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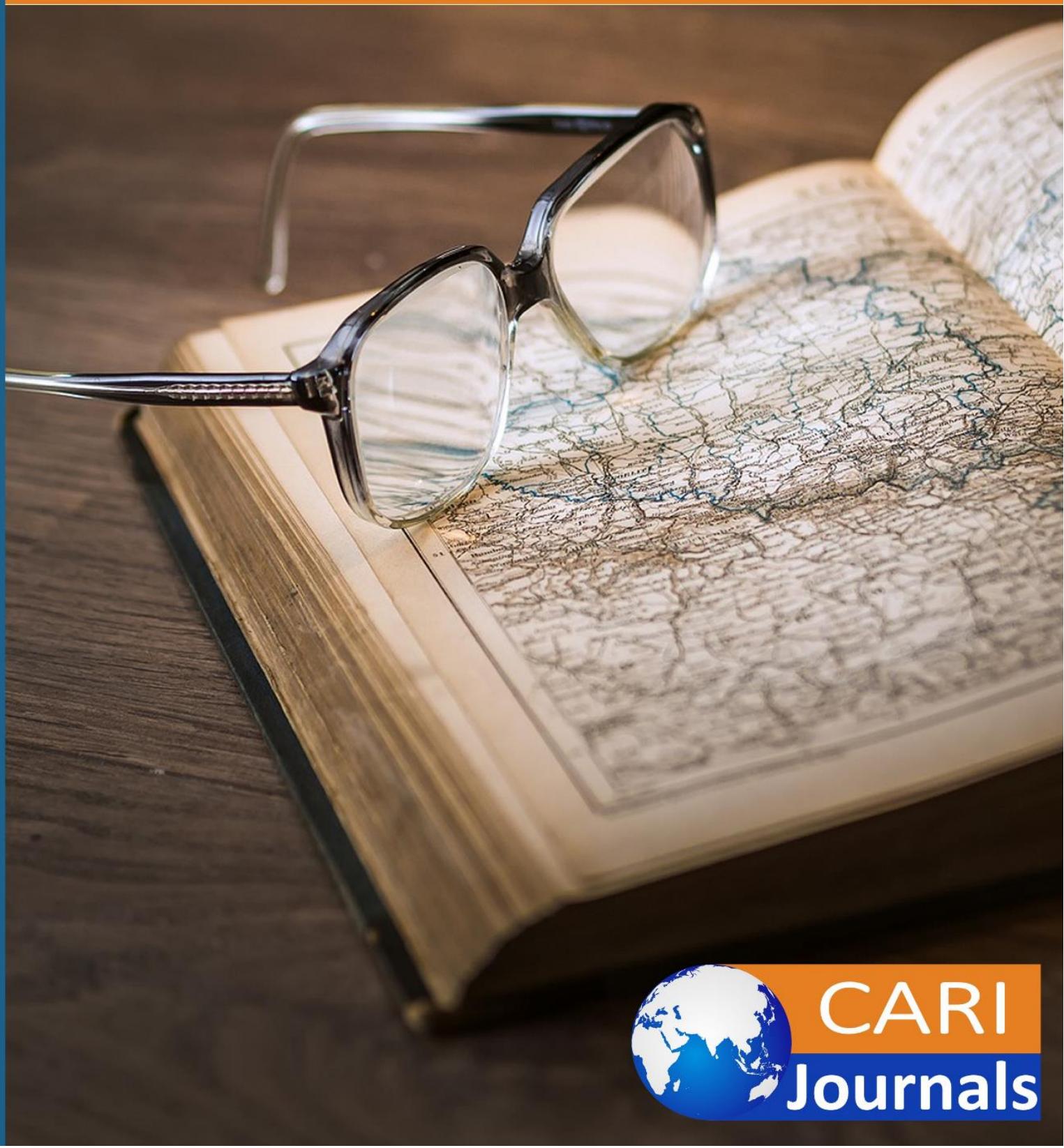
Digital Divide and Social Inequality



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Digital Divide and Social Inequality

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Abstract

Purpose: The general objective of this study was to examine digital divide and social inequality.

