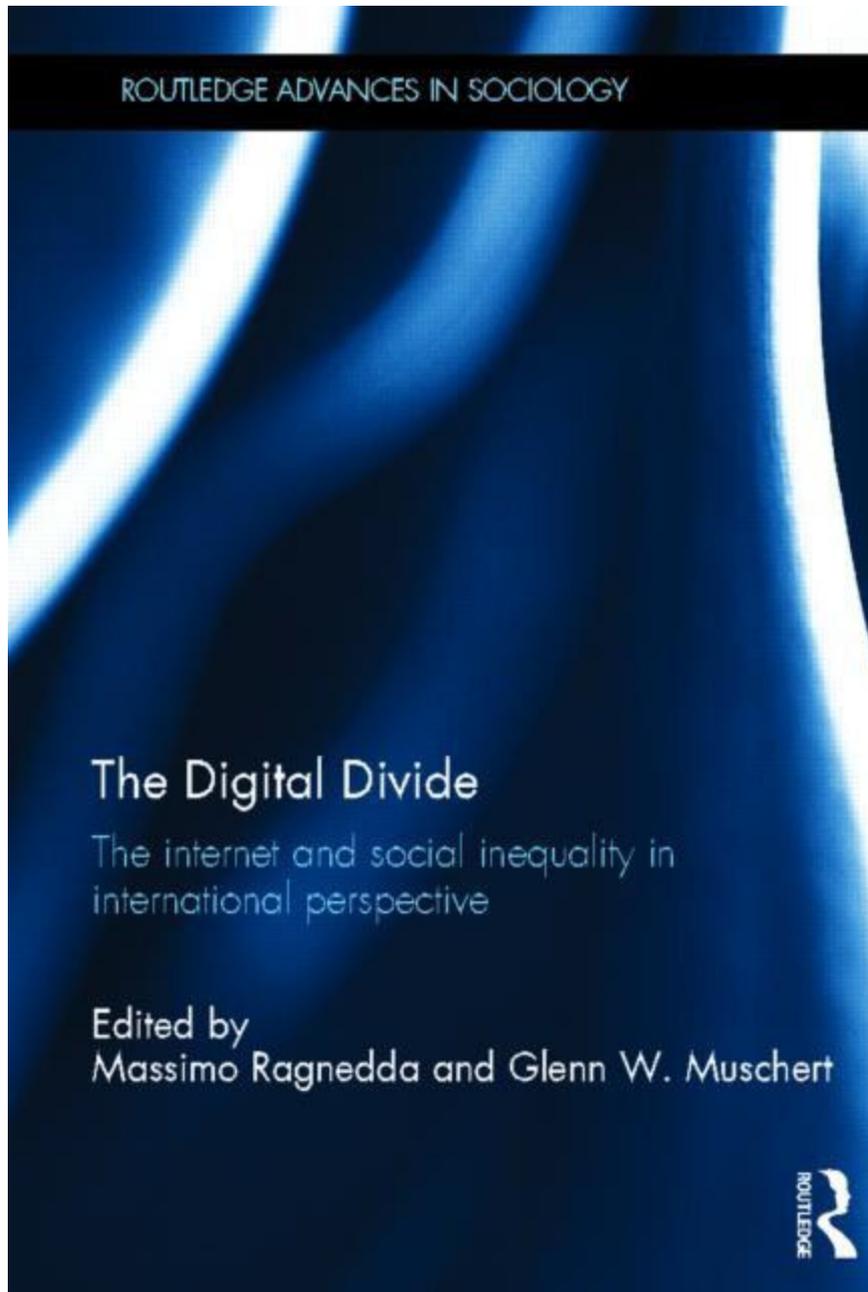


**The Digital Divide.**

**The Internet and Social Inequality in International Perspective**

**Edited by Massimo Ragnedda and Glenn W. Muschert**



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## PREFACE

This book is about connecting the fascinating and rapidly-evolving body of multidisciplinary work in Internet studies and the network society with the comparatively long-established body of work in the sociology of stratification. In particular, the goal of the book is to connect studies of digital divides (that is, unequal access to- and usage of the digital sphere) with sociological traditions for understanding social stratification (including inequalities in wealth, moral authority, social class, prestige, cultural capital, and political influence). Certainly, numerous sociologists have an on-going contribution to the study of digital divides (indeed, many of them appear in this volume), and we certainly respect the work of the seminal academic figures in the field of digital divides. However, what such studies at times seemed to lack was a theoretical perspective which is strongly tied to classical (and resulting) traditions in the sociology of stratification.

