# MOOCs - what's cultural inclusion got to do with it?

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This paper outlines a preliminary scoping exercise that surveyed how good practice principles around cultural inclusion are currently incorporated into online learning, and more specifically, into Massive Open Online Courses, or MOOCs. Combining good practices principles for learning and teaching across cultures and elements of Universal Instructional Design, this small-scale survey of courses provided on four MOOC platforms - Coursera, Udacity, Open2Study and edX - looks at determining what can be considered good culturally inclusive practice. The aim of the project is to establish minimum standards and examples of good practice that can form the benchmarks for all online units.

Keywords: cultural inclusion, MOOCs, online teaching.

## Introduction

How does cultural inclusion work in online teaching? This question, asked in a 2013 workshop on "Teaching for cultural inclusion", is the starting point for this study, which explores: a) what is good practice for teaching for cultural inclusion online? and b) how is this enacted in specific online learning environments? The rapid emergence of Massive Open Online Courses (MOOCs) and the intense discussion around their present and future impact on higher education has provided additional impetus. MOOCs are fully online learning and teaching spaces involving thousands of learners from around the world (Daniel, 2012), and thus present an ideal medium for an enquiry into how good practice for teaching for cultural inclusion might be applied online. This paper presents results from a preliminary scoping survey that surveyed how cultural inclusion, as expressed through the good practice principles of Universal Instructional Design (UiD), is incorporated into four MOOC learning environments, with the long-term aim of providing recommendations for a culturally inclusive MOOC using UiD.

The point of difference in our survey is the use of a definition of culture and cultural inclusion that is very broad, beyond nationality and ethnicity to also include 'cultural' attributes such as gender, ability, language, age, lifestyle, and other 'sub'-cultural differences (Goold et al. 2007). With regard to online learning and teaching then, such a definition aligns as much with the principles of universally accessible design, as with traditional conceptions of culture and cultural inclusion in learning and teaching (Herskovits,1955; Goodenough,1981). Hence our focus in this paper is on UiD as an alternative approach for developing good practice for teaching for cultural inclusion online. Here we focus on the first three UiD principles - *equitable use*, *flexible use*, and *simple and intuitive use* - as these most closely align with our broad definition of culture and cultural inclusion. In turn, these UiD principles have been translated into criteria for culturally inclusive learning and teaching online. Two units from four MOOC providers were then assessed against these criteria

and the results presented here, with some broad recommendations for future work in this area using this approach.

## Literature review

Developments in technology have provided access to online learning material to a greater number of people. Massive Open Online Courses (MOOCs) have been a central topic of discussion over the past year (Daniel, 2012), specifically with regards to their impact on Higher Education. MOOCs are units aimed at large-scale participation, where participants are dispersed, and access to these courses is open via the web (Daniel, 2012). According to Singh et al. (2005, p. 22) such a "diversity of the new student population requires that institutions carefully develop programmes that will satisfy a broad range of learning requirements". Our argument here is that the issues go beyond catering to diverse learning requirements and should also expand to creating online spaces that cater for culturally diverse learners.

Universal design, defined as "the design of products and environments to be used by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Mace, 1997) arguably supports a culturally diverse cohort. Various researchers have provided examples and applications of the UiD principles (Dukes et al. 2009; McGuire, 2011; Eberle et al., 2006; Frey et al., 2010) in relation to education. Universal Design incorporates nine design principles (Mace, 1997); here, we examine the first three: *equitable use*, *flexible use*, and *simple and intuitive use*. *Equitable Use* follows an "anyone, anytime, anywhere" rule where content is expected to be available and accessible to every course participant, without excluding or stigmatising any individual. *Flexible Use* is aimed at accommodating different learner styles and requirements. *Simple and Intuitive Use* aims at providing a learning environment that does not discourage learning through complex and technically challenging constructs. While the basic UiD principles are the same, the literature varies in terms of specifying what each principle means for actual practice. Table 1 identifies how some educational researchers have interpreted the UiD principles.

