

## Chapter 2

# Online and Distance Education in the Era of Rampant Technological Revolution

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### ABSTRACT

*Developments in information and communication technologies have reached an all-time high. These improvements have accelerated the transformation of higher education milieus on all sides. Accordingly, higher education institutions have begun to be delineated by these technological developments, activities, and practices. This technoculture era has started a new interaction among communication technologies, teachers, and learners. Herein, transhumanism regards changes in societies through these technological interactions and transformations. The worldwide technological transformation is approximating all societies and cultures to Marshall McLuhan's notion of a global village day by day as a consequence of the technology paradigm. The heydays of the developments in technologies affect all human beings at all points from living, learning, communicating to eating and even thinking styles. Taking these points into account, this chapter will explore how these variables may influence the online distance education milieus in terms of technoculture and transhumanism perspectives.*

### INTRODUCTION

Technological revolutions have changed the globe continually. Further, the stream of technology has been removing all barriers among the biological, psychical, and physical zones of human beings. Increasing globalization as a result of developments in information and communication technologies (ICTs) demonstrates its effect from industry to the economy, and from education to our way of thinking. Therefore, the last quarter of the 20th century witnessed rapid and intense changes. With the advent of the Internet and other online technologies, it is often said that a very different future, which is probably beyond our imaginations, waits for us. Although it was foreseen that the 21st century would be technologically dif-

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ferent from the last century, it was not possible to predict such dazzling changes. The most important source of these changes has been the ICTs and the increasing appearance of their applications all over life. The applications of these changes have been implemented in the world of industry. By this means, the business world is changing on and on, so the way of teaching and learning must also be changed to keep up with the world of work.

Within the technological revolutions, education has been undoubtedly the most important area that exposed to change. Even though this area tries to catch the stream of the change, most implementations and practices are still in their infancy. In the past, the requirement of being in a certain place and time for learning has changed and the opportunity to learn at any time and place has become part of the mainstream education. Initially, the change happened in the distance education area and following this change this field has been transformed into online learning by means of ICTs.

Taking the current position of the technological sphere into account, much can be done to help all the current stakeholders to overcome the constraints in today's online learning environments. Considering that artificial intelligence (AI), machine learning and blockchain technologies have penetrated to our lives, it will be inevitable to see the substantial changes in open and distance learning processes and environments, too. Even though we are at the dawn of the technological shift, AI-integrated and blockchain-reinforced online and distance learning environments can strengthen their immune system and adapt themselves to these changes. We are now in the era of transhumanist paradigm where we should decide on our route and take the best of these views and applications to accord the online distance learning environments. This is because the increasing number of technophiles entails the authorities to adjust their present ways to take advantage of these transformations. The founder and executive chairman of the world economic forum, Klaus Schwab, pointed out to this transformation and stated that:

*We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society. (Schwab, 2016)*

In many areas, but most especially in online distance learning milieus, educational institutions should, metaphorically, begin to offer an *a la carte menu* instead of *table d'hote menus*. In order to take advantage of this wind of change, the authorities should adjust their practices to keep up with today's societies that also exist in virtual spaces. Especially unorthodox learners who do not have the same learning patterns of prevailing teaching methods need to be taken into account. That is, in terms of technoculture and transhumanism perspectives, this chapter will explore how these variables may influence the online learning milieus. Based on the above thoughts, this chapter aims to discuss the strengths, downsides, and opportunities of these technologies will be discussed. Additional, this chapter further presents the inevitable changes, probable challenges, opportunities, and some suggestions will be presented.

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