The book emerged from a scholarly discussion between the editors (sociologists who study, among other things, mass media, and social stratification), as to the relative under-emphasis of classical theoretical perspectives among digital divide studies. Of course, many such studies come from scholars outside sociology, in fields such as informatics, mass communications, and information technology; however, it is our sense that sociologists have something uniquely important to contribute to studies of inequality in the network society. Given the foundational role of theories of stratification in the development of sociology from the 19<sup>th</sup> Century onwards, we were sure that sociology should contribute a strong voice to on-going debates about how digital divides were articulated, and in some cases attenuated or exacerbated, worldwide.

Around the same that we (the editors) were wondering at the relative underrepresentation of sociologists in this debate concerning the emergent form(s) of inequality in the digital sphere, there appeared a text which applied the classical schools of sociology (Durkheimian, Marxist, and Weberian) to digital inequality in the United States: James Witte & Susan Mannon's (2010) *The Internet and Social Inequalities*. Indeed, the Witte and Mannon volume served as an approximate point of departure for the volume, as the reading of their volume helped to solidify our sense that the theoretical and empirical approaches of classical sociology had much to say in regards to inequality in the digital sphere. While Witte and Mannon (2010) examined the relevance of this approach to studying digital divides in the United States, another contribution of the volume was that it laid a rough theoretical and empirical groundwork for the application of the approach to other countries or regions of the world. This volume is the outgrowth of our attempt to see an international and comparative examination of digital divides in a variety of settings across the world.

Each of the contributors to this volume was asked to consider Witte and Mannon's (2010) book as a point of departure, and then to add their own interpretations and perspectives to the discussion of digital divides observed within a specific national or regional context. There were very few stipulations placed upon the contributors, as these would not have led to fruitful scholarly exploration and discourse. Thus, contributors were free to select empirical data and one or more theoretical tradition within sociology around which they would center their discussion. The only stipulations we set were that each chapter needed a conceptual connection to a classical tradition of stratification in sociology, and that each chapter should be at least in some way grounded to empirical evidence. Such a loose set of stipulations meant that contributors were free to decide their own conceptual and empirical/analytical strategies, and allowed contributors to be creative and free in their contributions. However, what was gained in the setting of general parameters for contribution is that each of the

chapters in this volume honors two crucial aspects of sociology: first, that the discipline is based on the foundational work of its early theorists, and second, that sociology is an empirical discipline. What was also gained is the ability to infer comparisons among the nations and regions studied the various chapters, as such comparisons can emerge along both the theoretical lines and the empirical approaches employed in the various chapters.

This volume, the outcome of our endeavor, reflects a sociological approach in its analysis of the international connection between the related issues of the social inequalities, and the social consequences of the new digital discrimination in use of new communications technologies. Our volume contributes to the literature by collecting contributions from many different areas of the world and by publishing them in one location. Seeing country/region studies side by side will allow readers to understand the similarities and differences in the digital divide phenomena observed in the three categories of national settings, viewed via a unified lens. In connecting information about these different social and economic areas of the world, previously poorly connected (yet intimately related) aspects of the digital divide can become clear. Our volume integrates the constructionist work on digital divide, policy analysis of new digital discrimination policies, and finally offers an implied forward-looking (and perhaps proscriptive) view of how social scientists and policy analysts can effectively understand and respond to varying forms of new digital inequalities. With expert contributors from a variety of areas of the world and social science disciplines, this book turns a critical eye to the current state of the digital divide and new social inequality practices (and policies), while exploring the lessons learned from successes and failures in international and comparative perspectives. We anticipate that the comparative examination of these dynamics will be helpful to clarify the mechanisms and consequences of the digital divide in a variety of settings.

