Chapter 8
Digital Access and Literacy: Familiarity With Digital Technologies in European Union Countries

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ABSTRACT

The subject of digital literacy (DL) is critical to encourage the development of indispensable skills for full participation in the information society where we live. At the same time, the concept of digital divide (DD) embraces a multidimensional character justifying the reformulation of the name to digital inclusion (DI) that integrates factors such as social economic development, education, gender, or physical characteristics. The notion of DL works together with the notion of digital citizenship (DC): a DC is one who has the ability to participate in society by means of online communication, of finding information, or of using goods and services. The present study analyzes the digital access and literacy in schools in 21 OECD countries, positioning Portugal in the global context. To accomplish this objective, the study uses the results on familiarity with ICT and digital skills based on the PISA 2009 to 2015 computer-based assessment.

INTRODUCTION

In the past, scholars have drawn attention to digital equality in general, as well as to the problem of inclusion as a precondition for the future development of society, communities and individuals. (Castells, 1996). Today, we live in an increasingly connected world where the use of gadgets and tools with access to the Internet are challenging our abilities to communicate, to work with, to socialize, or just to get information (Pérez-Escoda, Iglesias-Rodríguez, & Sánchez-Gómez, 2016). The proliferation of DOI: 10.4018/978-1-7998-1591-4.ch008
Internet-based forms of communication has had a dramatic impact on the way in which societies, media and political actors act and interact in the twenty-first century. This means that the subject of Digital Literacy (DL) is critical to encourage the development of indispensable skills for full participation in the information society where we live in (Hobbs, 2010). Another concept is the one of Digital Divide (DD) that has been on the international agenda almost since Internet came into existence (Epstein, Nisbet, & Gillespie, 2011). Golding (2017) argues that inequality in access to and ownership of communication resources affects the capacity to be an informed citizen. This author insists that, despite the abundance of information available on-line, there is growing inequality of access to quality information and that this disadvantage translates into a citizen disadvantage. To such a great extent, DD became understood not merely as an access problem but as a complex multidisciplinary phenomenon closely related with the political, economic and cultural development of a society, justifying the reformulation of the name to Digital Inclusion (DI) (Vartanova & Gladkova, 2019).

At the same time and as legal and regulatory instruments at a nation state level can no longer guarantee citizens’ democratic rights to information and communication, Trappel (2019) proposes that this must be the task of the European Union. This idea is shared by Nieminen (2019) who recommends a radical democratic reform of the European Union’s media and communication policy that would base citizens’ democratic rights in five big policy areas: access to information, availability of information, media competence, dialogue and privacy. The Program for International Student Assessment (PISA) is a triennial survey provided by the Organization for Economic Cooperation and Development (OECD) to test the skills of 15-year-old students and it is “designed to gauge how well the students master key subjects in order to be prepared for real-life situations in the adult world” (OECD, 2019). The results collected from the assessment are public.

The present study aims to analyze the digital access and literacy in schools in 21 OECD’s countries, positioning Portugal in the global context. To accomplish this objective, the study makes use of statistical data from Direção-Geral de Estatísticas da Educação e Ciência (DGEEC), the Portuguese department of the Education Ministry responsible to maintain and to develop the Portuguese integrated system for information and management of education and training. In particular, it uses data from Statistics Portugal (INE) on private and public schools, together with information delivered by OECD resulting from PISA. INE is the official body in Portugal responsible for producing and disseminating quality official statistical information, promoting the coordination, development and dissemination of national statistical activity. The results present an overview of the position of Portugal comparatively to other European Union countries on familiarity with Information and Communication Technologies (ICT) and digital skills.

The paper is organized as follows: after the literature review and the methodological context, results are presented on the digital citizenship and digital access of Portugal comparatively to other European countries. The paper ends by presenting some solutions and recommendations, further research directions and a general conclusion.

**DIGITAL LITERACY HANDS ON**

The subject of DL was initially described by Gilster (1998, p.1) “as the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers”. Then the concept was enlarged to include the capacity of finding and retrieving digital information (Bawden, 2001) and, later on, to “involve sourcing using, evaluating, analysing, aggregating, recombining, creating