Technological Reflections in Social Studies Education

Editor: Erol KOÇOĞLU

Editor: Assoc. Prof. Dr. Erol KOÇOĞLU

TECHNOLOGICAL REFLECTIONS IN SOCIAL STUDIES EDUCATION

Responsibility of the contents belongs to its authors/editors.

First Edition: December 2019, Ankara, Turkey

Contact

PREFACE

The present book titled "Social Studies Education from a Technological Perspective" aimed to determine the themes on technological material used or that could be used in social studies education. The identification and processing of these themes in the book revealed the problems experienced in the transfer of social studies education study area into educational learning environments. These problems, which could be considered as the justification of the development of the present book, included the lack of consideration of certain teaching principles in the social studies education course teaching-learning processes. In this context, the main principles were determined as concretization, clarity and interpretation. In order to eliminate learning problems that are experienced due to these principles, educational material and tools are used in social studies courses. The function of these tools and materials differentiates with the ever-changing Internet technologies. The present book includes sections where the tools and material used or that could be used in learning environments based on the above-mentioned differentiation were scrutinized and analyzed. The present book includes fifteen chapters and each chapter deals with the relationship between the related topic and social studies education. Review of the chapters would demonstrate that the section authors reflected the basic topical concepts in significant themes such as virtualization, technological leadership in information age, cartoons, educational movies, documentaries, computer games, green information technologies, Google Earth, multimedia, emojis, animations, digital literacy, geographical information system, and model and sample use.

<div align="right">

Editor

Assoc. Prof. Dr. Erol KOÇOĞLU

İnönü University Faculty of Education

December, 2019

Malatya

</div>

CHAPTERS AND AUTHORS

Editor: *Assoc. Prof. Dr. Erol KOÇOĞLU*

Chapter 1: Basic Concepts Included in The Present Book
    Assoc. Prof. Dr. Hasan AYDEMİR - *İnönü University*

Chapter 2: Virtualization in Social Studies Education
    Assoc. Prof. Dr. Erol KOÇOĞLU - *İnönü University*

Chapter 3: Technology Leadership in Information Age in Social Sciences
    Assist. Prof. Dr. Gözde MERT - *Nişantaşı University*

Chapter 4: GIS in Social Studies Education
    Assoc. Prof. Dr. Mustafa SAĞDIÇ - *Yıldız Technical University*
    Lecturer Mehmet KOÇOĞLU - *Munzur University*

Chapter 5: Educational Movies in Social Studies Education
    Assist. Prof. Dr. Şule EGÜZ - *İnönü University*

Chapter 6: Digital Literacy in Social Studies Education
    Prof. Dr. Zafer ÇAKMAK - *Fırat University*
    Assist. Prof. Dr. Birol BULUT - *Fırat University*

Chapter 7: The Use of Green Information Technologies in Social Studies
    Assoc. Prof. Dr. Elvan YALÇINKAYA - *Erciyes University*

Chapter 8: Educational Comic Book Use in Social Studies Education
    Assoc. Prof. Dr. Erol KOÇOĞLU - *İnönü University*
    Lecturer Ender ÖZEREN - *Dicle University*

Chapter 9: Use of Emoji in Social Studies
    Assoc. Prof. Dr. Özlem ULU KALIN - *Artvin Çoruh University*

Chapter 10: Use of Google Earth in Social Studies Education
    Prof. Dr. Hilmi DEMİRKAYA - *Akdeniz University*
    Ress. Assist. Orhan ÜNAL - *Ondokuz Mayıs University*
    Ress. Assist. Ülkü Tuğçe ÇAL - *Akdeniz University*

