

## NETWORKING IN LEARNING

**Erdem Öngün**

**Ph.D in Informatics (Communication Sciences)**

[erdem.ongun@khas.edu.tr](mailto:erdem.ongun@khas.edu.tr)

**Kadir Has University  
Istanbul-Turkey**

### ABSTRACT –

What we understand from communication that involves a great deal of human and also animal activity has gone through big changes in terms of the tools and forms used so far.. However, the conceptual basis behind communication is still the same. That is, a form of interaction ruled by sending and receiving messages through various channels. Today in the world of computers, communication is widely maintained through networking which is a practice of linking two or more computing devices together for the purpose of sharing data. Connecting people so that they can share their knowledge makes up the basic function and goal of networks and communication done through them. People might be networked in different settings for different purposes according to their needs or their free will. Learning environment as a dynamic setting is one of the examples where learners need to share and exchange not only information but their learning experiences through networks. This article revises networks by definition along with the background information followed by a review of relationship networking and learning. Finally, it attracts attention to future prospects of both terms.

**Key Words:** *Network(s), Learning, Education Information and Communication Technologies*

### ÖĞRENMEDE AĞ KULLANIMI

#### ÖZET

Bizim anladığımız geniş ölçüde insan ve diğer canlıların eylemlerini de kapsayan iletişim şu ana kadar kullanılan araç ve biçim açısından büyük değişiklikler geçirmiştir. Bununla birlikte iletişimin arkasındaki kavramsal temel halen aynıdır. Bu, farklı kanallar kullanarak mesaj alma ve verme olarak gerçekleşen bir etkileşim biçimi anlamına da gelmektedir. Bugünün bilgisayar dünyasında iletişim çoğunlukla veri paylaşma amacıyla bir veya birden fazla bilgisayarın birbirine bağlanması ile oluşan ağlar üzerinden sağlanmaktadır. İnsanları bilgi paylaşabilmeleri için birbirine bağlama ağlarının ve onun üzerinden yapılan iletişim temel amacını oluşturmaktadır. İnsanlar farklı ortamlarda farklı amaçlar için isteklerine göre birbirlerine ağ üzerinden bağlanabilir. Dinamik bir ortam olarak öğrenme ortamlarında öğrenen kişiler ağ üzerinde sadece bilgi paylaşmakla kalmayıp tecrübelerini de paylaşmaktadırlar. Bu çalışma sırasıyla ağları tanımlayarak onların geçmişine göz atıp öğrenme ve ağlar arasındaki ilişkiyi incelemiştir. Son olarak hem öğrenme hem de ağlar açısından gelecek ile ilgili yaklaşımlar tartışılmıştır.

## **Anahtar Kelimeler: Ağ(lar), Öğrenme, Eğitim, Bilgi ve İletişim Teknolojileri**

### **INTRODUCTION**

#### **Background to Networks**

Networks actually have been integrated into our lives long ago. But before long we have become aware of their importance and roles in various scopes of our living. Perceptions towards the concept of network and networking displayed a multidimensional prospect throughout different stages of technological advancements. Using networks mainly for communication was the main concern for all the things involved. A study conducted by National Research Council (2001) points out that networks for data communication have a more uneven history than those for voice, although they have largely been built on the same underlying infrastructure (e.g., through the use of lines provisioned by telephone companies). Early data communications networks emerged in the 1960s and 1970s along with time-sharing computer systems. The major computer vendors developed software that supported interconnection of their machines, and consequently the early data communications networks were proprietary rather than public. Most of them were corporate networks linking different sites of a firm via leased telephone lines. Pioneer users were large corporations in the electronics and automobile industries and firms in the financial services sector; the multinationals took the lead in creating private global networks, primarily to facilitate intraorganizational data exchange.

Similarly, human organizations can be regarded as networks, often captured graphically with organization charts. Our brains are immense networks of highly interconnected nerve cells, responsible for our ability to see and hear, make decisions, remember and learn. If there is one word to describe society in the early 21st century, it surely must be “connected.” We have grown up taking it for granted the vast interlinked networks that bring electricity, water, gas, and cable TV to our homes and that allow us to be in personal contact with others almost anywhere in the world by telephone, e-mail, and other communications means. The Internet, especially the World Wide Web (www), is thoroughly ingrained in our everyday lives.

For the last decade or more, as put by Galloway et al. (2007) network discourse has proliferated with a kind of epidemic intensity: peer-to-peer file-sharing networks, wireless community networks, terrorist networks, contagion networks of biowarfare agents, political swarming and mass demonstration, economic and finance networks, online role-playing games, personal area networks, mobile phones, “generation Txt,” and on and on. Furthermore, Qualman (2010) states that people use several media sources in combination to formulate an opinion—not just one source. Networks that recognize this and attempt to work effectively with the new forms of social media will survive

Finally, from a sociological point of view, in their study Breiger and Carley (2003) make it clear that network researchers are likely to agree with anthropologist Mary Douglas that “in a complex society, networks are the minimum level at which social relations can be investigated.”

Today, people have been socially networked to each other. As you walk by someone on the street, you are most likely to pass by a someone that you probably met online the night before for any purpose. Our society in this century consists of members that feel committed to a sort of social network, which technically binds us but socially isolates us in a way.

## **Use of Networks in Education**

It is a question that what we can learn on a network can outreach what we can learn from a network. To put it in a simpler way, we often miss the point that as long as we turn on our computer we are already connected to an immense world of networks. Networks pave the way for not only integration of the world but it also serves for practices in different areas. Education is one of them. Educational institutions are dynamic structures that are often likely to go through from top to bottom or vice versa innovative changes. Typically, schools or school systems seeking help and guidance look outside rather than inside schools. Allen & Lunsford (1995). The change is inevitable for everyone or every single unit.

