

From Open Education to Wikiliteracy: reframing key concepts in the light of the digital capital

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Abstract

It is undeniable the role that the digital dimension plays today in society. Thus, in this text, it is our purpose to revisit key concepts that set that digital dimension, namely in education. To this end, we call upon the theoretical foundations of the work we have been developing within the WEIWER® International Academic Network, dedicated to study e.g. the Wikimedia ecosystem. Moreover, we call upon our design, implementation, and evaluation of the curricular and pedagogical integration of Wikipedia, which has driven us towards new understandings of our different frameworks, including those on the digital dimension. We specifically focus on Open Education, Open Pedagogy, Open Teaching and Open Learning, bringing to light an updated comprehension of the Wikipedagogy. Then, we also focus on the digital capital, in contrast to the digital divide, bringing to light an updated comprehension of the Wikiliteracy. In the end, by reframing those key concepts in the light of the digital capital, particularly inspired by our work, it has led us to contribute to open educational practices. In a word, our path from open education to wikiliteracy has shown us possible ways to contribute to the learners' developing of a broad set of literacies, including digital literacy, which ultimately promotes meaningful learning impacting on learners.

Keywords: Open pedagogy, open teaching, open learning, WEIWER®, wikipedagogy.

Introduction

In the literature we identify the curricular and/or pedagogical integration of the Wikimedia Foundation projects, including Wikipedia, as promoters of a broad set of literacies (Ball, 2019; Cardoso & Pestana, 2023b; Cummings, 2009; Lockett, 2020; Park & Bridges, 2022; Pestana, 2018). It is important to note that the Wikimedia ecosystem is supported by a framework associated to the openness movement, which can take on different dimensions: technical, legal, social, and financial (Pestana, 2018; Tuomi, 2006, 2013). Although our work is limited to the curricular and pedagogical component, therefore, focused on the social dimension, it intertwines with the remaining dimensions of the openness phenomenon. In fact, because we work with students at all levels of education, for example, legal issues are considered, namely by using Creative Commons licenses. The financial dimension is also at stake, since both the materials used for the work and the platform in which it takes place (MediaWiki) are free of charge, i.e., without the need for any payment.

To those dimensions there is the need to add the digital dimension, nowadays a key asset in society. According to Pinto, Cardoso & Pestana (2019, p. 26), “the triad ‘Digital skills - Qualification – Employability’ must be a constant throughout life, as technological developments continue to transform our daily lives. But it is also fundamental for building a fairer, more inclusive and sustainable society”, thus emphasizing the role it plays in each individual’s Digital Capital. Thus, in this text, it is our purpose to revisit key concepts that set that digital dimension, namely in education. Moreover, we aim at reframing key concepts in the light of the digital capital, namely from Open Education to Wikiliteracy.

Open Education and Wikiliteracy: facets of multidimensional concepts

Open Education presents “an increasing effect on the effectiveness of education and training processes at every education level on an economic and social basis (Demirbilek & Keser, 2023, p. 145). According to Pestana (2018) and Zawacki-Richter et al. (2020), it is a complex and comprehensive phenomenon, often associated with current trends, not always perceived from a multifaceted perspective, as evidenced by the following definition, inspired by Conole & Brown (2019), Cronin & MacLaren (2018) and Cardoso & Pestana (2023a): Open Education integrates individual and/or institutional resources, tools and practices aiming at promoting access, efficiency, success and equity in education around the world. Therefore, and considering two significant concepts, resources and practices, we propose to take a look at both in some detail, which can be supported by their importance in the Wikimedia ecosystem and specifically in the curricular and pedagogical integration of Wikipedia.

Currently, the Open Educational Resources (OER) are understood as “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 allows no-cost access, use, adaptation and redistribution by others with no or limited restrictions” (UNESCO, 2012, p. 1). As for the Open Educational Practices (OEP), these are understood as “collaborative practices that include the creation, use, and reuse of OER, as well as pedagogical practices employing participatory technologies and social networks for interaction, peer-learning, knowledge creation, and empowerment of learners” (Cronin, 2017, p. 4). OER and OEP are paramount to Open Education, namely to Open Pedagogy, Open Teaching and Open Learning, as we discuss in the next paragraphs.

