sedano, & Barcena, 2018). Instructional design features have been proposed for inclusive LMOOCs and the inherent learner-centred learning approach at the core of the field of Languages for Specific Purposes has been closely followed. The LMOOC being used here as the object of study was designed and developed for displaced people (as an example of members of a vulnerable group) and came to be called Open Doors (part 1 and 2). It is still available at UNED's MOOC platform.

The instructional design process started with a needs analysis. The data was collected from questionnaires, interviews and face-to-face work sessions with teachers, refugees and migrants from NGOs and support associations. Although one of the first things identified was that displaced people were not homogeneous as a group, this needs analysis proved to be useful in finding out which languages they had in common, what digital skills and experience they had (the technological devices they used, what they used them for, and whether they had an Internet connection), and what level of support they would require in an online course.

The analysis of the data collected confirmed in the first place that, despite their heterogeneous profile, the main need of displaced people is to learn the language of their host country for social inclusion and employment. The languages this student population had in common were English, French and Arabic. They mostly had mobile phones as their only technological device, did not always have stable access to Internet, and had a low level of digital literacy. They used the phones for social contact and had no experience of computer assisted learning. As for the level of support needed, they belonged to old educational traditions and showed signs of emotional trauma. Therefore, several workshops were run to explain what LMOOCs were and to jointly identify what their most urgent learning need was: Spanish for beginners (from A1 to A2).

The design, structure and main contents of the course were developed in a workshop based on Design Thinking, a modality first proposed in the literature by Dorst (2011). This is an iterative hands-on method in which the participants attempt to solve a given problem collaboratively whose solution might not be immediately obvious upon first inspection. During this brainstorming session, the question: "What do you need Spanish for?" was raised. A group of refugees took turns to fill up a board with post-its which contained ideas

expressed telegraphically. They could be general or specific. The monitor of the session then coordinated the gathering of the post-its in conceptual clouds and this is how everyone present came up with a structure made up of eight situational modules for two MOOCs and some of the main contents therein.

Each LMOOC consisted of four independent situation-specific modules and was designed to be undertaken over a period of six weeks. In each course, the first week was designed for students to introduce themselves and become familiar with the MOOC platform. Four weeks were then dedicated to the learning content, and the last week, to complete any unfinished activities. Each LMOOC required an average of 25 study hours (and was accredited with 1 ECTS upon successful completion).

The materials subsequently developed were presented to a group of refugee students who collaborated with the project and we worked on a number of versions as usual. That is how dialogues were created, which served as the basis for the course activities. Once finished, the teachers and the refugees recorded all the dialogues in UNED's TV studio. In retrospect, this was one the strongest points of the project since the texts that had been produced aligned with the real communicative needs and concerns of the future course participants.

Any democratization of knowledge requires the target community to possess the relevant language skills. Therefore, any open online course that has been developed using a relevant instructional design, in this case for those students who are typically left behind standard education, can be seen as an important step toward this goal.

The three degrees of accessibility

Accessibility is typically used in the academic literature, with regard to online information, to refer to the presentation of information so that everyone, including people with disabilities, can access it. In this work the concept is extended and sub-divided into three types, namely *technological accessibility* (that follows the standard use), *pedagogic accessibility* and *linguistic accessibility*.

Firstly, technological accessibility was achieved by the preparation of the course content and activities for mobile deployment, as a lower common denominator, since the needs analysis had identified that fact that most of the potential students owned a device of this type and intended to use it to follow the course. Furthermore, most materials (including vocabulary, grammar tables, and activities) were also downloadable for those who did not have a permanent Internet connection, so that they could work offline.

Secondly, pedagogic accessibility, is used here to refer to the socio-cultural specifics present in pedagogic approaches that might prove to be a barrier for students from other cultures.

In Western countries as well as belonging to a social culture we also belong to a technological culture and, of course, a learning culture. People share much more in terms on how we process and deliver information than they are probably aware of. This implicit relation must be considered when offering a course to non-Europeans (the principal part of the Open Doors student population). This is why ten very brief guides with supporting videos were written to scaffold the courses (about how to enrol in the course, how to undertake a test, how to watch a video, etc.).