## INTRODUCTION

Massimo Ragnedda (Northumbria University)

Glenn W. Muschert (Miami University)

Defined as stratification in the access and use of the Internet, the so-called digital divide is inevitably tied with the concept of social inequalities (van Dijk, 2005), a classic sociological concept. Strangely, the discipline of sociology has been slow to contribute to the debate on the Internet and social inequalities. This is surprising, because sociology has a long and fruitful tradition of studies in aspects of social inequalities, and because sociology has contributed to the debates about stratification more than any other discipline. Indeed, even if social stratification is a crucial part of all human organization ever observed, it was in the writings of the “fathers of sociology” such as Marx, Weber, and Durkheim, that the study of this topic became more systematic, articulated using concepts that remain with us to this day. It is inevitable therefore, from a sociological point of view, to study the digital divide using these conceptual and analytical tools. Despite this, the phenomenon of the digital divide (a fundamental aspect of social inequity in the information age) has received less sociological attention than it should (though this is changing – see e.g., DiMaggio et al., [2001]; Witte & Mannon [2009]; Stern [2010]), at least using the traditions within sociology.

In this volume, the analysis of the digital divide is driven by the sociological perspective(s) and is intended to understand the nature of social inequalities and the new digital discrimination/virtual inequality (Mossberger et al., 2003). However, the sociological dimensions of the digital divide is also explored in comparative perspective, as the reader encounters studies focusing on stratification in the digital sphere, as explored in a variety of

national and cultural settings. We are interested in the social consequences of Internet use (Katz & Rice, 2002) and how people's online activities are influenced by socioeconomic background (Zillien & Hargittai, 2009), but also in a comparative global context.

The digital divide is a complex and dynamic phenomenon (van Dijk & Hacker, 2003) and in its simplistic sense, conceptualized as a form of stratification exhibiting itself in unequal access and use of the Internet. This concept is typically measured via access to the Internet (vs. non-access), number of sites at which the Internet is accessed, users' skill at using the Internet, amount of time spent online, and the variety of activities carried digitally. In its many forms, the digital divide has more commonly been conceptualized (and measured) as the differences between those who have access to the web versus those who do not. Clearly, academic research should go beyond just studying access (Castells, 2001; Stanley, 2003) because such a binary classification limits digital divide research (Hargittai 2003). Certainly those who are completely excluded are at one extreme end of the digital divide, however even among those with web access, there are nuances to the digital divide, ones which add finer gradients to the discussion. Today the biggest concern is not always concerning access, but the divide among information "have's" and "have-not's," resulting from the ways in which people use the Internet (Dobson & Willinsky, 2009; Eshet & Aviram, 2006; Eshet-Alkalai & Chajut, 2008; Hargittai, 2005, 2009; Jenkins et al., 2006; Livingstone & Helsper, 2010; Perez Torenó, 2004). In other words, differences in digital proficiencies create new inequalities (Gui & Argentin, 2011) and are the main focus of studies of the so-called second-level digital divide (Hargittai, 2002; van Deursen & van Dijk, 2010).

One core theme in the book is to explain how online activities vary according to crucial sociological dimensions, including gender (Bimber, 2000; DiMaggio et al., 2001; Clark &

