# Chapter 12 Social Network Synthesis: A Dynamic Approach for Building Distance Education Programs

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# ABSTRACT

Distance Education is more preferable by both learners and institutions in the 21st century. The technology, teaching-learning and communication processes are in a change that each stakeholder should comply with. One up-to-date form of these processes is social networking. Social networks have the potential of providing access to more resources and improving the quality of communication and interaction. Social Network Analysis and Network Weaving approaches are useful to determine the social network structure and improve it. Further to that, in this chapter, "Social Network Synthesis" approach is introduced, obtained by applying synthesis process on Social Network Theory. The approach is thought to allow for the establishment of optimum relationships between the concerned actors in a newly configured goaldirected social network. An illustrative framework that can be used for building Distance Education programs is also presented.

## INTRODUCTION

Developments in Information Communication Technologies within the changes on views of education and teaching has lead Distance Education to be gradually preferable for both institutions and learners. The Distance Education Programs' superiorities can be effective on this choice like learners' providing a workforce while learning (Macdonald & Poniatowska, 2011), avoiding a possible job loss because of living in another place, removing the problems like accommodation which can cause a negativity on time and cost (Burgess & Russell, 2003). According to Sloan-C's data in 2011, the number of students joining at least one (online) distance education class is 6,7 million outnumbering the previous year with

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an increase of 570 thousand more students (Allen & Seaman, 2013). In mostly young populated Turkey, to meet the demand for increasing capacity in higher education without making large investments, developing distance education was concluded as one of the solutions (YÖK, 2007).

Developments occurring in the field should be reflected as well as running particularly field related notional and practical knowledge and skills on process of management, implementation and design of Distance Education Programs. In Distance Education, learners and teachers are connected to a technology to transfer information and communicate with each other as a result of being in different places on most part of the educational activities (Moore & Kearsley, 2005). Therefore, researches should be done on the developments and changes of technologies by following them closely to determine their active availability in Distance Education. In development of Distance Education when it is closely taken into consideration, it is observed that application usage changes depending on the technology. In Distance Education, different approaches from philosophy and pedagogy are also adopted as there are changes in technological perspective.

Distance Education even when considered as a system, it is inevitable not to see existence of relationship affecting each other between its components (Moore & Kearsly, 2005). For instance, the change in technology has played a role in shaping the pedagogical dimension in Distance Education. The system approach must be adopted while designing a Distance Education Program, so; the relationship among dimensions (learning, technology, communication, management, evaluation) should not be ignored. Within the framework of system approach, a communication structure depending on technology might be designed and learning-teaching activities built on that communication structure might be planned while configuring Distance Education Programs.

Taylor (2001) explained Distance Education models and distribution technologies depending on technology in five generations as for Caladine (2008) mentioned the requirement of a sixth generation subjecting to changes in technology and learning point of views (Table 1). In this context, e-learning 2.0 concept comes forward related to Web 2.0 technology. While providing their contribution in configuration of knowledge, Web 2.0 enables users to interact with each other. Social software, resources created by students, sharing experiences and resources, media richness are the elements giving clues about learning method of the generation. These elements can be interpreted as distance education learners learn by taking part in online social networks or the Distance Education program is or should be designed accordingly.

Although in the 21<sup>st</sup> century social network concept is mostly used in terms of online social networking, it can be said that the social networks exists since human does. Since the very beginning of its existence, human beings have been making different kinds of connections with other people and in this way, various social networks being built. Social network can be described as *actors*, in general, showing different existence such as individuals, groups, companies, nations and within *the relations* (*ties*) showing resource flows can be related to situations such as control, dependence, cooperation, information interchange, and competition (Carrasco, J. A.; Hogan, B.; Wellman, B. & Miller, E. J., 2006). In 21<sup>st</sup> century, the term Social Network is mostly used to define online social networking. This way, individuals also appear to have social networks in virtual environments. This matter happens to be more considering in Distance Education in which interaction and learning is provided via technologies and most frequently the Internet. Social Networks could increase the quality of interaction and communication in Distance Education System. In addition to this, providing learners to reach more resources may contribute to their critical thinking.

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