**Table 1: Amalgamation and application of UiD principles in an online learning environment**

| Universal Instructional Design | Dukes et al. (2009) | McGuire (2011) | Eberle et al. (2006) | Frey et al. (2010) |
|---|---|---|---|---|
| **Equitable use** | | | | |
| 1) Courses material readily available | X | X | X | |
| 2) Course content in multimodal form | X | | X | |
| 3) Electronic versions of syllabi, rubric, handouts, scripts, etc.available | X | | | |
| 4) Student assignments are submitted and returned electronically | X | | | |
| 5) Privacy is respected | | | X | |
| 6) Students with disabilities are neither segregated not stigmatised. | | | X | |
| 7) Statement for accommodating students with disabilities is provided | | | X | |
| 8) Information for self-help available | | | X | |
| 9) Idioms, local expressions, pop culture, metaphorical language avoided or explained | | | X | |
| 10) Culturally specific symbols avoided or explained | | | X | |
| 11) Too much text is avoided, graphics and visualisation used where possible | | | X | |
| 12) Stereotyping gender roles, religious groups, cultures, etc. avoided | | | X | |
| 13) Horizontal text used only | | | | X |
| **Flexible use** | | | | |
| 14) Various opportunities for participation and engagement | X | | | |
| 15) Students can demonstrate knowledge through multiple means | | | X | |
| 16) Material is presented in different formats, i.e. html and pdf. | | | X | |
| 17) No time limits / offline access | | | | X |
| **Simple and Intuitive use** | | | | |
| 18) Students should be able to operate every course function using a similar process | X | | | |
| 19) Grading rubric that clearly lays out expectations for assessment | | X | | |
| 20) Practice of sample items are provided | | | | X |

## Method and Results

Each researcher compared two courses across four MOOC providers (*Coursera*, *Open2Study*, *edX* and *Udacity)*, in terms of how each course incorporated cultural inclusion, using the UiD principles as the framework. Following on from previous studies the researchers 'translated' the principles into specific criteria that might indicate a cultural inclusive online learning space (Table 2). To eliminate bias, the criteria for good practice were discussed and established by the researchers beforehand. Each researcher then surveyed two MOOC providers according to these criteria, and then reviewed all results as a group.

## Discussion

Overall, the eight MOOC units surveyed measured up well against the UiD Principles in facilitating and encouraging cultural inclusion in their specific learning spaces. While content in all eight courses was mainly

**Table 2: UiD principles with cultural inclusive criteria as evidenced in selected MOOC courses**

| Universal Instructional Design (examples) | edX | edX | COU | COU | O2S | O2S | UDA | UDA |
|---|---|---|---|---|---|---|---|---|
| **Equitable use** | | | | | | | | |
| 1) Courses material readily available | X | X | X | X | X | X | X | X |
| 2) Course content in multimodal form | X | X | X | X | | | (X) | (X) |
| 3) Electronic versions of syllabi, rubric, handouts, scripts, etc. available | X | X | X | X | (X) | (X) | (X) | (X) |
| 4) Student assignments are submitted and returned electronically | X | X | X | X | X | X | X | X |
| 5) Privacy is respected | X | X | X | X | | | | |
| 6) Students with disabilities are neither segregated not stigmatised. | X | X | X | X | | | | |
| 7) Statement for accommodating students with disabilities is provided | | | | | | | | |
| 8) Information for self-help available | X | X | X | X | (X) | (X) | X | X |
| 9) Idioms, local expressions, pop culture, metaphorical language avoided or explained | | | X | X | X | X | X | X |
| 10) Culturally specific symbols avoided or explained | X | X | X | X | X | X | X | X |
| 11) Too much text is avoided, graphics and visualisation used where possible | X | X | X | X | X | X | X | X |
| 12) Stereotyping gender roles, religious groups, cultures, etc. avoided | X | X | (X) | (X) | X | X | X | X |
| 13) Horizontal text used only | X | X | X | X | X | X | X | X |
| **Flexible use** | | | | | | | | |
| 14) Various opportunities for participation and engagement | | | X | X | | X | X | X |
| 15) Students can demonstrate knowledge through multiple means | | | X | X | | | | |
| 16) Material is presented in different formats, i.e. html and pdf. | X | X | X | X | | | (X) | (X) |
| 17) No time limits / offline access | | | (X) | (X) | X | X | X | X |
| **Simple and Intuitive Use** | | | | | | | | |
| 18) Students should be able to operate every course function using a similar process | X | X | X | X | X | X | X | X |
| 19) Grading rubric that clearly lays out expectations for assessment | | | | | | | | |
| 20) Practice of sample items are provided | X | X | X | X | X | X | X | X |
| 21) Specific terms or difficult words are linked to definitions | | | | | | | | |

COU –Coursera, O2S –Open2Study, UDA –Udacity.  X means fulfillment, (X) means partial fulfillment provided through videos, all included the option to read and download transcripts for all lectures. All PDFs and pages that were tested were also found to be accessible.