Gorski 2002b; Cooper & Weaver, 2003; Losh, 2003; Hiroshi & Zavodny, 2003; Cooper 2006), age/generation (Loges & Joo-Young 2001; Soker, 2005; Palfrey & Gasser, 2008; van Dijk & Hargittai, 2010), education (Clark et al., 2001; Attewell, 2001; Clark & Gorski 2002a), income and social class/caste (Bucy, 2000; Zillien & Hargittai, 2009), countries (Chen & Wellman, 2004; Chinn & Fairlie, 2006), employment, and race/ethnicity (Hoffman & Novak, 2001; Fairlie, 2003; Fairlie, 2004); and, further, to explain the practical consequences of these differences, in terms of social status, power or profit. Where else to find an arsenal of academic concepts to address such dimensions of the digital divide than in sociology? Indeed, a sociological perspective is needed and our goal has been to tie the study of digital divides to the concepts of social inequality and stratification as understood within classical theories of sociology. Stratification studies proceed from a multiplicity of approaches including perspectives of class inequality (Scott, 2000) or other forms of material inequality (Crompton, 1998). For social scientists who study digital divides, it is vital to reframe the crucial concepts as social stratification. In light of social changes and emergent social movements (Therborn, 2000), it can be informative to reframe contemporary studies of the digital sphere within classical perspectives of social stratification, as studied by Marx, Weber and Durkheim.

The Marxist-derived or conflict perspective focuses on the economic aspects of social stratification, and clearly this perspective (and its derivatives) have are most strongly represented in the field of digital divide studies. Classically, Marx describes the ownership of property as the basis of class divisions, and the social stratification is inevitable tied with economic class (1976). The scholars influenced by the Marxist approach to social stratification tend to emphasize the sphere of production in which the ruling class (or bourgeois) derives its power from its ownership and control of the forces of production.

According to some authors, the Marxist approach is still important in the digital age, particularly after the world economic crisis (Žižek, 2010). Various scholars weigh in on the connection: Graham talks about a digital dark ages in which the knowledge economy is seen as alienation (2001). Lauer (2008) argues about the process of alienation in the information economy, while Rey (2012) explains how the social media users are subject to levels of exploitation relatively consistent with industrial capitalism, which is a new iteration of alienation. Similarly, Fuchs in various studies has argued that online advertising is a mechanism by which corporations largely take advantage of Web 2.0 users (Fuchs, 2009, 2010, 2011). Vincent Mosco argued that a Marxist theory of Communications should “demonstrate how communication and culture are material practices, how labor and language are mutually constituted, and how communication and information are dialectical instances of the same social activity, the social construction of meaning” (2009, 44). Furthermore a special issue of *tripleC – Open Access Journal for a Global Sustainable Information Society* edited by Fuchs and Mosco (2012) on “Marx is Back: The Importance of Marxist Theory and Research for Critical Communication Studies Today” shows the enduring importance of a Marxist approach for Critical Communication Studies. This approach is crucial in order to understand the formation of dominant groups in the communications sector and the capital accumulation dynamics that reproduce social inequalities. The digital divide could be seen, in this perspective, as a way in which the social inequalities are (re)produced (not to mention consumed) in the digital age using the new technologies of communication

The Weberian perspective offers the basis for integrating what have been considered, up to now, divergent approaches to stratification studies (Scott, 1996). Social stratification in a Weberian approach comprises three independent factors, each one with its own hierarchy and therefore role in constituting social ranking: economic class, social status (prestige), and

political power (party) (Weber 1947). The main element of his model of social structure is the power, and this is articulated differently than in Marx's work, as class is based on the economic order, which rather than being the totality of social life, is one aspect of life, albeit an important one. The interaction among the three aspects of stratification constitutes the way in which social hierarchies come about. Each of these elements relates to the digital divide, because access to new technologies of communication, digital skills/literacy, and capacity to create income throughout the new technologies all contribute to increase political power, social prestige, and economic influence. The digital divide, according to this approach, creates social inequalities in a new media society, because it influences social status by giving increased prestige to those in positions to use new technologies of communication, mastering new specializations/skills, and increasing the ability of digital literati to create new opportunities to realize their goals in social, political, or economic spheres. In a number of studies in this volume, we observe that the Internet is a powerful tool for indicating and maintaining social status, and such conclusions can be immediately reflective of the Weberian tradition. For example, there is a clear link emerges between education (a marker of prestige and economic influence) and the ability to transformation of knowledge (via digital fluency) into social, economic, or political influence.

