

Framework to assess the quality of OCW sites by quality attributes

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1. Abstract

This research proposes a strategy to improve the quality of OCW sites using a framework based on quality attributes. We begin with a systematic literature review of quality in Open Educational Resources and OCW, analyzing attribute-based quality models and methodologies, as a basis for proposing and applying the framework to a sampling of OCW sites to complete our analysis of the findings.

2. Introduction

Open Educational Resources (OER) have evolved since 1994 when the “learning object” (LO) term was introduced by Wayne Hodgins, and immediately accepted by educators and instructional designers, to make it easy to reuse them in a broad range of teaching and learning situations.

OERs may be considered an evolution of LOs that add the "open" feature. This term was adopted for the first time by UNESCO in 2002 in the final report on the Forum on the Impact of Open Courses for Higher Education in Developing Countries, to refer to "providing open educational resources, enabled by information and communication technologies, for reference, use and adaptation by a community of users for non-commercial purposes".¹

In the context of higher education, when MIT brought out its Open Course Ware (OCW) initiative² in 2002, a number of other world-class universities followed, showing that OERs were accepted and evolving. In 2004, the first consortium of OCW initiatives, the Open Course Ware Consortium (OCWC) was created, defining OCW as Open Educational Resources presented in a course format, including planning and materials such as study curricula, calendars, and thematic contents, such as textbooks, lectures, presentations, notes and simulations. (OCWC³).

¹ <http://www.unesco.org/new/es/communication-and-information/access-to-knowledge/open-educational-resources/>

² <http://web.mit.edu>

³ <http://www.ocwconsortium.org/about-ocw/>

Viewing knowledge of the world as a public commodity that can be accessed, shared, used and reused, etc. mediated by technology, is a powerful idea and can have an influential impact on teaching and learning in our society. A decade of developing initiatives offering open courses and Open Educational Resources has gone by, and all related projects have contributed to providing digital educational materials at the university level that are free, open and high-quality (Vladoiu, 2012)

2. Rationale for this topic

Quality is a recurring issue and ongoing pursuit in many settings, in Education and in OER initiatives. The 2012 Paris Declaration recommends for States – insofar as possible and within their competencies – in sub-section e) Support for institutions, training and motivating teachers and other personnel, to produce and exchange **accessible, high-quality educational materials**, taking local needs and students' diversity into account. Promoting guaranteed quality and peer review of open educational resources. Encouraging creation of mechanisms to evaluate and certify the learning outcomes achieved using open educational resources.

2. Problem situation

Despite the popularity and importance of OCW worldwide, users do not have an official framework to assess quality, to assist users in finding the most suitable learning resource to suit their educational needs (Vladoiu, 2011). When a teacher wants to incorporate OCW as part of the learning materials, their value is judged on the basis of the prestige of the entity offering the resource. However, this does not mean that it meets minimum quality requirements. Likewise, when any user has a specific need and wishes to use certain OCW for independent learning, the question arises: which resource is most suitable?

Many quality models for software production are oriented toward management, development, requirements, among others; but there are no models to help assess the quality of the resources in the OCW, which makes it even less credible for users.

So, OER trends and possibilities have increased, as have concerns and dissatisfactions regarding achievement of the basic principle, of promoting universal access to knowledge. (Rodriguez, Cueva, Tovar, 2011)

3. Proposed solution

In view of this dissatisfaction with OCW use versus expectations, the present project proposes a quality attribute framework that OCW sites should consider, to reliably increase the level of access to and use of this type of resources. The following objectives are proposed:

- To analyze the current situation of OCW sites according to quality attributes.
- To define a framework to apply quality attributes in OCW sites.
- To validate the framework for quality attributes by applying it to the UTPL OCW site.

These objectives will require an analysis of OCW quality, as well as quality based on attributes for software artifacts, models and methodologies such as those proposed by (Franch & Carvallo, 2003) and (Olsina, 1999) which will be used as references, since they provide concrete guidelines to assess the characteristics, sub-characteristics and attributes considered in ISO/IEC Standard 9126-1.

Evaluating an OCW site as a software product with quality criteria is useful, not only for the evaluation process itself, but because of the possibility to verify, at the end of a development process, whether most of the associated quality characteristics have been considered.

The framework will be validated with a sampling of OCW sites considered as referents, by applying the criteria established in the model, for example: number of resources, references, among others.

4. Findings

This research will attempt to obtain the following outcomes:

- Systematic literature review regarding OER quality.
- Proposal of a framework of quality attributes for OCW sites as software artifacts.
- Validation of the quality attribute framework for OCW sites by applying it to a sampling of OCW sites.

5. Bibliography

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