Methodology: The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

Findings: The findings reveal that there exists a contextual and methodological gap relating to digital divide and social inequality. Preliminary empirical review revealed that the digital divide exacerbated social inequalities in education, employment, and healthcare, primarily due to disparities in digital access and literacy. Despite technological advancements, marginalized groups continued to face significant barriers in using digital technologies effectively. The COVID-19 pandemic further highlighted these issues, underscoring the necessity for comprehensive strategies that included both digital literacy programs and improved access. The study emphasized the importance of targeted interventions and collaborative efforts to bridge the digital divide and promote social equity.

Unique Contribution to Theory, Practice and Policy: The study made significant contributions to theory, practice, and policy. It advanced theoretical frameworks by integrating Knowledge Gap Theory, Social Capital Theory, and Structuration Theory to better understand digital disparities. Practically, it highlighted the need for targeted digital literacy programs and community-based digital hubs. Policy recommendations included prioritizing investments in digital infrastructure, subsidizing digital access for low-income households, and integrating digital literacy into education curricula. The study also emphasized bridging the urban-rural digital divide, enhancing digital equity in education, and developing inclusive digital policies with stakeholder engagement and continuous monitoring.

Keywords: *Digital Divide, Social Inequality, Digital Literacy, Digital Infrastructure, Inclusive Policies*

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1.0 INTRODUCTION

Social inequality refers to the uneven distribution of resources, opportunities, and privileges among individuals within a society. It manifests in various forms such as income disparity, unequal access to education, healthcare, and employment opportunities, and is often influenced by factors like race, gender, and social class. In recent years, social inequality has become a critical issue globally, impacting economic growth, social cohesion, and overall quality of life. It is essential to understand the various dimensions of social inequality and how they manifest in different countries to develop effective policies to mitigate these disparities. In the United States, social inequality is a pervasive issue, particularly in terms of income and wealth distribution. According to data from the Economic Policy Institute, the top 1% of Americans own more than 40% of the nation's wealth, while the bottom 90% hold less than 30% (Mishel & Bivens, 2021). This significant disparity has profound implications for access to education, healthcare, and housing. For instance, children from low-income families often attend underfunded schools, resulting in lower educational outcomes and limited future opportunities. Additionally, healthcare access is closely tied to income, with those in lower-income brackets less likely to have health insurance or afford medical care (Dickman, Himmelstein, & Woolhandler, 2017). The COVID-19 pandemic has further exacerbated these inequalities, disproportionately affecting low-income and minority communities in terms of both health outcomes and economic stability (Yancy, 2020).

In the United Kingdom, social inequality is also evident, particularly in the context of income and regional disparities. The Institute for Fiscal Studies reported that the income gap between the richest and poorest households has widened over the past few decades, with the top 10% earning significantly more than the bottom 10% (Joyce & Xu, 2019). Regional inequalities are also pronounced, with wealth and opportunities concentrated in London and the South East, while areas in the North and Midlands lag behind. These disparities are reflected in educational outcomes, with students in deprived areas less likely to achieve high academic standards (Hutchinson, Reader, & Akhal, 2020). Furthermore, access to healthcare varies significantly, with those in poorer regions experiencing worse health outcomes and shorter life expectancies (Marmot, Allen, Boyce, Goldblatt & Morrison, 2020).

Japan presents a unique case of social inequality, characterized by relatively low income inequality but significant gender disparities. The Gini coefficient, which measures income inequality, is lower in Japan compared to many Western countries, indicating a more equal income distribution (OECD, 2020). However, gender inequality remains a significant issue, with women facing substantial barriers in the labor market. Women are underrepresented in leadership positions and often employed in lower-paying, non-regular jobs (Gender Equality Bureau Cabinet Office, 2020). This inequality is reflected in the gender pay gap, with Japanese women earning, on average, 23% less than men (OECD, 2020). Additionally, societal expectations and traditional gender roles further perpetuate these disparities, limiting women's opportunities for career advancement and economic independence (Shirahase, 2014).