Finally, the Durkheimian perspective focuses on the importance of the division of labor as the social mechanism that reproduces particular types of social bonds while suppressing others. Specifically Durkheim (1984) conceived two distinct types of inequalities: external inequality (imposed on the individual by the social circumstances of birth) and internal inequality (inequalities based on achieved status or individual talent). Both of those inequalities recur in different ways in the digital age. Durkheim also wrote about the external regulation of social behaviors, via external forces of social control, and the individual's internal integration of a

society's norms and values. Thus, social solidarity reflected in the collective social consciousness was a crucial element for any society, one that echoes the underlying moral order which undergirds social coherence. Of course, education was a crucial aspect of the (re)production of the moral order in any society (Durkheim, 1956, 1961), and indeed we find in our studies that the use of ICTs in education is a focus in many settings around the world. The role of digital divides in new forms of education (including lifelong learning) cannot be underestimated, and clearly, these connect readily with the Durkheimian tradition.

Each of the contributing authors have been invited to discuss the phenomenon of the digital divide as related to their chosen countries (or regions) of expertise, using one or more of these sociological perspectives to illustrate the dimensions of social inequalities in digital spheres. Certainly, sociologists are adept at examining inequalities as they exist in the world at large, yet there is much to be learned about how such inequalities exist in the digital world. For example, do the traditional inequalities simply replicate themselves in the digital sphere, or does the digital divide operate under its own dynamics? Similarly, it is unclear whether the digital divide simply exacerbates traditional inequalities, or whether it also includes counter-trends that might mitigate traditional inequalities, even while forming new forms of stratification. Finally, it is unclear whether inequalities in the digital world translate culturally, or whether they manifest themselves in culturally-specific ways. Such comparative perspectives have also been underemphasized in the scholarly discourse about the digital divide, and this under emphasis leads to gaps in our understanding of the digital divide, as social inequalities may vary widely from country to country. This volume is a first step at addressing this gap.

### **Organization of the Book**

In *The Internet and Social Inequalities*, Witte and Mannon (2010) present a theoretical perspective for understanding the digital divide, and the contributors to this volume have used Witte and Mannon's theoretical and empirical approaches as points of departure for their own examinations of the digital divide in their respective settings. From this unified perspective, the book proceeds with an introductory section, a theoretical section to provide the conceptual framework for the volume, and five region-focused sections: the first including case studies examining the digital divide in highly modernized countries (EU, USA, and Japan), the second in rapidly emerging world powers (Brazil, Russia, India, and China), the third Eastern European countries (Romania, Estonia, and Serbia), the fourth examining Middle Eastern countries (Israel, Egypt, and Iran), and the fifth focusing on less developed countries, especially areas that have received little study thus far (Latin America, the Former Soviet Republics of Central Asia, countries in East Asia, and Niger).

### **Theoretical Section**

The first part of this book provides a theoretical starting point for the volume, by exploring the digital divide as academic concepts within stratified societies. In the first chapter entitled "The Reproduction and Reconfiguration of Inequality: Differentiation and Class, Status, and Power in the Dynamics of Digital Divides," Bridgette Wessels integrates the study of digital divides with the sociology of stratification from the founding fathers of sociology, who in the 19<sup>th</sup> and early 20<sup>th</sup> centuries grappled with the revolutionary changes of industrialization. Although in different ways, she argues that class, status and power are key factors in people's ability to be included in a networked society.

In the second chapter entitled “A Theory of the Digital Divide” Jan van Dijk describes the way in which four types of access to digital media are distributed among people holding different social positions and/or personal characteristics. Here, the digital divide is analyzed in the context of the network society in which structural inequality is potentially growing between the information elite, a participating majority, and those who are excluded, as these three segments of society have differential opportunities for connecting to the network.

### **Section 1: Highly Developed Nations and Regions**

The first section concentrates on digital divides in highly developed nations and regions, specifically the EU, US, and Japan. In the opening chapter of Section 1, titled “The Digital Divide in Europe,” Nicole Zillien and Mirko Marr base their analysis on the countries of the European Union (with particular focus on Germany) showing how high status users succeed in utilizing the Internet to increase existing resources supporting the notion that the digital divide is an important new dimension of social inequality.