DeRosa (2018), in her book chapter, looks back at the concept of Open Pedagogy (OP) by introducing the work of Morgan (1979), who associates OP with three foundational values: autonomy and interdependence; freedom and responsibility; democracy and participation. Although OP can take on other aspects, it is also associated with numerous teaching/learning theories, including the integration of OER, and therefore of OEP, which is particularly relevant. Schultz & Azadbakht (2023) refer to Wiley (2013), who also shares that understanding, considering Open Textbooks (OTB) as promoters of a broad set of literacies, namely, in the context of the information literacy, on the one hand, and, on the other hand, in the context of the critical literacy. Cummings (2023) associates as well OP with OER and OEP through OTB, hence embodying what he calls the Open Teaching (OT).

In the literature review carried out by Chiappe & Lee (2017) regarding OT, it is associated with flexibility and access as factors that allow autonomous work, particularly in an e-learning context. The authors also associate this autonomous work with OER, namely with OTB, thus emerging active learning as a core element. In turn, Olcott (2022) emphasizes the element associated to “teaching” in the teaching/learning binomial, hence considering that “Open teaching is an instructional framework that draws upon open practices, resources and pedagogical strategies designed to promote access, enhance teaching quality and improve more effective learning in educational environments” (p. 160).

In the context of Open Learning (OL), Li (2018, pp. 409-413) reviews the concept over time and associates it with the technologies that support it, namely: “Correspondence learning (before the 1960s)”; “Distance learning through multiple technologies (1960 to 1985)”; “Distance learning with increasing use of computers and networks (1985 to 1995)”; “Online learning through high-bandwidth computer technologies (1995 to 2007)”; “Interactive online learning Web 2.0, mobile and synchronous technologies (2008 to the present)”. Therefore, OL “involves an educational philosophy and operational practices that it denotes and/or connotes. Open entry, freedom from barriers and learner-centredness embody educational principles or ideals. Having flexibility in learning and adapting various strategies in teaching and learning are ways to achieve these principles. Technologies provide the means and tools for open learning to take place in its preferred way and be distinguished from conventional learning” (Li, 2018, p. 419).

These are indeed important features, mostly in distance education, as is our case (Cardoso & Pestana, 2021), and that is why we highlight, as the author, the role of open universities in the world as promoters of scenarios in Virtual Learning Environments (VLE) with those characteristics. Green (2018, n.p.) segments the OL phenomenon in three dimensions: the first situated in a contemporary dimension that focuses “on the use of openly licensed content in tandem with open, effective teaching strategies”; the second “on a more general philosophy of openness in all elements of the teaching process including open planning, open products, and open post hoc reflection”; the third the perspective given between the 60s and 70s of the last century, associated with “open education [...] and open classrooms) to learner centered teaching approaches that were inspired by theorists such as John Dewey and Jean Piaget”.

Open Teaching and Open Learning converge and can be considered as two sides of the Open Education, pertaining to the teacher and to the student, or even as two sides of the “WikiPedagogy” (Olcott, 2022), the former linked to the educational dimension and the latter to the pedagogical dimension, all targeted at the development of the wikiliteracy as we have been advocating. Initially, the wikipedagogy was associated with the pedagogical framework that involves working on a Wiki software (Bower, Woo, Roberts, & Watters, 2006) and was later associated with work with the Wikimedia ecosystem (Baltzersen, 2010; Humer, & Schnetzer, 2022; Sura, 2015); to us, it combines both the openness and the wiki premises, of which we highlight, from the former, the blended (e)learning and the flipped learning approaches, and, from the latter, the peer review and the collaborative work (cf. Figure 1).

Wikiliteracy is a concept created by Ball (2019), which we have been subsidizing with other contributions (e.g. Reddy, Sharma & Chaudhary, 2020; Reddy, Chaudhary, Sharma & Hussein, 2023). Thus, we assume that the wikiliteracy is directly allocated to Digital Literacy, which, in turn, includes the: Information Literacy (knowing how to identify the information you need and being able to obtain it from digital sources of information, which involves researching, analyzing, synthesizing, critically evaluating and fulfilling all copyright and sharing rules); Computer Literacy (knowing how to use computers and digital technologies); Media Literacy (being able to access,

analyze, evaluate and communicate information on various digital platforms); Communication Literacy (being able to communicate individually and in a network, taking advantage of Web 2.0 tools, in which the use of the internet is not only passive, but also active, by content production); Visual Literacy (perceiving and representing information from digital media in pictorial images or graphics); Technological literacy (using digital technology to enhance learning, performance and productivity).