In Brazil, social inequality is deeply rooted and multifaceted, influenced by historical, racial, and economic factors. The country has one of the highest levels of income inequality in the world, with the Gini coefficient consistently above 0.5 (World Bank, 2020). Racial inequality is a significant aspect, with Afro-Brazilians and indigenous populations facing substantial disadvantages in terms of income, education, and healthcare (Telles, 2014). For example, Afro-Brazilians earn significantly less than their white counterparts and are more likely to live in poverty (IBGE, 2019). Access to quality education is also uneven, with schools in poorer, predominantly Afro-Brazilian areas underfunded and lacking resources (World Bank, 2017). These disparities are compounded by a weak social safety net and limited opportunities for social mobility, perpetuating cycles of poverty and exclusion (Barros, Ferreira, & Saavedra, 2010).

In many African countries, social inequality is a pervasive issue, driven by economic disparities, political instability, and limited access to essential services. South Africa, for instance, has one of the highest levels of income inequality globally, with a Gini coefficient of 0.63 (World Bank, 2020). The legacy of apartheid continues to influence social and economic structures, resulting in significant racial disparities in income, education, and employment (Seekings & Nattrass, 2005). For example, white South Africans earn, on average, three times more than black South Africans, and educational attainment is significantly lower among black populations (Stats SA, 2019). Similar patterns are observed in other African countries, where wealth is concentrated among a small elite, and large segments of the population lack access to basic services such as education, healthcare, and clean water (UNDP, 2019).

Social inequality also manifests in healthcare access and outcomes across these countries. In the United States, racial and ethnic minorities, particularly African Americans and Hispanics, experience worse health outcomes compared to white Americans. They are more likely to suffer from chronic diseases, have higher mortality rates, and face barriers to accessing quality healthcare (Artiga, Orgera, & Pham, 2020). In the UK, health inequalities are stark, with life expectancy varying significantly between the richest and poorest areas. For instance, men in the most deprived areas of England live, on average, 9.4 years less than those in the least deprived areas (Marmot et al., 2020). In Brazil, access to healthcare is heavily influenced by socioeconomic status, with poorer populations relying on an underfunded public health system, while wealthier individuals can afford private healthcare (Paim, Travassos, Almeida, Bahia & Macinko, 2011).

Educational inequality is another critical dimension of social inequality. In the United States, funding for public schools is largely based on local property taxes, resulting in significant disparities in resources and quality of education between wealthy and impoverished areas (Reardon, 2011). In the UK, students from disadvantaged backgrounds are less likely to attend top universities, perpetuating cycles of poverty and limited social mobility (Boliver, 2013). Japan's education system, while highly competitive, also reflects social inequalities, with students from wealthier families having greater access to supplementary education and higher chances of entering prestigious universities (OECD, 2018). In Brazil, educational opportunities are severely limited for those in poorer regions and among racial minorities, impacting their future economic prospects and contributing to persistent inequality (World Bank, 2017).

The labor market is another area where social inequality is evident. In the United States, racial and gender disparities are significant, with women and minorities often earning less and having higher unemployment rates compared to white men (Bureau of Labor Statistics, 2020). In the UK, the gender pay gap remains a pressing issue, with women earning 15.5% less than men on average (Office for National Statistics, 2020). Japan's labor market is characterized by a dual structure, where regular employees enjoy job security and benefits, while non-regular employees, often women, face precarious working conditions and lower wages (Gender Equality Bureau Cabinet Office, 2020). In Brazil, informal employment is widespread, particularly among the poor and racial minorities, leading to job insecurity and limited access to social protections (IBGE, 2019). Social inequality also intersects with issues of housing and living conditions. In the United States, segregation and discriminatory housing policies have resulted in significant disparities in living conditions between racial groups, with minorities more likely to live in under-resourced neighborhoods (Rothstein, 2017). In the UK, the housing crisis has exacerbated social inequalities, with rising housing costs and a shortage of affordable housing disproportionately affecting low-income households (Resolution Foundation, 2019). In Brazil, informal settlements, or favelas, are home to millions of people living in precarious conditions without adequate access to sanitation, healthcare, and education (Perlman, 2010). Similar

issues are prevalent in African countries, where rapid urbanization has led to the growth of informal settlements, exacerbating social and economic inequalities (UN-Habitat, 2014).