In the fourth chapter, titled “Tracking the Internet and Social Inequalities in the U.S. through 2010,” James Witte, Marissa Kiss, and Randy Lynn considers whether the gaps in Internet use according to income and education have persisted, increased, or decreased as widely-used Internet applications and devices have become ubiquitous. In the concluding chapter of section 1, “Missing in the Midst of Abundance: The Case of Broadband Adoption in Japan,” Mito Akiyoshi, Motohiro Tsuchiya, and Takako Sano discuss empirically and theoretically the digital divide as it exhibits itself in Japan, using high quality dataset made available by the Ministry of International Affairs and Communications. It specifically focuses on the

issues concerning broadband and mobile Internet access and user and examines what demographic and social-economic factors suppress the adoption of broadband technologies.

## **Section 2: Rapidly Developing Large Nations – the BRIC Nations**

In this section, the digital divide is analyzed in the rapidly emerging large nations, the so-called BRIC (Brazil, Russia, India and China). In particular, in the first chapter of this section titled “The Digital Divide in Brazil: Conceptual, Research and Policy Challenges,” Bernardo Sorj examines how the various level of access to products, services, and benefits of new information and communication technologies affects different segments of the Brazilian population. This case exemplifies the general argument that, from a policy perspective, the struggle for digital inclusion is a struggle against time. In the second chapter of this section, “Digitizing Russia: Uneven Pace of Progress toward Internet Access Equality,” Inna F. Deviatko addresses major dimensions of Internet-related inequalities in contemporary Russia, including relevant regional, urban/rural, income, gender, education and age-related predictive variables commonly used in order to operationalize differences in socioeconomic positions of individuals and families and, correspondingly, in their access to Internet. The analysis is based on multiple data sources – from 2007-2010 Russian Federal State Statistics Service Household Budget Survey data, to Public Opinion Research Foundation (FOM) Internet Use Survey (2002-2011), and data other opinion and market research data on Internet coverage.

In the eighth chapter, P. Vigneswara Ilavarasan, in his chapter entitled “Digital Divide in India: Inferences from the Information and Communication Technology Workforce,” uses indicators delineated by the International Telecommunications Union (ITU) on core information and communication technology (ICT) indicators (2010) and by the Organization

for Economic Co-operation and Development (OECD) (2011) to measure digital inequalities. The chapter also compares the status in 1991 when the national economy was opened for liberalization, providing possible reasons for a shrinking divide in the last two decades. Finally, in the last chapter of this section, Shu-Fen Tseng and Yu-Ching You examine the first- and second- order digital divides in newly industrialized countries (NICs) such as Hong Kong and Taiwan, and the rapidly developing economy of China. These are compared and tested for the normalization/stratification hypothesis of Internet penetration. In their chapter entitled “Digital Divide in Asia: The Barriers of First Order and Second Order Digital Divide,” the continuous expansion of ICTs is addressed, and this analyses reveals new disparities, specifically in the second order digital divide - inequality in ICT usage.

### **Section 3: Eastern Europe**

In this section, the analyses of the digital divide are oriented to understand how and if the digital divide is reinforcing or reducing the social inequalities in the former Communist areas, with coverage of Serbia, Romania, Hungary, Poland, Bulgaria, and Estonia. This section opens with a chapter titled “The Internet and Digital Divide in South Eastern Europe: Connectivity Does Not End the Digital Divide, Skills Do” in which Danica Radovanovic explores the social inequalities not only in the context of technological infrastructure, but examines issues such as literacies (information, digital, media, and network), online social networks, knowledge gaps, and collaborative/non-collaborative practices. The fundamental concept of social stratification is examined from socio-technological and educational perspectives.

Next, Monica Barbovschi and Bianca Fizeşan, present a chapter built on the data from the EU Kids Online II project. This chapter entitled “Closing the Gap, Are We There Yet?