Schools make the most of knowledge transition and innovation processes. The primary way in which schools have traditionally accessed ideas and knowledge is through formal staff development efforts such as workshops, in-services and conferences. During the past decade, a new way of accessing ideas and knowledge has gained increasing attention globally and involves the participation in school networks essentially; school networks help schools learn from each others' efforts. They consist of educators from a number of schools who come together owing to a shared vision of schooling and who are connected to each other typically via a loose organizational structure that facilitates their interaction across schools. School networks are based on the beliefs that you cannot improve student learning without improving teacher learning (and that teachers learn best by sharing ideas, planning collaboratively, critiquing each others' ideas and experiences, and reducing the isolation encountered in most schools. Networking results in increased professional interaction across schools, which generates excitement and learning. This excitement can be positively and efficiently reflected on the educational process as a whole.

Network learning for educational change provides examples and more questions, as all good research and practice should. Emergence of network learning School– university networks are becoming an important method to enhance educational renewal and student achievement from pre-kindergarten through to graduate education. Adding university partners to school networks expands the learning continuum and helps reduce tensions of topdown versus bottom-up, pre-service versus in-service, theory versus practice and formal versus informal organizational Networks encourage and support student-centred learning environments through the development of high standards for all students, smaller and more personalized learning environments, authentic and connected student learning, democratic leadership structures, and the use of data to support continuous improvements.

A network is an opportunity for schools and universities to work together as equal partners. In a network, schools and universities assume joint responsibility for developing and sustaining the network. Both types of institutions must have a feeling of ownership and enhanced learning opportunities for their members. Both recognize the benefits and challenges of developing seamless education, from pre-kindergarten through to graduate education, to promote high quality learning environments. Examining issues of equity and diversity Networks help expose educators and their students to a wide array of diverse viewpoints, perspectives and experiences. Through networking, participants examine their own practices involving issues of equity and diversity, and collectively develop and promote policies and practices that recognize equity and diversity in accordance with the core values of a democratic and civil society. Moving from conventional to authentic and democratic practices Networking opportunities help teachers and administrators share practices, leadership and power. (Veugelers et al., 2005). Thus they will feel freer and more comfortable confronting possible obstacles as being networked they know that they are far from being alone in the cyber world.

## **Network Learning**

‘Networked learning’ is a unique form of lateral engagement (between schools and networks) required for effective network and system learning is a form of learning that encompasses the notion of building capacity within schools and networks (Hopkins and Jackson 2002) so that they promote not just school or network-level learning but systemwide learning. Networked learning is at the heart of collaborative capacity building. It occurs where people from different schools in a network engage with one another to enquire into practice, to innovate, to exchange knowledge and to learn together. ‘The existence of more formal structures via a network offers a means of the whole system learning from what is going on in that network.

Networked learning can be practised in both informal and formal educational settings. In formal settings the learning achieved through networked communication is formally facilitated, assessed and/or recognised by an educational organisation. In an informal setting, individuals maintain a learning network for their own interests, for learning "on-the-job", or for research purposes.

Networking accelerates the change process and fosters learning by providing a safe environment that encourages innovation as well as critical and supportive feedback, designed to help build long-term capacity for improvements. Learning among networks Just as schools within a network learn from each other by collaborative interaction, so too networks can learn from each other by interaction across networks. Specifically, the learning of networks is accelerated when networks serve as ‘critical friends’ for each other. Educational historians and researchers suggest that one of the most powerful reasons that attempts to reform educational practices have been largely unsuccessful is due to the isolation in which teachers operate. The same might be said of school renewal networks. In order to facilitate the movement of school renewal networks to the next level of learning, the networking of networks is needed.. In order to facilitate global school renewal and network learning, the international networking of networks is essential. (Veugelers et al.,2005). In this respect, every country needs to work towards the improvement of the network knowledge base and infrastructure to be able to set up a better learning environment in the mobile world of learning.

## **Discussion**

Although further readings will shed light on this subject, still hands-on practices and application are of greater concern for those who would like to experience learning process through networked units. Schools should reflect the world we live in today as we live in a social world where students need to learn how to be effective collaborators in that world, how to interact with people around them, how to be engaged and informed as twenty-first-century citizens. We need to teach students the powerful ways of networking that can change the way they look at education, not just their social lives. This can only be achieved through teachers and school administrators who will act as facilitators of this longitudinal process. Today’s understanding of learning is no longer tied to a stand-still solid activity; it is rather regarded as interactive and collaborative involvement realized on communal settings as networks. Future has it that networks will make learning more functional and dynamic through interflowing knowledge units that can be shared by millions of people.

## **REFERENCES**

Allen, Lew; Lunsford, Barbara. (1995) *How to Form Networks for School Renewal*. Alexandria, VA, USA: Association for Supervision & Curriculum Development,

Breiger, Ronald (Contributor); Carley, Kathleen (Contributor);(2003). *National Research Council (Contributor). Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers.* Washington, DC, USA: National Academies Press,

Galloway, Alexander R.; Thacker, Eugene. (2007) *Exploit : A Theory of Networks.* Minneapolis, MN, USA: University of Minnesota Press,.

National Research Council (Editor). (2001).*Global Networks and Local Values : Preparing Communities for Global Communication and Information Flows.* Washington, DC, USA: National Academies Press,

Veugelers, Wiel; O'Hair, Mary John. (2005) *Network Learning for Educational Change.* Berkshire, , GBR: McGrawHill Education,.

Qualman, Erik (2010) *Socialnomics: How social media transforms the way we live and do business.*