To this set of literacies, we add Critical Literacy which, in line with English (2023) and McKenzie (2023), allows to promote a critical stance, response or action in relation to a problem. Critical Literacy, despite being associated with most of the literacies previously identified (e.g. Information Literacy and Media Literacy), assumes a dominant and transversal position within the Digital Literacy, namely, in the context of the Wikiliteracy, that is, associated with the Wikimedia Ecosystem, as when we integrate it from the point of view of the curriculum and/or of the pedagogy (Cardoso & Pestana, 2022). Hence, according to McKenzie (2023, p. 3), “Wikipedia is arguably one of the best tools for teaching critical literacy as a result of its hegemonic position in the information landscape [...] coupled with students’ casual familiarity”. Moreover, it is also a promoter of the Digital Capital.

Digital Capital: facets of a multidimensional concept

The “Digital Capital” refers to “a set of internalized abilities and aptitudes [...] as well as externalized resources [...] that can be historically accumulated and transferred from one arena to another [...] contributing to life opportunities enhancement by creating a bridge between online and offline realms”; currently it has three levels: 1st “Access” to ICT; 2nd “Use” of ICT; 3rd “tangible outcomes” (Addeo et al., 2023, p. 2). This third level is associated with the effective contribution of opportunities generated by the digital capital. More broadly, and according to Benoiel & Schechter (2023, p. 239), working on digital capital strengthens and influences social capital, economic capital and cultural capital, allowing us to cultivate “educational capacity and resilience in the school ecosystem, with a particular focus on the role of digital capital in reinforcing the school ecosystem capitals”; therefore, the digital capital is the sixth capital. DuBose (2023, p. 50) also highlights the system of communicating vessels between the six capitals, thus stating that “Communities that are underrepresented in digital spaces are often also low in the traditional 5Cs”, i.e., the “Social Capital”, the “Economic Capital”, the “Personal Capital”, the “Political Capital” and the “Cultural Capital”.

As for the “Digital Divide”, currently three levels are also identified: 1st “inequalities in access to ICTs”; 2nd “inequalities in using ICTs”; 3rd “inequalities in tangible outcomes” (Addeo et al., 2023, p. 2). Other authors relate the digital divide to “Social Stratification”, either through “Race”, “Geographic Location”, and “Gender” (Wilson, Wallin & Reiser, 2003), or “Age”, “Gender”, “Education”, and “Region” (Singh, Singh & Nermend, 2022). These authors assume that “[t]he digital divide is one of the most unexpected outcomes of the digital revolution. It has a detrimental impact on all aspects of society and exacerbates existing socio-economic injustices. It is equally true that the formation of digital capital is the result of existing social and cultural capitals, as well as different forms of inequalities in society” (p. 7).

In line with the Bourdieu’s definition of capital, Merisalo & Makkonen (2022) also relate different forms of capital as unavoidable elements for entering the digital world. Thus, these elements are linked to the possibilities, skills, and willingness to access and use digital technologies, i.e., to perform an activity in the digital space, which relates to the physical capital of the information society (namely, the information infrastructure, the Internet, the hardware, and the software). According to the authors, it was soon realized that restrictions on the Internet access and limited resources, in space and time, mainly due to the lack of quality and autonomy to the Internet access, burden economically disadvantaged groups, hence negatively impacting in all aspects related to a good online experience.