Reflections on the Persistence of Second-Level Digital Divide among Adolescents in Central and Eastern Europe” investigates the differences in digital competencies along the lines of socio-economical dimensions in four countries in the Central and Eastern European region: Romania, Hungary, Bulgaria and Poland. The authors utilize a conflict perspective which emphasizes how Internet use, understood as a package knowledge and skills, plays an important role in maintaining inequalities.

In the final chapter of this section, titled “Behind the Slogan of ‘e-State; Digital Stratification in Estonia,” Veronika Kalmus, Kairi Talves and Pille Pruulmann-Vengerfeldt demonstrate the shift in the literature to exploring “digital inclusion” and “digital stratification,” where qualitative parameters of inclusion/exclusion and ICT use matter. The authors use empirical data from several nationwide quantitative studies carried out in Estonia – a “new” EU member state whose success in information society development is internationally recognized.

#### **Section 4: The Middle East**

In this section the authors examine the digital divide in the Middle East region. We have invited scholars from Egypt, Israel, and Iran with the aim of covering these three important countries: the first one after the revolt that culminated with the resignation of Hosni Mubarak, the second chapter that analyses the digital divide in Israel, and finally the digital divide is examined in the demographically young (about 70 percent of Iran’s population is under the age of 30) and large country (with a population of 70 million) of Iran.

In the first chapter of this section titled “Digitally Divided We Stand: The Contribution of Digital Media to the Arab Spring,” David M. Farris presents new data which suggests access

to the Internet is still dependent on income and country across the entirety of the Arab world. This inequality undermines the egalitarian potential of online public spheres, while simultaneously empowering a set of actors who are best positioned to take advantage of their privileged access. In Egypt, a group of young, tech-savvy urban elites used the power of digital activism to harness long-simmering resentment against Egyptian state practices. This online movement culminated in the resignation of Hosni Mubarak and the movement of the country toward more democratic and pluralist rule. Farris explains how digital inequalities both at the level of access and at the level of substantive input structured the Egyptian digital activist movement, empowered some Egyptians, and marginalized the voices of other important actors like organized labor.

In the second chapter of this section, “Explaining Digital Inequalities in Israel: Juxtaposing the Conflict and Cultural Perspectives,” Gustavo Mesch, Ilan Talmud, and Tanya Kolovov analyze the rapid expansion of Internet adoption and its use, often associated with the formation of social networks, the accumulation of social capital, and increasing wages. Thus, a lack of Internet access seems to reflect other social inequalities, leading to inequality amplification. The authors investigated gaps over time in access and use of the Internet in Israel, moving from the central assumption that in deeply divided societies where there is a partial, but significant, overlap between ethnicity and the occupational structure, disadvantaged minorities lack digital access, as they are concentrated in occupations that are not exposed to computers and the Internet.

In the final chapter of this section, Hamid Abdollahyan, Mehdi Semati, and Mohammad Ahmadi examine dimensions of digital divide in Iran with an emphasis on secondary digital divide. This chapter, titled “An Analysis of the Second-Level Digital Divide in Iran: A Case

Study of University of Tehran's Undergraduate Students,” is structured around two major parts. First, the authors review and analyze data about second-level digital divide in Iran and they discuss the historical turn in digital divide studies that has been diverted from studying technology haves and have-nots towards studying a skilled-based divide among different groups. Then, the authors elaborate their digital literacy survey among undergraduate students at the University of Tehran, offering an argument as to why they believe second-level digital divide is an issue in Iran.

### **Section 5: Under-Studied Countries and Regions**

For the final section of the volume, we have invited scholars to cover some of the underrepresented and under-studied areas of the world. Naturally it is difficult to cover all the part in the world, but we have tried to offer an international perspective giving space also to the digital divide in Latin American, in the Former Soviet Republics in Central Asia, in East Asia, and finally in Sub-Saharan Africa. The section opens with a chapter that explores the process by which ICT are integrated and used in Latin America, with an approach that views ICT as instruments for addressing the development needs of the region, paying attention to the risks inherent in the process. Daniela Trucco Horwitz, in her chapter “The Digital Divide in the Latin American Context,” states that this is one of the most unequal regions of the world and the mass dissemination of ICT could be generating new and rapidly growing forms of stratification. In Latin America, there are different types and levels of digital divides that operate simultaneously. The access gap, which is still substantial, is compounded by a second gap of use and appropriation. The analysis uses empirical data collected through international household surveys and through international educational assessment tests.