CONTENTS

CHAPTER 1

BASIC CONCEPTS INCLUDED IN THE PRESENT BOOK

CHAPTER 2

VIRTUALIZATION IN SOCIAL STUDIES EDUCATION

CHAPTER 3

TECHNOLOGY LEADERSHIP IN INFORMATION AGE IN SOCIAL SCIENCES

CHAPTER 4

GIS IN SOCIAL STUDIES EDUCATION

CHAPTER 5

EDUCATIONAL MOVIES IN SOCIAL STUDIES EDUCATION

CHAPTER 6

DIGITAL LITERACY IN SOCIAL STUDIES EDUCATION

CHAPTER 7

THE USE OF GREEN INFORMATION TECHNOLOGIES IN SOCIAL STUDIES

CHAPTER 8

EDUCATIONAL COMIC BOOK USE IN SOCIAL STUDIES EDUCATION

CHAPTER 9

USE OF EMOJI IN SOCIAL STUDIES

CHAPTER 10

USE OF GOOGLE EARTH IN SOCIAL STUDIES EDUCATION

CHAPTER 11

USE OF COMPUTER ANIMATIONS IN SOCIAL STUDIES

CHAPTER 12

THE USE OF MULTIMEDIA IN SOCIAL STUDIES EDUCATION

CHAPTER 13

MODEL AND SAMPLE USE IN SOCIAL STUDIES EDUCATION

CHAPTER 14

COMPUTER GAMES IN SOCIAL STUDIES EDUCATION

CHAPTER 15

THE USE OF DOCUMANTARIES IN SOCIAL STUDIES

CHAPTER 1

BASIC CONCEPTS INCLUDED IN THE PRESENT BOOK

Assoc. Prof. Dr. Hasan AYDEMİR
İnönü University

Introduction

The book titled "Social Studies Education with a Technological Perspective" is a study that included various sections and the content of the descriptions of the concepts that the study was based on are included in this section. These concepts were selected by the author after all book sections were authored. Attention was paid to the content validity of the whole book when describing the content in the present section. The concepts listed in the present section included social studies education, technology, educational technology, instructional technology, computer-assisted instruction, computer game, geographic information system and Internet. The impact of these concepts on learning environments as educational and teaching instruments was taken into consideration by the author while describing the above-mentioned concepts. Definitions of these concepts are presented below.

1. Social Studies Education: As a concept, social studies was first introduced in the United States in the early 19th century. In those years, the word 'social' was one of the popular words, and it was used as an adjective preceding almost all reforms. For instance, social development, social productivity, social reality, social research, social control, social education, etc. (Hertzberg, 1981, cited by Doganay, 2008) In the following years, social studies became a concept that included several reforms that were implemented due to changing needs and technological advances. At the end of this process of change and transformation, social studies were transformed into their current form with pedagogical objectives (Shug and Bery, 1987 cited by Öztürk, 2006). Furthermore, social studies entail the integration of the concepts of social sciences and humanities with an interdisciplinary approach for application citizenship skills on critical social issues (Barth, 1991; Sever, 2015). Social studies education, on the other hand, includes different learning areas and disciplines, and is a field of study that utilizes these disciplines, and knowledge,

skills and values in learning areas in order to train active and democratic citizens (Koçoğlu and Egüz, 2019).

2. Technology: The most powerful force that affected the human progress has been the rapid and popular technological advances. Technology, in a way, is the contribution of humankind to the nature to facilitate life, but also an effort of the humankind to understand the environment and then the universe (Kabakçı and Odabaşı, 2004). As a concept, technology is identified with physical objects, tools and processes on one hand, while on the other, it has a social and individual meaning (Ural, 2000). According to Alkan (1998), technology could generally be defined as the development of functional structures that were required to dominate the nature through the use of acquired skills. In a broad sense, technology is the creation of functional methods to dominate nature by employing acquired skills (Alkan, 1998). Furthermore, technology is a systematic application of scientific or systematic knowledge in practical areas. It is the discipline that includes the design, organization and operation of human-machine systems and in this context, machines built in a certain order that includes operations, methods, processes, systems, management and control mechanisms (Aşıgülü, 2017).

3. Educational Technologies: Educational technology could simply be defined as the most adequate responses to the question 'how to teach' after responding the questions 'what to teach and why.' It entails the use of scientific knowledge to design, implement and evaluate methods and processes not only in instruction but also in all other areas of education (learning, management, evaluation, material design, etc.). The concept of educational technologies is also described as the design, implementation, evaluation and development of learning-teaching and educational processes that are the outcomes of the definition of the concepts of education and technology. Educational technologies are considered as a design that aims to improve the education process and it includes all types of theoretical and conceptual components. Utilization of new and alternative educational and instructional methods contributes to the progress of the teacher and the teaching process (Aşıgülü, 2017; Egüz, 2019).

