

The Digital Divide “Second Generation” and Its Impact on Social Mobility in the Networked Society

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Abstract

This article examines the “second-generation” digital divide and its implications for social mobility within the networked society. While earlier discussions of the digital divide focused primarily on access to information and communication technologies, the second-generation divide emphasizes disparities in digital skills, usage patterns, and the capacity to convert digital engagement into meaningful social and economic advantages. The study explores how these inequalities shape opportunities for education, employment, civic participation, and upward social mobility. It argues that unequal digital competencies reinforce existing social stratification rather than reducing it, thereby producing new forms of exclusion within digitally mediated environments. The article highlights the structural and socio-cultural dimensions of digital inequality and underscores its impact on the reproduction of social hierarchies in contemporary societies.

Keywords: Digital divide; second-generation divide; social mobility; network society; digital skills; social inequality; digital inclusion; information society.

Introduction

The rapid expansion of digital technologies has fundamentally transformed the structure and functioning of contemporary societies. With the rise of the internet, mobile communication, and digital platforms, social interactions, economic transactions, educational processes, and political participation have become increasingly mediated by digital systems. This transformation has given rise to what is commonly referred to as the “network society,” a form of social organization in which information flows and digital connectivity play a central role in shaping opportunities and social relations.

Within this context, the concept of the digital divide initially emerged to describe inequalities in access to information and communication technologies. Early interpretations of this divide focused primarily on the gap between individuals, groups, and regions that have physical access to digital infrastructure and those who do not. However, as digital technologies became more widespread, it became evident that access alone does not fully explain the persistence of inequality in digital environments. Even when individuals share similar levels of access to

technology, significant differences remain in how effectively they use digital tools and the benefits they derive from them.

This realization has led to the development of the concept of the “second-generation digital divide,” which shifts attention from access-based inequalities to disparities in digital skills, competencies, and usage outcomes. Unlike the first-generation divide, which is largely material and infrastructural, the second-generation divide is deeply social and cultural. It concerns the ability of individuals not only to use digital technologies but also to critically navigate information, produce content, participate in digital networks, and convert digital engagement into educational, professional, and social advantages.

The importance of this distinction becomes particularly evident when examining its relationship with social mobility. Social mobility refers to the capacity of individuals or groups to move within the social hierarchy, whether upward or downward, based on factors such as education, income, occupation, and social capital. In contemporary societies, digital competencies have become increasingly linked to these dimensions. Individuals with advanced digital skills are better positioned to access quality education, compete in the labor market, build professional networks, and participate in civic life. Conversely, those lacking such competencies risk being excluded from key opportunities that shape social advancement.

Therefore, the second-generation digital divide does not merely represent a technological gap; it reflects deeper structural inequalities embedded in education systems, labor markets, and socio-economic conditions. It contributes to the reproduction of inequality by reinforcing existing advantages among already privileged groups while limiting the upward mobility of disadvantaged populations. In this sense, digital inequality becomes a new mechanism through which social stratification is maintained in the networked society.

This article aims to analyze the relationship between the second-generation digital divide and social mobility by highlighting how disparities in digital skills and usage patterns influence individuals’ life chances. It also seeks to explore the broader social consequences of these inequalities, particularly in terms of access to opportunities and participation in the digital public sphere.

1. The Conceptual Evolution of the Digital Divide

The concept of the digital divide has emerged as one of the most significant analytical frameworks for understanding inequality in the digital age. Initially, it was developed to describe disparities in access to information and communication technologies (ICTs), particularly during the early expansion of the internet. At that stage, the divide was primarily understood as a binary distinction between those who have access to digital technologies and those who are excluded from them. This first-generation perspective emphasized material conditions such as infrastructure, connectivity, and affordability.

In this early formulation, the central concern of researchers and policymakers was the unequal distribution of technological resources across different social groups and geographical regions. The assumption was that providing access to computers, internet connections, and digital devices would automatically reduce inequality and promote social inclusion. As a result,

policies focused heavily on expanding infrastructure and improving technological penetration rates, especially in developing regions and marginalized communities.