The chapter about the Digital Divide in the Former Soviet Republics of Central Asia is written by Barney Warf and is entitled “The Central Asian Digital Divide.” In this chapter, the author argues that despite their evident inefficiencies, publicly-owned or regulated telecommunications systems assured some degree of universal access to telephone systems and the Internet. Deregulation and privatization, however, allow firms to “cherry pick” the most profitable customers and service areas and ignore lower income groups and regions such as rural places. The chapter opens by drawing upon the U.S. and European experiences, and then proceeds to summarize how policy measures affect the digital divide in selected parts of the developing world.

In the third chapter of this section, titled “The Double Digital Divide and Social Inequality in Asia: Comparative Research on Internet Cafes in Taiwan, Singapore, Thailand, and the Philippines,” examines the digital divide in the East Asian context. Hirata Tomohisa, using statistical data provided by the International Telecommunication Union, states that there is a significant difference in the proportion of households with the Internet in Asia. In this chapter, this phenomenon in Asia is designated as “the double digital divide,” which indicates both the digital divide within each Asian country and that across the whole of Asia. The author discuss it from the perspective integrating the class theory in Marxism and the cultural theory in Weberian socio-economics, drawing on extensive ethnographic fieldwork and interviews conducted at Internet cafes which provide relatively poor people with the Internet and personal computers in Asian countries.

In the final chapter of this section and indeed of the volume as a whole, Gado Alzouma fills a void in the literature caused by the fact that African countries are most commonly studied in relation to more developed countries, rather than as sites of study themselves. Indeed, only a

few of them have so far analyzed how the use of technology relates to economic standing, prestige acquisition and power relations, the three dimensions of inequality and social stratification identified by Weber. For this reason in this chapter titled “Dimensions of the Mobile Divide in Niger” the author explores the unequal adoption, appropriation and use of computers in the country. Alzouma shows how access to computers, computer ownership, and Internet use are stratified across the West African country. The paper is based on a Weberian perspective and uses Bourdieu’s field theory, analyzing data drawn from fieldwork and semi-structured interviews carried out in the capital city, Niamey. Interview data are supplemented using various sources such as statistics from the International Telecommunication Union (ITU), from the Government of Niger and from various studies and surveys concerning access to ICTs in Niger.

Finally, in addition to these nineteen chapters, Sascha Meinrath, James Losey, and Ben Lennett, (director and fellows with the Open Technology Institute at the New America Foundation), contribute a brief Afterword titled “Internet Freedom, Nuanced Digital Divides, and the Internet Craftsman.” They start by reminding us that “communications is a fundamental human right is beginning to understand the key role that the Internet plays.” However, rather than focus on the benefits of broadband and Internet connectivity, the authors address their discussion on two significant dilemmas that have receive less attention from policy maker and commentators. First, the challenges faced by the unconnected and, second, that all connectivity is not created equal. Indeed, the authors argue that “in the Internet age, which technologies and devices you use to connect increasingly determine your online opportunities.” These different opportunities are at the bases of the new digital and social inequalities in the Internet age.

Overall, the nineteen chapters in this book provide an interwoven analysis of the digital divide in relation with the social stratification. Although some authors move in independent directions (whether methodologically or theoretically), there are many areas of overlap, providing room for distinctions and/or connections across countries, cultures, and regions. The authors highlight the processes that bring social inequalities knowledge societies, and they offer a way forward toward a comprehensive approach to the digital divide around the world. Ultimately, they remind us how the foundations laid by the founding fathers of sociology are extremely important as starting points to understand how the Internet is disseminated and used and that they are still relevant, even if not exhaustive, to understand the current critical issue of stratification in the digital sphere.

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