Thirdly and finally, linguistic accessibility, refers to difficulties present in the target language that need to be scaffolded for learners to help them acquire sufficient skills and knowledge to be able to progress in an unhindered manner. Considerable effort was put into preparing bimodal information and materials. Most contents were both textual and audio-visual. Videos had subtitles in Spanish, and transcripts in English, French, and Arabic. Texts in Spanish had translations to support beginners and false beginners. It should be noted that subtitles and translations were undertaken by volunteer students and then revised by the teachers.

Apart from course design and implementation, delivery is key in the success of any course. In order to reinforce the inclusion aspect of the course, facilitation was undertaken by teachers from the support groups plus a few advanced students. Specific instructions on forum management before the courses started were provided. Furthermore, facilitators were requested to go through the whole course as students to become familiar with it.

Given that facilitators were mostly Spanish nationals, the contact that the refugees and migrants participating in the courses had with them in the forums represents a form of implicit social inclusion, since they were actually mixing with people from the country in which they wanted to integrate, which enabled them, to some degree, to experience how the nationals behave in interpersonal communication.

Returning to the democratization of knowledge, the authors argue that scaffolding learning in terms of the three types of accessibility highlighted here, lays the foundation for a skill set that vulnerable students can use to progress in the future, processing facts and information as needed.

Inclusive language

A crucial role that language plays in any human interaction, particularly in online environments where there are no visual clues, is that of integration. Language is key to the creation of emotional tone and in defining a social atmosphere. As Foolen (2015) argued, there is a clear and direct relation between emotion and language. Its effect in learning has been studied since Brown (1991) noted how a combination of empathy, extroversion and

assertion may facilitate the merging of cognition and affect, and hence enhance the success of the learning process.

As argued by Barcena, Read, and Sedano (2020), Appraisal Theory offers an appropriate framework that can be extended for modelling inclusive language for use in online courses. These authors identified a set of thirty-three linguistic resources for use in forums and course materials with a potential impact both on group inclusion and positive individual discrimination, based on this Theory. The resources have been grouped around a complex axis: elements for favouring social inclusion or avoiding exclusion, elements for positive or negative individual discrimination, and elements related to Attitude (positive and negative assessments, defined in terms of affect, judgement and appreciation), Engagement (the linguistic phenomena by which authors construe their point of view and the resources used to adopt stances towards other authors' perspectives) and Graduation (force and semantic focus, by which speakers raise or lower the interpersonal impact, intensity or volume of the evaluation), as identified in Appraisal Theory.

There were two type of linguistic elements promoted during the courses, those aimed at promoting a feeling of inclusion / avoiding exclusion, and those aimed at avoiding prejudices, stereotypes and discrimination. Each was structured at different linguistic levels. The former contemplated the phonological level (e.g., marking the use of prosodic patterns, avoiding dialectic varieties), the semantic-discourse level (e.g., use of empathic language, appropriateness in the level of formality), grammatical level (e.g., avoid the use of gender-marked words, use of non-assertive language), and the pragmatic level (e.g., empowering language to the interlocutors and their performance, awareness of culture-driven language). The latter contemplated the semantic level (e.g., no stereotypes were used of origin or gender in professions, no distinctions were made of beliefs, political opinion, social and economic background, race and ethnicity, age, disability, gender, sexual preferences), grammatical level (e.g., by compensation), discourse level (e.g., avoiding the use of patronising and sexist language, no excessive use of emotional language).

The inclusive language not only played a pedagogic role but also supported the students emotionally. This was shown when they talked negatively about aspects of their home countries and other potentially delicate subjects (such as war and terrorism), which received no follow on either from their peers, facilitators or themselves in subsequent messages. Although difficult to prove categorically, there was considerable evidence that facilitators' inclusive language use had an impact on the participants' discourse because more features like these were observed as the course went by.