Addressing social inequality requires comprehensive policy interventions and a commitment to social justice. In the United States, policy proposals such as raising the minimum wage, expanding access to healthcare, and investing in education are critical to reducing income disparities and improving opportunities for disadvantaged groups (Bivens, Mishel, Gould & Shierholz, 2018). In the UK, addressing regional inequalities through targeted investments in infrastructure, education, and healthcare in deprived areas is essential (McCann, 2016). Japan needs to focus on gender equality, implementing policies that support work-life balance, increase female participation in the labor force, and promote equal pay (OECD, 2018). In Brazil and African countries, improving access to quality education, healthcare, and social protections, along with addressing racial and regional disparities, is vital for reducing social inequality and promoting inclusive development (World Bank, 2017; UNDP, 2019). The digital divide refers to the gap between individuals, households, businesses, and geographic areas at different socio-economic levels regarding their opportunities to access information and communication technologies (ICTs) and their use of the Internet for a wide variety of activities. This gap is a critical issue in the modern world, where access to digital technologies is increasingly becoming a prerequisite for full participation in economic, social, and political life. The digital divide can manifest in various dimensions, including access to hardware, internet connectivity, digital literacy, and the ability to effectively utilize digital tools (Van Dijk, 2020). It is not merely about the presence or absence of technology but also about the inequalities in the skills and abilities to use these technologies effectively. Addressing the digital divide is essential for ensuring that all members of society can benefit from the digital revolution and the opportunities it brings.

Access to hardware, such as computers, smartphones, and other digital devices, is the most visible aspect of the digital divide. In many parts of the world, particularly in low-income regions, access to these devices remains limited due to high costs and lack of infrastructure. For instance, Pew Research Center (2019) found that in the United States, 81% of adults own a smartphone, but ownership drops significantly among low-income households. This disparity limits the ability of poorer individuals to participate fully in the digital economy and access essential services such as online education, telehealth, and e-commerce (Anderson & Kumar, 2019). The lack of access to hardware not only affects individual capabilities but also impacts entire communities, perpetuating cycles of poverty and social exclusion. Internet connectivity is another critical component of the digital divide. While high-speed internet has become ubiquitous in many urban areas, rural and remote regions often suffer from poor or nonexistent internet connections. This divide is evident in both developed and developing countries. In the United States, the Federal Communications Commission (FCC) reported that 21.3 million Americans lacked access to high-speed internet as of 2019, with rural areas being disproportionately affected (FCC, 2020). Similarly, in Africa, only 28.2% of the population had internet access in 2019, compared to the global average of 53.6% (ITU, 2020). Limited internet connectivity hampers economic development, access to education, and social inclusion, exacerbating existing inequalities.

Digital literacy, or the ability to use digital tools effectively, is a less visible but equally important aspect of the digital divide. Simply providing access to technology is insufficient if individuals lack the skills to use it productively. Digital literacy encompasses a range of skills, from basic tasks like using a keyboard and mouse to more complex activities like creating digital content and engaging in online collaboration. Van Deursen & Van Dijk (2019) highlights significant disparities in digital literacy, with older adults, low-income individuals, and those with lower educational attainment often lacking these crucial skills. Without digital literacy, people are unable to take full advantage of digital

technologies, further entrenching social inequalities. The economic implications of the digital divide are profound. Access to digital technologies and the internet is increasingly essential for economic participation. Jobs in many sectors require digital skills, and the ability to search for employment, apply for jobs, and even work remotely often depends on internet access. McKinsey & Company (2016) found that bridging the digital divide could increase global GDP by $2 trillion, highlighting the significant economic benefits of ensuring broader access to digital technologies. Conversely, those without access to these technologies are left at a considerable disadvantage, unable to compete effectively in the labor market, thereby perpetuating income inequality (Manyika, Lund, Bughin, Woetzel, Stamenov & Dhingra, 2016).