4. Instructional Technologies: Educational and instructional technologies are often used to describe the same concept. Educational technologies are concerned with the reasons, while instructional technologies are concerned with the methodology (Jones, 1999). Instructional technologies entail the effort to change the environment of the individuals in the hope of a change in their behavior or other learning outcomes, either by using machines as supplemental tools or using no machines (Knezevich and Eye, 1970 cited by Kaya, 2006). Instructional technologies could also be described as the application of systematic and systemic

strategies and techniques adapted from behavioral and physical sciences and other resources to solve instructional (Gentry, 1987 cited by Kaya, 2006).

5. Computer-Assisted Instruction: Computer-assisted instruction (CAI) is the utilization of a computer to interact directly with the student to instruct the course content. Whether computers were effective in instruction has been discussed for a long period of time. Furthermore, several experimental studies were conducted to determine whether the computer really works in instruction. These studies demonstrated that the significance of computers increase in all instructional fields. In a meta-analysis conducted by Kullik et al., it was reported that computer-assisted instruction improved student access by 10-18% when compared to conventional instruction (Ergin, 1995). However, it was also reported that positive effect of computers was dependent on accurate determination of instructional requirements. Computer-assisted instruction is an instructional tool implemented in adequate learning environments. There are six types of software used in computer-assisted instruction. These include one-on-one instruction, practice and repetition, instructional games, modelling, simulation and problem-solving software (Kaya, 2006).

6. Computer Games: These are digital simulations that require digital media support, sometimes include animated graphics, run by eye and hand coordination of the players, including certain sub-disciplines, especially interactivity (Crawford, 1984 cited in Denizel, 2012). Today, computer games are one of the main means of entertainment for individuals, especially school-age children. As indicated by Brand, Knight, and Majewski (2003), the popularity of computer games increases, and this acceptance by the masses is due to the fact that games include realistic virtual environments, sound and video features, and they assign roles to players. Due to the increasing acceptance of games as a means of entertainment by individuals, the gaming world is considered within the entertainment industry, and the gaming industry became a giant. Gaming industry that produced million-dollar budget computer games, multi-user games that allow thousands of people to play within the same virtual environment, electronic game corporations that employ hundreds of experts is a prominent research topic today. Prensky (2001) reported that computer games could create a new learning culture and emphasized that this would better match student habits and interests.

7. Geographical Information Systems (GIS): It is a software system designed to collect geographic data associated with humans, locations and spaces in a database with real references to planetary coordinates, that could conduct various analyzes and display the results (Fitzpatrick and Maguire, 2000). GIS could also be considered as a computer-based tool developed to analyze and map objects and

events on the earth (Demirci, 2004). The concept has various definitions since the users work in different disciplines. The basic function of information systems is to facilitate decision-making process (Yomralıoğlu, 2000; Kapluhan, 2014). The difference between Geographic Information Systems and information systems is the fact that GIS includes location information in addition to attributes of different objects (Sağlam, Düzgün and Usul, 2004; Kapluhan, 2014). Geographic Information Systems is an information system created to collect, enter, store, query, conduct spatial analysis, display and printout spatial information (graphics and attributes) in a computer environment (Aranoff, 1991 cited by Kapluhan, 2014). While GIS was developed for computer-assisted merging of the maps in the early 1960s (Yomralioglu, 2000; Kapluhan, 2014), it became a technology that serves various purposes in several fields. In particular, the interest of individuals, institutions and organizations in global positioning information, rapid advances, and especially commercial expectations, various applications and ideas did not yet allow a standard definition of GIS. Geographic Information Systems is an information system that integrates the functions of collection, storage, process and presentation of graphical and non-graphical information collected in location-based observations in a holistic manner (Kapluhan, 2014).

8. Internet: The Internet is a constantly growing globally popular communications network that connects several computer systems. Internet is an abbreviation of "Interconnected set of networks." On the other hand, the Turkish Language Institution defined the Internet as "the international information communications network, General Network, which is the interconnection of computer networks without limitations and administration" (MEB, 2011). Internet communications network provides practical and economic communication facilities for individuals and organizations and great convenience in the fields of health, science and commerce. Thus, the Internet could be called a large library. The Internet basically aims to share information (MEB, 2011). Therefore, users could connect, read or copy information from any computer network connected to the Internet using their computer and send the information stored on their computer to other computer users based on the level of authorization. In addition to emphasizing the individual, the Internet led to collaboration, coproduction, sharing experiences, knowledge, personal knowledge and curiosity of large masses. The Internet has developed in a way that no one could have imagined, and provided an easy, inexpensive and fast environment that does not require many technical skills. Mobile technologies such as 3G and information technology advances provide Internet access to individuals at any time (MEB, 2011).