Once again, when considering the democratization of knowledge, the authors argue that most information is online, so having experienced inclusive language in online courses potentiates students' elicitation strategies when interacting with others in the future. As such they are better able to access knowledge and be able to use it in a more focussed and productive manner.

Activeness

Regardless of how an online course is structured, made accessible (in the three ways highlighted previously), and supported by inclusive language, there is still a missing element for student engagement, namely their adoption of "Activeness" (Read & Barcena, 2021). The authors there define it as "a dynamic psychological and cognitive state where vulnerable students start to exercise control of their learning and progress based on their needs and desired outcomes".

Activeness is a driving force or state for engaged (language) learning and empowerment in the virtual community. It is defined by Read and Barcena (2021) in terms of investment (as a step beyond motivation in capturing the complex relationship of learners to their desire to use what is being learnt), integration (the reciprocal relation with the learning community. This is a form of *integration*, not so much with the educational goals or contexts, but with the people who are actually participating in the learning process,) and performance (something that converts intention into effective action). In this state, vulnerable learners start to exercise control of existence and progress based on their needs and desired outcomes. They draw upon metacognitive processes such as self-regulation and self-efficacy to overtake the inertia of inactivity (often an enforced norm for refugees) and engage with their language learning activities.

The results of potentiating Activeness in the LMOOC were evident. Even though no quantitative analysis was undertaken of the correlation between the percentages of the activities undertaken, forum participation and correct performance in evaluation, and the evidential features of Activeness. However, the facilitators reported that the most salient students (that is, those not necessarily with a high starting level of Spanish), showed evidence of activeness, in terms of the way they followed the proposed schedule, participated in the forums, finished the majority of the course activities at the end of the first five weeks (without needing the final catch-up week), passed the final test and were able to receive the final certification.

Furthermore, other quantitative factors also suggested a positive effect of Activeness on student performance. Firstly, the high degree of interaction in the forum and the number of messages that went beyond single question-answer interactions. Secondly, the number of students who finished the course. MOOCs are known for having high levels of

abandonment; typically, figures are around 90% of enrolled students. In this course, more than 700 students finished the first LMOOC, representing a completion rate of over 30%, well above average. Thirdly, the number of messages in the forums, which dropped slightly but did not fall off massively, as is usually the case in MOOCs. While there may be other reasons for these numbers, the students consistently demonstrated throughout the course, and subsequently in the post-questionnaire, their high level of satisfaction overall. As well as the quality of the content and structure of the course, this was arguably thanks to the inclusive language used for communication. Finally, even though it is difficult to prove without a proper evaluation process, there were signs that there was significant progress on the part of those students that accomplished the courses and contributed most actively to the course activities and the forums.

Activeness is quite possibly one of the most important characteristics of student behaviour in the democratization of knowledge. It underpins the psychological tools that they must adopt and apply to overcome the inertia of inactivity and the proactivity required to overcome barriers to accessing and processing information in an effective way.

Discussion and conclusion

This article started by introducing four characteristics (instructional design for social inclusion, degrees of accessibility, inclusive language, and Activeness) the authors believe are key to potentiating open online courses and making them more effective for vulnerable groups as a catalyst for democratizing knowledge.

Participating in a strategically designed and scaffolded LMOOC that promotes both inclusion and activeness serves the triple purpose of enabling more effective target language learning and empowering vulnerable learners to reach their developmental potential to become engaged members of the language learning community, arguably as an important step towards doing the same in the real world. While the example presented in this article is that of a language learning course the characteristics can be included in any open online course, whether intended to be massively followed by students, or not.

Democratizing knowledge via online learning was in the mind of many early MOOC (and before that, other types of open online courses) developers. However, up until now, this has not been the case. Socially inclusive instructional design, degrees of accessibility, inclusive language, and Activeness are argued here to effectively open up LMOOCs for wider, disadvantaged and vulnerable social groups, like refugees and migrants. They also lay the foundation for online learning and the development of a set of skills, which not only enhances target language knowledge and communication, but also increases social inclusion and provide opportunities for a richer and better society.

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