

# Chapter 5

## Development of Digital Materials for Diversity and Social Inclusion Practices

**Julio Cabero**

*University of Seville, Spain*

**Carmen Llorente**

*University of Seville, Spain*

### ABSTRACT

*When addressing educational and social inclusion, it is fundamental to take into account several aspects, such as the fact that not only people with some difficulty benefit from them, the right of everyone to education, and the incorporation of those individuals excluded from the system based on gender, culture, race, or personal characteristics. Thus, the development of digital materials from and for the practice of diversity and social inclusion is an integrating element that, from formats such as augmented, mixed, or virtual reality, provides different possibilities in those areas where they are least integrated. This chapter addresses, firstly, the concepts of social inclusion and diversity, the influence and impact of information and communication technologies (ICTs), and the digital materials used in the educational scope from different analytical approaches.*

### INTRODUCTION

In the early 21<sup>st</sup> century, great changes have occurred in different sectors, such as professional work and the jobs associated with it, the management and organisation of knowledge, education –with a new social collective imagination about remote education–, the contemplation of new educational scenarios (beyond the formal scenarios and promoting a deeper and hybrid learning), the emergence of new learning theories to explain the acquisition of knowledge in this society of learning (based on connectivism, ubiquitous learning, mobile learning, rhizomatic learning and invisible learning), and the setting of new technological scenarios, digitalisation products, the exponential growth of technologies, the emergence

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of the Web 2.0 phenomenon and the significance of ICTs in this society of knowledge. Digital skills, i.e., the capacity to use technology and the cognitive capacity required to do it successfully, are essential in the current and future process of social inclusion. Before the COVID-19 pandemic, jobs were already undergoing a massive technological transformation, where even workers of lower levels already used all types of digital devices and equipment. Since the pandemic, the importance of digital skills and their correlational effect on social inclusion have increased.

The Horizon Reports carried out by the NMC institution provide a view of the valuations made by different experts with respect to the technologies that will be emerging in a “horizon” of one year, 2-3 years, and 3-6 years.

This chapter approaches different fundamental elements for the development of digital materials to contemplate diversity and social inclusion practices. To this end, it is essential to know the main characteristics of social inclusion through the development of digital resources, as well as to identify them without limitations, framed within the educational scope, favouring their educational potential. Similarly, we will delve into the potentialities of different emerging technologies (e.g., augmented, mixed and virtual reality) to favour social inclusion.

## **Concerning Social Inclusion, Diversity, and the Influence of ICTs**

It is obvious that social inclusion and diversity have acquired great transcendence and become a topic of debate for public policies in education.

The phenomenon of ICTs and their impact on the scope of education could be contemplated from a double perspective. On the one hand, they constitute an element through which the digital divides have increased, and their incorporation has favoured aspects of inequality, such as the difference between the people who have access to them and those who do not, and between those who have digital skills and those who do not, as well as differences not only related to development spaces but frontiers that are measured in terms of digital literacy (Ortoll, 2007). On the other hand, digital materials pose an opportunity of inclusion for all those disadvantaged people (education, work, health, access to information, communication, etc.). Therefore, diversity and social inclusion are directly linked to the use of ICTs in the so-called Society of Information and Knowledge (Cabero, 2014).

However, it is important to take into account that the mere presence of digital technologies and materials will not directly ensure a process of inclusion; their adequate use and management will guarantee their function as tools to favour social inclusion. This requires a set of conditions, which Cabero and Córdoba (2009) pointed out as fundamental for a true educational digital inclusion:

*Firstly, the presence of ICTs; then, access to and use of technology; lastly, the generation of a digital literacy process to know the languages and symbolic systems of a society of information and knowledge (p. 199).*

To define the concept of digital inclusion, we must take into account that there are multiple definitions of it made by different international organisations, such as: United Nations (Unesco), the Organisation of American States (OAS), the Economic Commission for Latin America and the Caribbean (ECLAC), etc. All the policies that are presented are adjusted to the regulations of each country; in this work, we take the one suggested by the EU, which states that it is:

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