*Coursera* units did relatively well with regards to structuring and presenting learning material for a culturally diverse student cohort. Units are presented in short 7-15 min videos, which provide download options of the video script, subtitles and MP3 files to enable offline learning.  Videos usually display embedded bullet points or key terms that summarise or highlight the significant parts of the lecture which makes for easier understanding for non-native speakers and learners who are not familiar with the (English language) terminology of the discipline. Assessment takes place via surveys, quizzes, exercises, and discussion forums, written and spoken assignments. The course outline is easy to navigate and it provides alternatives to different learner types. Inclusivity and community are strongly encouraged and well facilitated in various discussion forums. The facilitators respond to students' inquiries and actively participate in online discussions. The unit communication is void of culturally specific terms to include the students around the world.

Learning in the Australian-based *Open2Study* platform rotates around videos. Assessments are not mentioned during the videos, but after each video there is a one-question 'pop quiz'. The system is easy to use, however, having only one option for assessment - multiple choice - is limiting as it does not provide options to show that the objectives of the unit are met. Since this is the only type of assessment there are no rubrics, and learning outcomes are only briefly mentioned in the first video. Aside from the videos, there is very little other learning material, and the videos are not simple to download for offline viewing.

*Udacity* is helpful in providing a summary of the class: what you need to know before taking the class and what you will learn. It also provides the unit's syllabus separate to the videos. Participants from diverse cultural backgrounds may find it useful as it structures the learning content and material and also prepares the learner for what is to come by providing clear expectations. However, once in the videos, some icons are mislabeled and may be misleading: for example, the *wiki* icon does not take you to a wiki but to class notes and other materials. This makes finding key information difficult. Information on assessment is also not available nor are grading rubrics. This may raise questions for students, especially those who are not familiar with cultural norms and/or university requirements. Assessments use multiple choice or short answer format. The wiki content is not searchable, but the discussion forum is, in contrast to Open2Study platform, which does not allow for content searching.  In this platform videos can be downloaded from the wiki page.

The *edX* platform provides a clean and simple interface for its individual courses, based on videos and 'interactive transcripts' where the user clicks on a section of the transcript and the video jumps to that point. This is very useful for fast-tracking and slowing down the progress of video instruction, which may be useful for non-native English speakers.  The courses surveyed generally used simple language, avoided idioms and culturally specific symbols, and all courses included material that was accessible at any time and through a variety of modes. Online learning communities were encouraged through forums and wikis, however, these were course- and discipline –specific.

## Conclusion

This scoping study reviewed eight units in four MOOC platforms against three principles and 21 associated criteria of UiD, to show how this approach might be used to reveal how cultural inclusion is incorporated in online learning and teaching environments. The findings have implications for both research and practice. This paper has indicated clear links between this approach and other more 'traditional' methods for identifying cultural inclusion in online learning and teaching. *Respect and adjustment for diversity*; *providing context-specific information and support*; *the facilitation of meaningful intercultural dialogue and engagement*; *adaptability and flexibility* (OLT, 2013) as good practice principles according to a current national project for teaching and learning across cultures (OLT, 2013) have been shown to be central to UiD. At the same time, there are some issues, including a lack of consensus around what each principle means in practice, as well as some overlap in the UiD principles – for example, the criterion *Various opportunities for participation and engagement* can be included under both *Flexible Use* and *Equitable Use* as it encourages participation of all students and allows participation in different ways. Another limitation is presented by UiD criteria that refer to culturally-specific concepts such as privacy, which differs across cultures. Future work involves further unpacking of the UiD principles and criteria and testing them against other MOOCs and online units from various institutions.

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