

## Chapter 78

# Exploring the Notion of ‘Technology as a Public Good’: Emerging Characteristics and Trends of the Digital Divide in East Asian Education

**Sunnie Lee Watson**  
*Ball State University, USA*

**Thalia Mulvihill**  
*Ball State University, USA*

### ABSTRACT

*This chapter aims to explore the historical, sociological, and economic factors that engender inequities related to digital technologies in the East Asian educational context. By employing critical social theory perspectives, the chapter discusses and argues for the notion of “Technology as a Public Good” by examining the Chinese, Japanese and Korean societies’ digital divide. This chapter examines how East Asian societies are exhibiting similar yet different problems in providing equitable access to information communication technologies to the less advantaged due to previously existing social structures, and discusses the urgency of addressing these issues. Based on the analysis of the digital divide in the East Asian context, this chapter also proposes and argues for the notion of “technology as a public good” in public and educational policies for information communication technologies. Finally, the chapter invites policymakers, researchers and educators to explore a more active policy approach regarding the digital divide solution, and provides specific future research recommendations for ICT policies and policy implementation in digital divide solutions.*

DOI: 10.4018/978-1-4666-1852-7.ch078

## INTRODUCTION

The term digital divide, often referred to as “information gap” or “information inequality” has generated a great amount of policy and academic discussion. While it is important to note that the precise definition of digital divide varies by the context in which it is being used or the group of people discussing it, the meaning of digital divide includes the discrepancies in physical access to information communications technologies as well as the inequalities in resources and skills needed to effectively use digital information or participate in the digital society (Korean Ministry of Information and Communication, 2001; Seo, 2001; Cho, 2001). In other words, it is the unequal attainment of information and communications technology by some members of the society and the unequal acquisition of related skills.

When considering the digital divide, various researchers and policymakers often discuss a variety of contexts, including socioeconomic status, gender, race, age, region, or geography. These various discussions provide valuable insight in understanding the current state of digital inequity around the world. In this chapter, the authors aim to explore the historical, sociological, and economic factors that engender inequities related to digital technologies in the East Asian educational context. By employing critical social theory perspectives, the chapter discusses and argues for the notion of “Technology as a Public Good” by examining the Chinese, Japanese and Korean societies’ digital divides in education. The examination and analyses of these three societies’ digital divides, and the three countries’ different approaches to digital divide solutions will provide further understanding of the international expansion of digital inequity worldwide and the facilitation of bringing social justice through digital equity.

We begin by conceptualizing social inequity and the worldwide digital divide. We then examine the digital divide in three East Asian countries, China, Japan and South Korea, with special attention to

the historical and sociological characteristics of inequity. We conclude by presenting a series of questions and challenges regarding the notion of “technology as a public good” through a critical social theory perspective to technology policymakers, researchers and educators who work towards bringing technology to serve a better role in society.

## WORLDWIDE DIGITAL DIVIDE

### Digital Divide

The rapid distribution of the ICT (Information Communications Technology) across the population has led many to hypothesize about the potential effects of the new media on society at large. While many optimistic educators and information technologists have advocated for the potential promises of information technology to reduce inequalities in society, emphasizing the “leapfrogging” characteristic that will enable the disadvantaged to catch up (Negroponte, 1998), many others warn that the rapid and uneven spread of technology across the population will lead to increasing inequalities, advancing the situations of those who are already in privileged positions while disallowing opportunities for development to the underprivileged (Hargittai, 2003).

Over the past decade, researchers and policy makers have paid considerable attention to what parts of the population have access to ICT and what sort of effects these trends have on the society. Findings clearly state that ICT is not fulfilling its promise for positive impact; rather, it is leading to new divides and increasing inequalities in countries and communities (DiMaggio, Hargittai, Celeste & Shafer, 2004; Warschauer, 2002; 2004). Inequalities related to access and use of technology are now clearly a significant global public policy issue. In this chapter, we will explore the trends and characteristics of the digital divide in the East Asian context, which centers on the historical, sociological, and economic factors that engender inequities. South Korea, Japan and China are ex-

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/exploring-notion-technology-public-good/68519](http://www.igi-global.com/chapter/exploring-notion-technology-public-good/68519)

## Related Content

---

### Development of ICT Competency in Pre-Service Teacher Education

Valentina Dagiene (2011). *International Journal of Digital Literacy and Digital Competence* (pp. 1-10).  
[www.irma-international.org/article/development-ict-competency-pre-service/55112](http://www.irma-international.org/article/development-ict-competency-pre-service/55112)

### Ethical Use in the Teaching of ICT and Initial Teacher Training: A Preliminary Study on the Descriptors of the Observational Tools

Antonella Nuzzaci (2016). *International Journal of Digital Literacy and Digital Competence* (pp. 17-36).  
[www.irma-international.org/article/ethical-use-in-the-teaching-of-ict-and-initial-teacher-training/178546](http://www.irma-international.org/article/ethical-use-in-the-teaching-of-ict-and-initial-teacher-training/178546)

### The Convergence Culture of the Formal and Informal Interfaces in Education

Maria Annarumma, Riccardo Fragnito, Ines Tedescoand Luigi Vitale (2016). *International Journal of Digital Literacy and Digital Competence* (pp. 23-33).  
[www.irma-international.org/article/the-convergence-culture-of-the-formal-and-informal-interfaces-in-education/159865](http://www.irma-international.org/article/the-convergence-culture-of-the-formal-and-informal-interfaces-in-education/159865)

### Digital Cities: Towards Connected Citizens and Governance

Leonidas Anthopoulosand Panos Fitsilis (2013). *Digital Literacy: Concepts, Methodologies, Tools, and Applications* (pp. 541-557).  
[www.irma-international.org/chapter/digital-cities-towards-connected-citizens/68469](http://www.irma-international.org/chapter/digital-cities-towards-connected-citizens/68469)

### Formalized Informal Learning: ICT and Learning for the 21st Century

Karin Tweddell Levinsenand Birgitte Holm Sørensen (2018). *Information and Technology Literacy: Concepts, Methodologies, Tools, and Applications* (pp. 1928-1949).  
[www.irma-international.org/chapter/formalized-informal-learning/189031](http://www.irma-international.org/chapter/formalized-informal-learning/189031)