However, as digital technologies became more widespread, scholars began to question the adequacy of an access-based understanding of inequality. They observed that even when access is available, individuals do not necessarily benefit equally from digital technologies. This observation marked a turning point in the conceptualization of the digital divide, leading to the emergence of more complex analytical approaches that go beyond mere connectivity.

The second phase of this conceptual evolution shifted attention toward usage patterns and digital engagement. Researchers began to distinguish between different forms of digital participation, recognizing that not all users interact with technology in the same way. Some individuals use digital tools actively for learning, production, and communication, while others remain passive consumers of online content. This shift highlighted the importance of examining how technology is used rather than simply whether it is available.

Within this framework, the concept of digital literacy became central. Digital literacy refers to the ability to effectively locate, evaluate, create, and communicate information using digital technologies. It includes both technical skills and cognitive abilities, such as critical thinking and problem-solving. The growing emphasis on digital literacy marked a significant expansion of the digital divide concept, transforming it into a multidimensional phenomenon.

This evolution is also closely linked to broader theoretical debates on the information society. In such societies, information becomes a key resource, and knowledge production plays a central role in economic and social development. Inequality is therefore no longer defined solely in terms of income or material wealth but also in terms of access to information and the ability to process it effectively.

Similarly, the theory of the network society further deepens this analysis by emphasizing the structural importance of digital networks in shaping social relations. In this context, power and opportunity are distributed through networks rather than traditional hierarchical institutions. Individuals who are well integrated into digital networks gain access to information, opportunities, and social capital, while those who are excluded from these networks face increasing marginalization.

As the concept developed further, scholars began to recognize that the digital divide is not a static condition but a dynamic and evolving phenomenon. It changes in response to technological innovation, social transformation, and economic development. This dynamic nature means that new forms of inequality continuously emerge as technologies evolve, requiring constant theoretical re-evaluation.

The shift from first-generation to second-generation perspectives reflects a broader transformation in social theory itself. Inequality is now understood as a complex interaction between technological, social, cultural, and educational factors. This multidimensional approach allows for a more comprehensive understanding of how digital technologies shape social stratification in contemporary societies.

Ultimately, the conceptual evolution of the digital divide reveals that digital inequality is not merely a technical issue but a deeply social one. It is embedded in broader structures of power, education, and culture. The transition from access-based inequality to usage-based inequality

demonstrates that the digital divide is fundamentally about participation, capability, and the social conditions that enable individuals to benefit from digital transformation.

2. The Second-Generation Digital Divide: Skills, Usage, and Digital Capital

The second-generation digital divide represents a significant theoretical advancement in the study of digital inequality. Unlike the first-generation divide, which focused primarily on access to technology, this perspective emphasizes differences in how individuals use digital tools once access is available. It highlights the fact that equal access does not necessarily lead to equal outcomes, as individuals differ greatly in their digital competencies and patterns of engagement.

At the core of this framework is the concept of digital skills, which refers to the ability to effectively use digital technologies in both technical and cognitive ways. These skills include basic operational abilities, such as using devices and software, as well as advanced competencies such as information evaluation, content creation, and digital communication. The possession or absence of these skills plays a decisive role in shaping individuals' ability to benefit from the digital environment.

The second-generation digital divide also introduces an important distinction between active and passive usage of digital technologies. Active users engage in producing content, participating in online communities, and using digital tools for learning and professional development. In contrast, passive users primarily consume content without significant interaction or contribution. This distinction is crucial because it determines the extent to which individuals can convert digital engagement into meaningful social and economic advantages.

A central theoretical contribution in this context is the concept of digital capital. Digital capital refers to the accumulation of digital skills, competencies, and experiences that individuals can use to improve their social position. It is closely related to other forms of capital, such as cultural and social capital, as it reflects the ability to navigate and benefit from structured social environments. Individuals with high digital capital are more capable of leveraging technology for educational, professional, and social advancement.