Wikipedia-based research projects can enable to overcome the digital divide, and therefore can enable to achieve the digital capital. So, if students participate in those projects, it is possible to foster the acquisition of a broad set of skills, explicitly the skills that shape the wikiliteracy. DuBose (2023) reminds us that although it is rather easy to find statements that anyone can edit the Wikipedia, the literature evidences the opposite, i.e., editing the Wikipedia, with the established requirements, and relating to the community of Wikipedians can be quite a challenge both for the students and the teachers. The author states that “[g]iven the uneven distribution of the digital capital required to represent one’s community on Wikipedia, teaching community-based assignments using Wikipedia creates rich opportunities to extend an institution’s digital capital to the community and promote student learning” (p. 55); these are the opportunities that we have been creating within the WEIWER® International Academic Network, as illustrated by the conceptual map below, which summarizes the theoretical framework of the curricular and pedagogical integration of Wikipedia we developed.

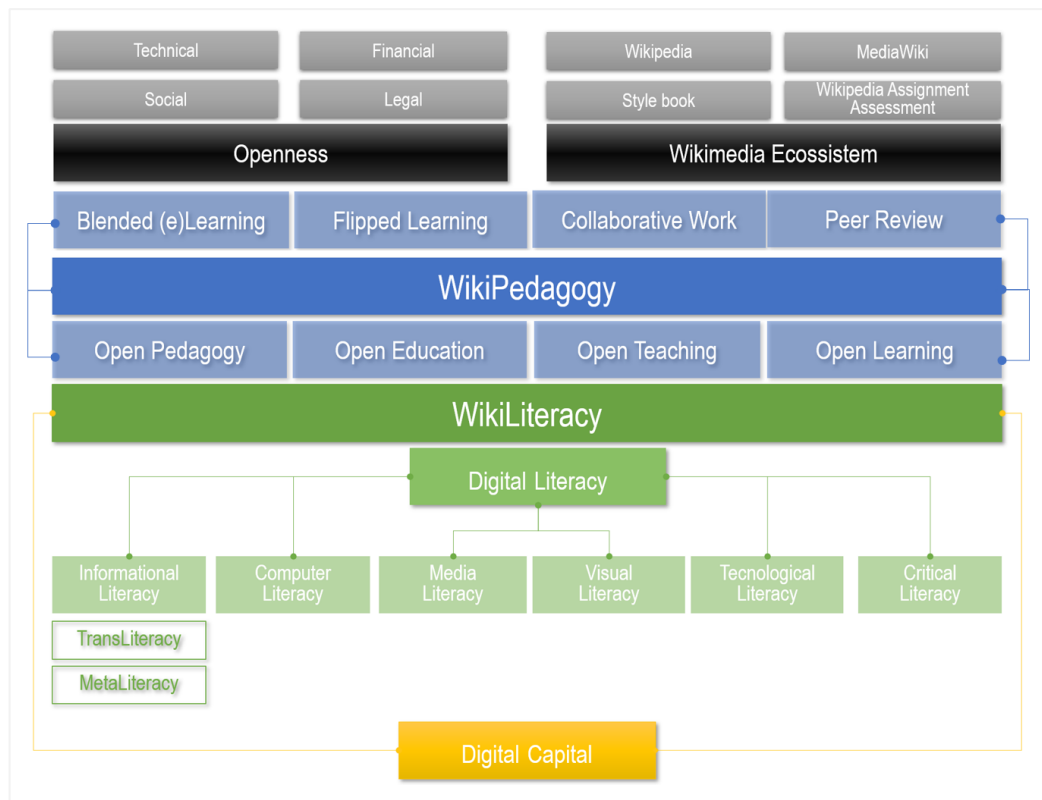


Figure 1. The WikiPedagogy in the light of the Digital Capital.

Conclusions

The curricular and pedagogical integration of the Wikipedia that we have been undertaking for over more than a decade, since 2014, includes the (re)creation of open educational resources, at all levels of education, which is carried out collaboratively through active methodologies, centered on students, such as Flipped Learning. Ultimately, students are challenged to develop a set of literacies converging to the digital literacy, which, in turn, sustains the wikipedagogy as we have redefined it. So, by reframing key concepts (open pedagogy, open teaching, open learning) in the light of the digital capital, particularly inspired by our work, it has led us to contribute to open educational practices. In a word, our path from open education to wikiliteracy has shown us possible ways to contribute to the learners' developing of a broad set of literacies, which, in the end, reduces the digital divide and simultaneously promotes meaningful learning impacting on learners.

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