

Chapter 54

E–Transformation in Higher Education and What It Coerces for the Faculty

Ela Akgün-Özbek

Anadolu University, Turkey

Ali Ekrem Özkul

Anadolu University, Turkey

ABSTRACT

With the phenomenal developments in information and communication technologies, higher education has been facing an unprecedented challenge that affects all the stakeholders. Faculty is no exception. The authors synthesize the demographic, economic, and pedagogical factors that lead to a paradigm shift in higher education and the global trends in digital technologies that impel digital transformation in higher education. They then provide a snapshot of how higher education institutions respond to this challenge and change, and the impact of these factors on the roles and competencies of faculty that need to be covered in faculty development initiatives in the digital age. Finally, examples of faculty development programs and initiatives that address the digital competencies of faculty are provided along with a summary of faculty development models for teaching and learning in the digital age.

INTRODUCTION

The impact of the unprecedented developments in Information and Communication Technologies (ICT), pre-eminently the accessibility provided by the Internet, is unquestionably one of the milestones that calls for a transformation in teaching in Higher Education (HE). ICT that is continuously advancing with developments like Web 2.0, Web 3.0, big data, data analytics, artificial intelligence, Internet of Things, virtual and augmented reality have tremendously affected the creation and diffusion of information that have led to a spiraling of recreation, regeneration, and the consumption of information. Correspondingly, an economy which had been shaped by industrial production between the 18th-century Industrial Revolu-

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tion and the last quarter of the 20th century has radically changed; and information and knowledge have become the most important and valuable means of consumption and production in the post-industrial period. This expeditious diffusion and consumption of information have resulted in globalization. As Karaman (2010) emphasizes, “While knowledge was a medium to support production in the process of industrialization, with globalization it has become the central productive power and a factor that determines the capital accumulation rate” (p. 134). The shockwave of this shift can be observed in all institutions of societies; and individuals, along with institutions, are required to adapt to the rules of this new game that is designed by digital technologies. As institutions that shape and are shaped by the above-mentioned developments, Higher Education Institutions (HEIs) are also expected to respond to this e-transformation with all their stakeholders.

According to Akinci and Seferoğlu (2010), “While to be literate was sufficient for individuals at the beginning of the last century, today it is a must to be competent in the effective use of technology, to be able to produce new products and to have higher order thinking skills” (p.475). In the context of HEIs, this set of competencies is expected not only of leaders and students of HEIs, but they are increasingly becoming vital for the faculty that are responsible for the education of the target population.

Despite this tremendous transformation, universities and faculty are criticized for being reluctant and resistant to change (Bates, 2015; Schejbal, 2013; Starnes, 2016; Tagg, 2012). Therefore, in order to provide a foundational explanation for the increasing need for faculty development (FD) for teaching and learning in the digital age, the rationale for such initiatives should be made clear. To serve this purpose, the landscape of HE needs to be analyzed comprehensively with a new paradigmatic lens. In the following parts of the chapter, demographic, economic and pedagogical factors that lead to a paradigm shift in HE, along with the global trends in digital technologies that impel digital transformation in HE, are synthesized. A sampling of how HEIs respond to this challenge and change, and the impact of these developments on the roles and competencies of faculty that need to be covered in FD initiatives that focus on the competencies of faculty in the digital age are also provided. Finally, examples of FD programs and initiatives that address the digital competencies of faculty are exemplified along with a summary of FD models for teaching and learning in the digital age.

E-TRANSFORMATION AS A DRIVER OF PARADIGM SHIFT IN HIGHER EDUCATION

The call for a change in the paradigm of education is not new. The requirement for a new education system that meets the demands of a new world order was voiced by many educators and philosophers like Dewey and Dewey (1915), Toffler (1971) and Illich (1971) even in a period when computers and the Internet were either not present or had not become a public good. Later, the transformation of learner-learner, learner-faculty and learner-content interactions as a result of the rapid development of ICT since the last quarter of 20th century has called for a metamorphosis of the educational processes. As such, the notion of change, innovation and paradigm shift has been a phenomenon that has frequently been expressed as a response to the changes in the needs and expectations of individuals and institutions in the 20th century (Aktan, 2007; Barr & Tagg, 1995; Desai, Hart & Richards, 2008; Gültekin Çetiner, Türkmen & Borat, n.d.; Medvedeva, 2015; Özkul, 2001; Wielicki, 2008). While ICT is a sufficient driver of change, other factors initiated by the advances in technology have led to a paradigmatic shift in the way education is interpreted and practiced.

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