The development of digital capital is not evenly distributed across society. It is strongly influenced by structural factors such as education, socio-economic status, and cultural environment. Individuals from higher socio-economic backgrounds often have greater access to digital training, better technological resources, and more supportive learning environments. As a result, they are more likely to develop advanced digital competencies compared to individuals from disadvantaged backgrounds.

Education plays a particularly important role in shaping digital skills and competencies. Educational institutions serve as key sites for the development of digital literacy, providing students with opportunities to engage with technology in structured and guided ways. However, inequalities in educational quality and access to digital learning resources can reinforce existing disparities, leading to uneven distribution of digital capital across different social groups.

The second-generation digital divide also has significant implications for the labor market. In modern economies, digital skills are increasingly required across a wide range of professions. Individuals with strong digital competencies are better positioned to access high-quality

employment opportunities, adapt to technological changes, and participate in digital economies. Conversely, those lacking such skills face barriers to employment and limited career progression.

In addition to economic consequences, digital inequality also affects social and civic participation. Individuals with higher digital skills are more likely to engage in online political discussions, access public services, and participate in digital forms of civic engagement. This increased participation enhances their social influence and integration, while digitally excluded individuals remain marginalized from important societal processes.

The accumulation of digital capital therefore becomes a key determinant of social inequality in contemporary societies. It not only reflects existing social divisions but also actively reproduces them by reinforcing advantages among already privileged groups. This dynamic contributes to the persistence of inequality even in highly connected digital environments.

Ultimately, the second-generation digital divide demonstrates that digital inequality is deeply embedded in social structures. It is not simply a matter of technological access but a complex interaction between skills, usage patterns, and socio-economic conditions. Understanding this divide is essential for addressing contemporary forms of inequality and promoting more inclusive forms of digital participation in the network society.

3. The Network Society and Structural Inequality

The theory of the network society provides a fundamental framework for understanding the transformation of social structures in the digital age. It conceptualizes contemporary society as one organized around networks rather than traditional hierarchical institutions. In this model, power, communication, and resources circulate through interconnected digital and informational networks that shape social organization at global, national, and local levels.

Within this theoretical perspective, digital networks are not neutral infrastructures but active structures that influence how social relations are formed and maintained. They determine who has access to information, who participates in decision-making processes, and who benefits from technological development. As such, networks become central mechanisms of inclusion and exclusion in contemporary societies.

One of the key features of the network society is the decentralization of power. Unlike traditional industrial societies, where power was concentrated in institutions such as the state, corporations, or bureaucratic systems, network societies distribute power across multiple nodes. However, this decentralization does not necessarily imply equality, as some nodes are far more influential than others within the network structure.

In this context, inequality emerges from the differential positioning of individuals and groups within networks. Those who occupy central positions in digital networks have greater access to information flows, resources, and opportunities. Conversely, those located at the periphery of networks experience limited access and reduced visibility, which restricts their social and economic mobility.

Information becomes a key resource in the network society, and its distribution is unevenly structured. Individuals who are well connected within digital networks are able to access real-time information, professional opportunities, and social capital more efficiently. This

informational advantage translates into broader social advantages, reinforcing structural inequality.

The network society also reshapes the nature of social interaction. Communication is increasingly mediated through digital platforms, which structure the ways individuals interact, collaborate, and form relationships. These platforms are governed by algorithms and technological systems that influence visibility, access, and participation, further contributing to unequal outcomes.

Another important dimension is the role of connectivity. Being connected is not sufficient; what matters is the quality and intensity of connections within the network. Strong and diverse connections provide access to multiple sources of information and opportunity, while weak or limited connections result in social isolation and reduced access to resources.

Structural inequality in the network society is therefore not only economic but also informational and relational. It is embedded in the architecture of digital systems that privilege certain users over others. These inequalities are often invisible, as they are produced through technological design, algorithmic processes, and patterns of usage rather than explicit exclusion.

Furthermore, the network society amplifies existing social inequalities by integrating them into digital systems. Individuals who already possess economic, educational, and cultural advantages are more likely to occupy central positions within networks. This creates a feedback loop in which social advantage translates into digital advantage, and digital advantage reinforces social privilege.