Resources

Alkan, C. (1998). Eğitim teknolojisi (Educational technology). Ankara: Anı Publishing.

Aranoff, S. (1989). "Geographical Information Systems: A Management Perspective", WDL Publications, Ottawa, Canada.

Aşıgülü, D.(2017). Okul yöneticilerinin eğitim sürecindeki teknoloji kabul durumları ve eğitim sürecine etkileri (Tecgnology acceptance of school administrators in the educational process and its effects on the education process). Trakya University, Institute of Social Sciences. Unpublished master's thesis. Edirne.

Barth, J.L.(1991). Elementary and junior high/middle school social studies curriculum, anctives and materials. Third Edition. Lanham: University Press of America, Inc.

Brand, J.E., Knight, S.J. and Majewski, J. (2003). The Diverse Worlds of Computer Games: A Content Analysis of Spaces, Populations, Styles and Narratives. First Level Up Digital Games Research Conference, University of Utrecht, The Netherland.

Crawford, C.(1984). The Art of Computer Game Design, McGraw-Hill/Osborne Media, Amerika.

Demirci, A. (2004). İlk ve ortaöğretim coğrafya eğitimi ve Coğrafi Bilgi Sistemleri: Fiziki coğrafya (deprem ve volkanlar) konusu ile ilgili CBS tabanlı örnek bir ders uygulaması [Primary and secondary geography education and geographical information systems: A GIS-based sample course application on physical geography (earthquakes and volcanoes)]. 3rd Geographical Information Systems IT Days Proceedings, Fatih University. 19, 171182, İstanbul.

Denizel, D.(2012). Sanatın yeni evresi olarak bilgisayar oyunları (Computer games as the new stage in arts). *Felsefe ve Sosyal Bilimler Dergisi,* 13(1), 107-143.

Doğanay, A.(2008). Çağdaş sosyal bilgiler anlayışı ışığında yeni sosyal bilgiler programının değerlendirilmesi (Evaluation of the new social studies curriculum with a contemporary social studies approach). Ç.*U. Institute of Social Sciences Journal*, 17(2), 77-96.

Egüz, Ş. (2019). Medya okuryazarlığı ve eğitiminde kullanılan teknolojik araç-gereç ve materyaller (Technological tools and materials used in media literacy and education). E. Koçoğlu and Ö. Akman (Eds.).*Medya Okuryazarlığı ve Eğitimi.* (ss.81-112). Ankara: Pegem Akademi.

Ergin, A.(1995). Öğretim teknolojisi iletişim (Instructional technology communications). Ankara: Pegem Publishing.

Fitzpatrick, C. and Maguire, D. J. (2000).GIS in schools: Infrastructure, methodology, and role, p. 6162, GIS: A sourcebook for schools, ed. D. R. Green, Taylor & Francis.

Gentry, C. G.(1987). Educational Technology: A question of meaning. Miller, E. E. ve M.L. Mosley (Ed.), Educational media and technology yearbook. Libraries Unlimited. Littleton, CO..

Hertzberg, H. W. (1981). Social studies reform 1880-1980. Boulder: Social Science Education Consortium, Inc.

Jones, B. W. (1999). A Differentiating Definition of Instructional Technology and Educational Technology. West Texas University. Texas. http://www.geocities.com/CapeCanaveral/Campus/7941/trmpprh.html.

Kabakçı, I. ve Odabaşı, H.F.(2004). Teknolojiyi kullanmak ve teknogerçekçi olabilmek (Technology use and being techno-realistic) . Sosyal Bilimler Dergisi, 1(1), 19-28.

Kapluhan, E.(2014). Coğrafi bilgi sistemleri'nin (cbs) coğrafya öğretiminde kullanımının önemi ve gerekliliği (The significance and requirement of geographical information systems (GIS) use in geography education). *Marmara Geography Journal,* 29 (1), 34-59.