

# Digital Equity in Schools: An Overview of Current Trends

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## ABSTRACT

*Technology is often touted as a means for providing new opportunities for learning, economic development, and participation in digital-age citizenry—especially for those who have limited access to high-quality learning environments and who have historically been marginalized in decision-making processes. Unfortunately, these opportunities for advancement are inextricably linked to the possibility of continued disenfranchisement and oppression. Lack of access to technology—or an absence of informed guidance regarding its use—can actually magnify the inequities in students' education and further limit their opportunities. For these reasons, two of the most fundamental issues of cyber ethics in education are eliminating digital divides and promoting digital equity. In order to review the most recent trends in digital equity for elementary, secondary, and post-secondary education, this article analyzes 42 peer reviewed journal articles published in 2009-10 for trends in research and scholarly thought.*

*Keywords:* Cyber Ethics, Digital Divides, Digital Equity, Economic Development, Education, Technology

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## INTRODUCTION

Technology is often touted as a means for providing new opportunities for learning, economic development, and participation in digital-age citizenry—especially for those who have limited access to high-quality learning environments and who have historically been marginalized in decision-making processes. Unfortunately, these opportunities for advancement are inextricably linked to the possibility of continued disenfranchisement and oppression, as well (Gorski, 2009). Lack of access to educational technology—or an absence of informed guidance regarding its use—can actually magnify the inequities in students' educational experiences

and further limit their opportunities for employment and participation in governance (Kim, Lee, & Menon, 2009). For these reasons, two of the most fundamental issues of cyber ethics in education are eliminating digital divides and promoting digital equity.

In the context of education, digital divides are documented differences between learners who can take full advantage of available technologies and those who cannot. Digital equity occurs when all students have equal opportunity to benefit from modern information, communication, and productivity tools. For decades, researchers have explored the concepts of digital divides and digital equity from a variety of different methodological and theoretical perspectives (Yu, 2006). Their findings have helped define what inequities exist and actions it will take to overcome them. At times, this vein of

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research has influenced policy and prompted the creation of programs designed to improve access for all learners.

The purpose of this article is to review the most recent trends in digital equity for elementary, secondary, and post-secondary education. To identify these trends, the author analyzed peer-reviewed journal articles published from January 2009-May 2010 and identified by the key word terms “digital divide” or “digital equity” in the Educational Research in Circulation (ERIC) or the Professional Development Collection (PDC) databases. Since digital divide and equity issues span multiple disciplines, including medicine, law, criminal justice, political science, and many others, ERIC and PDC were used to identify publications most likely to be relevant to education. Funded by the United States (US) Department of Education, ERIC catalogues a wide variety of education journals from all over the world and includes over 1.3 million bibliographic records. Similarly, the PDC is a specialized collection of information specifically targeted to the needs and interests of professional educators.

The search yielded forty-two titles for analysis. Not all the titles are specifically related to educational settings, but the non-education studies included are indirectly related to the general social context in which students live and learn. Over half of the publications reviewed (27) are empirical research studies and the remaining are literature reviews, proposed theoretical or methodological frameworks, program descriptions, critiques of other published work, or general commentaries. In an effort to assess trends from an international perspective, the articles reviewed represent information from over 30 different countries. Five publications are *regional* in nature, exploring current conditions of technology access and use in East Africa, Europe, and the Middle East, for example. Seven publications are best described as having a *global, multinational*, or *general* focus applicable to many settings. The remaining 32 publications could best be described as situated in a particular *national* context, even though the contents of the publications are likely to be applicable and interesting to a broader audience. Over half of

these national titles are associated with the United States, but articles reviewed also include work from Australia, Chile, Germany, Great Britain, Korea, the Philippines, the Netherlands, Turkey, and Zambia, as well.

As a conceptual frame, the article presents an historical overview how scholars have previously defined and measured the dimensions of digital equity. This overview is followed by (1) a summary of the primary theoretical directions of the new research; (2) an analysis of how the recent work complements and extends the existing literature; and (3) a conclusion which summarizes findings and suggests directions for future research.

Based on the recent publication dates of materials reviewed and the inclusion of only peer-reviewed materials, this analysis should reveal credible and extremely current developments related to digital equity in education. These findings should be of interest to those who are seeking an introduction or an update to issues related to digital equity and to those preparing to conduct research in this important area. While there is certainly an over-representation of publications from the US, the beginning effort to synthesize international scholarship, provides a more global perspective for readers.

## THE DIMENSIONS OF DIGITAL EQUITY: A HISTORICAL OVERVIEW

Scholars agree that digital equity is a complex and evolving topic (van Dijk & Hacker, 2003). This is evidenced in the many ways researchers have conceptualized their inquiry. To date, studies of digital equity have addressed the following dimensions:

1. School access and use
2. Essential conditions for effective technology integration
3. Beyond-school access and use
4. Beyond-school knowledge networks
5. Cultural influences on technology literacy development and use patterns

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