Ultimately, the network society reveals that structural inequality is deeply embedded in the organization of digital networks. Far from eliminating social disparities, digital transformation often reconfigures and intensifies them. Understanding these dynamics is essential for analyzing how power and opportunity are distributed in contemporary societies.

4. Digital Inequality and Mechanisms of Social Stratification

Digital inequality has become a central mechanism through which contemporary social stratification is produced and reproduced. Unlike traditional forms of inequality based solely on income or occupation, digital inequality operates through access to technologies, digital skills, and the ability to participate meaningfully in online environments. These dimensions interact to shape individuals' positions within the social hierarchy.

One of the primary mechanisms of digital stratification is unequal access to digital skills. Individuals with advanced technological competencies are able to navigate complex digital systems, access information efficiently, and engage in productive online activities. In contrast, those with limited digital skills are confined to basic forms of usage, which restricts their ability to benefit from digital environments.

Educational inequality plays a major role in reinforcing digital stratification. Educational systems often reproduce existing social inequalities by providing unequal access to digital learning resources and training opportunities. Students from privileged backgrounds are more likely to develop advanced digital competencies, while disadvantaged groups remain at a structural disadvantage.

Labor market inequalities are also strongly influenced by digital stratification. Modern economies increasingly require digital literacy across a wide range of occupations. Individuals with strong digital skills have better access to employment opportunities, higher wages, and career advancement. Conversely, those without such skills face exclusion from many sectors of the labor market.

Digital inequality also affects access to information, which is a critical resource in contemporary society. Individuals with strong digital competencies can access diverse sources of information, evaluate their credibility, and use them for decision-making. Those with limited skills are more vulnerable to misinformation and have reduced informational autonomy.

Civic participation is another domain affected by digital stratification. Digital platforms have become important spaces for political expression, civic engagement, and public debate. Individuals with higher digital literacy are more likely to participate in these activities, thereby increasing their social and political influence, while others remain marginalized.

The mechanisms of digital stratification are often subtle and embedded within technological systems. Algorithms, platform designs, and user interfaces shape how individuals interact with digital environments, often privileging certain users over others. These structural biases contribute to unequal outcomes without explicit discrimination.

Digital exclusion is not only a cause of inequality but also a consequence of broader social disadvantages. Individuals from lower socio-economic backgrounds often face multiple barriers, including limited access to technology, inadequate education, and lack of supportive environments for digital learning. These factors reinforce cycles of exclusion.

Over time, digital inequality becomes self-reinforcing. Those who are excluded from digital participation are less able to acquire the skills and experiences needed to improve their social position. This leads to cumulative disadvantage, where initial inequalities expand and solidify over time.

Ultimately, digital inequality functions as a powerful mechanism of social stratification in contemporary society. It shapes access to opportunities, resources, and social participation, thereby influencing individuals' life trajectories. Addressing this form of inequality requires not only technological inclusion but also structural reforms in education, labor markets, and social policy.

5. Digital Divide and Social Mobility in Contemporary Society

The relationship between the digital divide and social mobility has become increasingly significant in contemporary societies characterized by rapid technological transformation. Social mobility refers to the ability of individuals or groups to move within the social hierarchy, whether upward or downward, based on changes in education, occupation, income, and social status. In this context, digital competencies play a decisive role in shaping mobility trajectories. Digital skills are now essential for educational success, which is a key driver of social mobility. Students who possess strong digital literacy are better able to access learning resources, engage in online education platforms, and develop critical thinking skills. These advantages translate into improved academic performance and greater opportunities for higher education.

In the labor market, digital competencies have become a fundamental requirement for employment and career advancement. Many professions now rely on digital tools for communication, analysis, and production. Individuals with advanced digital skills are more likely to secure stable and well-paying jobs, while those without such skills face limited employment opportunities and job insecurity.

Entrepreneurship is another domain where digital skills significantly influence social mobility. Digital platforms enable individuals to create businesses, access markets, and engage with customers globally. Those who can effectively use digital tools are better positioned to innovate and generate economic opportunities, thereby enhancing their upward mobility.

