Understanding (O)ER

Whilst a new OER definition has recently published by the UNESCO (2019), the previous UNESCO definition of OER has received broad agreement across the countries under investigation, which was the available definition at the moment of this study:

> *Open Education Resources (OER) are teaching, learning and research materials in any medium -digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no limited restrictions (UNESCO, 2012, p. 1)*

Other definitions that are highlighted are the one from the William and Flora Hewlett Foundation (Canada), which is the same that the one from the UNESCO (2012; 2018), and the definition from the OER Foundation (Australia), which follows:

> *A definition of OER ideally needs to incorporate three interrelated dimensions:*
>
> 1. *Educational values: OER should be free;*
> 2. *Pedagogical utility: OER should embed the permissions of the 4Rs (reuse, revise, remix and redistribute); and*
> 3. *Technology enablers: Technology and media choices should not restrict the permissions of the 4R framework. (OER Foundation, 2014)*

Since in the project we are not only referring to OER but also to educational materials that may not be open, we include here another suitable definition, provided by Spanish authors, that covers the purpose of describing them:

> *Resources used in the teaching-learning process of the courses taught by teachers or the collection of resources that a teacher or a student uses to pursue a course: a lesson plan, a calendar, the teaching guide, a proposal of activities, tutorials... (Fernández-Pampillón, Dominguez, & de Armas, 2013, p. 14)*

According to the understanding of education in each country as a public or private good, which is very much reflected in Figure 1, conceptions of (O)ER differ. For instance, in the US education is considered a private good where students bear most of the costs of HE (Saunders, 2010), and therefore, (O)ER are usually not (completely) free; whereas in Germany education is a fundamental value and considered a public good (Kehm, 2017), and (O)ER are usually mostly free. On another level, (O)ER can be considered as part of an educational system's ideology, as noted in South Africa (Apple, 2010; Arinto, Hodgkinson-Williams, King, Cartmill & Willmers, 2017; Bernstein, 2015).

Open Education and OER are currently "hot topics" in Germany, which can be seen from the number of initiatives and projects under that umbrella. However, does reality follow rhetoric? This is a question that could be applied to the other countries, as well.

Another aspect related to (O)ER is that, in some countries, they are more popular in K-12 than in HE, where OER have special consideration even in the digital strategies of the countries or national (or even province [1]) repositories. In Japan only the Open University of Japan uses OER, they are not commonly used in traditional HEI.

Other cases follow: Procomún is an OER national repository in Spain for K-12 and teachers of that level can join professional development MOOCs developed and provided by public entities dependent on the Spanish Ministry of Education. The National Digital Learning Resources Network is a resource collection, delivery of infrastructure and establishment of metadata standards for Australian Schools, and Scootle is a national repository of over 20,000 learning and teaching resources for K-12 Australian teachers. In Turkey, the Educational Informatics Network (EBA) was created to offer suitable, reliable and right content. In the US, many initiatives for K-12 have been developed, mostly not along the lines of OER (Open Textbook in California as an exception, although no longer exists), but rather (O)ER, regarding the 4Rs permissions; for instance, Curriki or Khan Academy. In Germany, Edutags is the referatory that provides metadata to (O)ER in repositories.

[1] In Germany the provinces are called states, but for purposes of clarity and to avoid confusion with state as nation, we will use provinces also in all cases.