Open Educational Resources in E-Learning: Standards and Environment

Ricardo J. Rejas-Muslera, Universidad de Alcalá, Spain
Alvaro J. García-Tejedor, Universidad Francisco de Vitoria, Spain
Olga Peñalba Rodriguez, Universidad Francisco de Vitoria, Spain

ABSTRACT

According to Dr. B.R. Ambedkar’s definition (Deshpande & Mugridge, 1994), Open Educational Resources (OER) are based on the philosophical view of knowledge as a collective, social product. In the last years the relevance of OER has been widely acknowledged and a high magnitude impact is to be expected for OER in the near future (Atkins et al, 2007), (Wiley & Gurrell, 2009), especially as a masterpiece in e-learning development. The aim of this chapter is to present an overview of OER in e-learning, focused on two fundamental aspects: (i) technical issues, mainly standards, and (ii) socio-economic and legal questions. This way the chapter deals with the most relevant issues in this matter: Which is the OER’s role in education, especially for e-learning performance? Which are the technical resources and current standards needed for them? Which socio-economics and legal aspects influence the diffusion and use of OER?

INTRODUCTION

Terry Foote, one of the Wikipedia project’s chairperson emphasizes this: “Imagine a world in which every single person is given free access to the sum of all human knowledge” (Wikimedia, n.d.). More and more educational resources, such as OER, are key contributors to the rise of distance learning and e-learning performance: OER includes both open contents (contents free of charge) for teaching and learning as well as tools and services allowing the development and diffusion of those contents. This expression “open educational resources” was first adopted at the UNESCO’s 2002 Forum on the Impact of Open Courseware for Higher Education in Developing Countries, funded by the William and Flora Hewlett Foundation. Extending this set of concepts, OER reference not only the usual idea of digital resource (like an educative resource in a web format, including text, images or exercises). The OER definition includes other types of materials, such as guidelines on how to teach a determined subject, as well as datasets about the evaluation and performance of determined educative experiences.

OER represent a new approach, when compared to the current vision of the learning and teaching process in which a inherent mercantilism vision exists coming mainly from two sources: the teaching process and the contents
development. In particular, OER enable both e-learning where the students do not need to pay tuition fees and in the third world countries without an advanced educational infrastructure.

The incredible possibilities that the diffusion of the OER could have for people in many countries have been noted by various international organizations, such as:

- The UNESCO, through its International Institute of Educational Planning (IIEP, n.d.) has developed an international community interested in OER with more than 600 member for 94 countries;
- The OCDE, across its Educational Research and Innovation Center (ERIC), which have develop an international study about OER; and
- Many private and public institutions like the World Bank or the Massachusetts Institute of Technology (MIT n.d.), which developed the MIT Open Courseware (MITopencourseware, n.d.), in which a lot of different courses are freely available.

In this way a critical reflection about some important aspects related to OER is quite important for the future of distance learning or e-learning. In this way, this chapter presents on overview of OER and their current usage. Following this introduction, the second section “Background. Socio-Economics And Legal Issues In OER” explores socioeconomic and legal issues as the Background in OER development in terms of distance education or e-learning. The socio-economic perspective of OER is focused in the knowledge economy postulates, and especially refers to two points: OER as a representative of the information economy and, in the other hand, the impact that for the third world countries could be the free access of their citizens to a high quality education and especially for their future economies. This socio-economic perspective of OER can be an important educational factor to change, in general terms, these societies and incorporating them to the set of developed countries (Vijay-Kumar, 2009). The section on the legal perspective tackles which legal aspects influence the diffusion and use of OER, especially the Creative Commons licenses as the main legal means for it. The third section analyzes the key factors for the success of the OER initiative from a technical point of view that are mainly accessibility features and standard compliance. Finally in “Conclusions” the more relevant points of the chapter are extracted.

BACKGROUND: SOCIO-ECONOMICS AND LEGAL ISSUES IN OER

The OER movement has his origin in the Open Source Software subjacent philosophy, and is supported in the communications advantages that offer the Information and Communication Technologies (ICTs) and specially the World Wide Web, that way and according with the Foundation Hewlett in the initiative Open Educational Resources: “The World Wide Web presents an extraordinary opportunity for people and institutions everywhere to create, share, and use valuable educational materials” (The William and Flora Hewlett Foundation, n.d.). In this new environment conformed by the ICTs OER and e-learning form a binomial with important socio-economic implications.

There are many definitions of OER. Hylén (Hylén, 2005) defines OER initiatives as a set of items: open courseware and content, open software tools, open material for e-learning capacity building of faculty staff, repositories of learning objects and free educational courses.” In Wikipedia appear the most spread definition: OER are “resources offered freely and openly for anyone to use and under some licenses to re-mix, improve and redistribute”, and included: Learning content (full courses, course materials, content modules, learning objects, collections, and journals), Tools, and Implementation resources in order to provide a legal framework (Wikipedia, 2009). In any case the subjacent philosophy in OER is not new, in the educational framework the teach-
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