Social networking opportunities are also deeply shaped by digital capabilities. Online platforms allow individuals to build professional and social networks that can provide access to information, opportunities, and support. Strong digital engagement expands social capital, which is a crucial factor in achieving upward mobility.

However, the absence of digital skills can lead to social stagnation or even downward mobility. Individuals who are excluded from digital environments may find themselves unable to access essential services, job opportunities, or educational resources. This exclusion limits their ability to improve their socio-economic position over time.

The digital divide therefore acts as a barrier to equal opportunity in contemporary society. It creates unequal starting points for individuals, depending on their access to technology and digital competencies. These inequalities accumulate over time, influencing long-term life trajectories and reinforcing social divisions.

From a structural perspective, digital inequality contributes to the reproduction of social hierarchy. Individuals who already possess economic and educational advantages are more likely to develop advanced digital skills, which in turn enhance their mobility. Conversely, disadvantaged groups remain trapped in cycles of limited opportunity.

Policy responses aimed at reducing the digital divide are therefore essential for promoting social mobility. These include investments in digital education, training programs, and inclusive technological infrastructure. However, addressing the digital divide requires more than access; it requires ensuring that individuals can effectively use digital tools in meaningful ways.

Ultimately, the digital divide is a key determinant of social mobility in the networked society. It shapes individuals' access to education, employment, and social participation, thereby influencing their life chances. Understanding this relationship is crucial for developing strategies that promote equality and reduce structural barriers in the digital age.

Conclusion

The analysis of the second-generation digital divide demonstrates that digital inequality has evolved far beyond issues of access to technology and has become a deeply structural and multidimensional social phenomenon. In contemporary networked societies, the ability to access digital tools is no longer the main determinant of inclusion; rather, the decisive factor lies in how individuals use these tools and the extent to which they are able to transform digital engagement into meaningful social, educational, and economic outcomes. This shift highlights

the transition from a material understanding of inequality to a cognitive and skill-based understanding, where digital competencies become central to social positioning.

The study shows that digital skills are now a critical form of capital that influences individuals' life chances. Those who possess advanced digital competencies are able to navigate complex information environments, access better educational resources, and integrate more effectively into labor markets. Conversely, individuals with limited digital skills face structural disadvantages that restrict their participation in key domains of social life. This imbalance reinforces existing inequalities rather than reducing them, as digital transformation tends to amplify pre-existing social and economic disparities.

Furthermore, the findings emphasize that the network society intensifies the importance of digital connectivity as a structural condition for participation. Power, information, and opportunities are increasingly distributed through digital networks, meaning that individuals' positions within these networks significantly shape their access to resources. Those located at the center of digital flows benefit from enhanced visibility and opportunity, while those at the margins experience exclusion and reduced social mobility. This structural arrangement contributes to new forms of stratification that are less visible but highly influential.

The relationship between digital inequality and social stratification reveals that digital exclusion operates as a mechanism of cumulative disadvantage. It is not limited to a single domain but extends across education, employment, civic participation, and social interaction. Individuals who lack digital competencies are progressively excluded from opportunities that are increasingly mediated through digital systems. Over time, this exclusion becomes self-reinforcing, leading to persistent inequalities that are difficult to reverse without targeted intervention.

In terms of social mobility, the digital divide plays a decisive role in shaping upward and downward mobility trajectories. Digital literacy enhances individuals' ability to improve their educational outcomes, secure employment, and build social networks, all of which are essential for upward mobility. In contrast, the absence of digital skills can lead to stagnation or decline in social position, particularly in societies where digital systems are deeply integrated into everyday life. This dynamic demonstrates that digital inequality is now a key determinant of life chances in the modern world.

Ultimately, addressing the second-generation digital divide requires more than expanding access to technology. It necessitates comprehensive strategies that focus on developing digital literacy, enhancing educational systems, and ensuring equitable opportunities for meaningful digital participation. Without such measures, digital transformation risks reinforcing existing social hierarchies rather than reducing them. The challenge, therefore, lies in transforming digital inclusion from a technical goal into a broader social and educational project aimed at achieving real equality of opportunity in the network society.

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