Chapter 15
Importance of Data Management in Digital Media Literacy:
Integration of Cultural Elements in Children With Deep Learning Techniques

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ABSTRACT

A digital literate person is identified as competent person in the three dimensions of digital technologies, defined as technical, cognitive, and socio-emotional. In particular, under the technical dimension, the person is able to use the tools of the digital world in a competent way. Considering this definition given in technical dimension, it is seen that the individual being a good digital literate is also related to the tools of the digital world. However, no matter how good a digital literate can be, she/he is suffocated in the information if there is no tool to help in accessing information in a certain area, because of the size of digital world. The purpose of this study is to strengthen the technical dimension of digital literacy by developing a tool for reaching the correct visuals by using deep learning techniques. In order to fulfill that purpose, transferring cultural heritage to the next generation by avoiding disturbing visuals, was focused.

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INTRODUCTION

Culture is an important proof of the existence of a society. In fact, the collection of the material and spiritual values create the identity of the society. That identity shapes the habits, attitudes, and future steps of a society's future generations (Beamer & Varner, 2001). The concept of culture can be accepted as a social memory, as the common goals, values, beliefs and behavior patterns are formed by the society while maintaining its existence (Hodgetts & Luthans, 1999). Social memory constitutes a set of values spreading through the symbols and language of a social group (Assael, 1984). All societies must accomplish the fundamental activity of sustaining that that multidimensional set of values in order to leave a legacy to future. The continuity in that process of inheritance is related not only to the existence of heirs but also to the intergenerational transfer (Kurniawati, 2015). Even though there are very different characteristics related to this transfer process (Hodgetts & Luthans, 1999), tangible contributions--outputs-have a critical place. Because the elements of culture may be transferred from generation to generation verbally, they are faced with the danger of deformation, destruction, and extinction. However, thanks to the tangible contributions such as poets and writers, culture can survive the journey and transfer it to the future.

Cultivation and adoption of tangible contributions into formal, informal, and non-formal learning processes play an important role in the transfer process. Indeed, according to Schiffman and Kanuk (2004), there are three ways to learn a culture. These are: formal learning; non-formal learning; and technical learning. In formal learning, the older individual teaches the young members of the family how to behave. Non-formal learning is the process in which young individuals learn by choosing role-models and imitating the behavior of celebrities, friends, or family members. In technical learning, learning processes are defined through teachers as planned activities in an educational institution. In addition to all these definitions, the digital world, which has become an extensive part of individuals' lives, creates a new kind of learning environment in the acquisition and reconstruction of culture. Castells (2003) states that culture, which was initiated by communication and delivered by communication, has undergone a significant transformation as a result of technological developments. Similarly, Bozaslan (2012) emphasizes that technology has influenced art, literature and aesthetic values, which are important parts of the culture. In parallel with the transformation of culture shaped by technology, the transformation of society into the "information society," which started in the 1950s, accelerated.

The term "information society" refers to a structure where technology enables communication at new, faster speeds basic economic activities are based on information (Bradley, 2017; Martin, Eisenbud, & Rose, 1995). In this society, where information is at the center, obtaining true information through data is the key goal as well as the biggest problem. The main source of this problem is the incredible increase in the amount of data produced by human beings. Between 1986 and 2007, the data available in the world doubled every 40 months (Hilbert, 2011). This growth, which is supported by data in the digital universe, will continue to increase by 50 times through year 2020; by the end of 2020, the data increase rate will be over 40000 Exabyte (1EB = 1024 PB) (Gantz & Reinsel, 2012). Shah (2019) states that in the first month of 2019, the amount of data consumed / used per capita increased by more than 9GB, and the data consumption per capita in the world reached 11GB in half a second. This growth in the amount of data and thus in information has led to various problems in terms of both access and content.