Education is one of the areas most profoundly affected by the digital divide. Access to digital tools and the internet is crucial for modern education, facilitating everything from online learning resources to virtual classrooms. However, students from low-income families and rural areas often lack access to these technologies, leading to significant disparities in educational outcomes. During the COVID-19 pandemic, the shift to online learning highlighted these inequalities, with many students unable to participate fully in remote education due to lack of devices or internet access (Dorn, Hancock, Sarakatsannis & Viruleg, 2020). This digital divide in education not only affects current learning but also has long-term implications for future opportunities and social mobility. The healthcare sector has also been significantly impacted by the digital divide. Telehealth services, which have become increasingly important, especially during the COVID-19 pandemic, require reliable internet access and digital literacy. Those without these resources are unable to benefit from telehealth, exacerbating health disparities. Nouri, Khoong, Lyles & Karliner (2020) found that older adults and low-income populations are less likely to use telehealth services due to lack of access and skills, leading to unequal access to healthcare. This divide in healthcare access can result in poorer health outcomes for disadvantaged populations, further contributing to social inequality.

The digital divide also affects social inclusion and civic participation. Access to digital technologies enables individuals to engage in social and political activities, from participating in online communities to accessing government services. Without access, marginalized groups are less able to participate in civic life and advocate for their rights. For example, a study by Mossberger, Tolbert, and McNeal (2017) found that individuals with higher levels of digital literacy are more likely to engage in online political participation. This lack of access and participation can lead to a sense of exclusion and disempowerment, reinforcing social inequalities. In developing countries, the digital divide is often more pronounced due to a combination of economic, infrastructural, and social factors. In many African countries, for instance, the cost of internet access is prohibitively high, and infrastructure is inadequate. According to the Alliance for Affordable Internet (A4AI, 2019), nearly half of the population in Sub-Saharan Africa lives in areas without access to mobile broadband coverage. Furthermore, cultural and social factors, such as gender norms, can restrict access to digital technologies for certain groups, particularly women (Hilbert, 2016). Addressing the digital divide in developing countries requires comprehensive strategies that consider these multifaceted barriers.

Addressing the digital divide requires targeted policy interventions at both national and international levels. Governments and organizations need to invest in infrastructure to ensure that all regions, including rural and remote areas, have access to high-speed internet. Additionally, initiatives to improve digital literacy through education and training programs are crucial. Policies that subsidize the cost of digital devices and internet access for low-income households can also help bridge the gap (OECD, 2015). Collaborative efforts between governments, private sector, and non-profits are essential to create a more inclusive digital environment that promotes social equity. The digital divide is a complex and multifaceted issue that significantly contributes to social inequality. Access to digital

technologies and the internet is essential for economic participation, education, healthcare, and social inclusion. However, disparities in access and digital literacy perpetuate existing inequalities and create new forms of exclusion. Addressing the digital divide requires comprehensive policy interventions and a collaborative approach to ensure that all individuals, regardless of socio-economic status, can benefit from the opportunities presented by digital technologies. Bridging this divide is not just a matter of technology but a crucial step towards achieving social equity and inclusive development.

1.1 Statement of Problem

The digital divide refers to the gap between individuals who have access to modern information and communication technologies (ICT) and those who do not, leading to significant social inequality. Despite the rapid advancement of digital technologies globally, access remains unevenly distributed, creating disparities in opportunities for education, employment, healthcare, and social engagement. According to the International Telecommunication Union (ITU), as of 2020, approximately 37% of the world's population, or about 2.9 billion people, still do not have access to the internet (ITU, 2021). This lack of access is particularly pronounced in low-income and rural areas, exacerbating existing inequalities and hindering socio-economic development. The COVID-19 pandemic has further highlighted and deepened these disparities, as access to digital resources became crucial for remote work, online education, and accessing healthcare information. Therefore, understanding the dynamics of the digital divide and its implications for social inequality is essential for developing targeted policies and interventions aimed at bridging this gap and promoting inclusive digital development. Existing research on the digital divide has primarily focused on the technological aspects, such as access to devices and internet connectivity, often overlooking the broader socio-economic factors that contribute to and result from this divide. Studies have shown that digital literacy, economic status, educational attainment, and geographic location significantly influence individuals' ability to access and benefit from digital technologies (Van Deursen & Van Dijk, 2014). However, there is a lack of comprehensive research that examines how these factors interact to perpetuate social inequality in different contexts, particularly in developing countries. Furthermore, there is limited empirical evidence on the effectiveness of various policy measures and initiatives designed to address the digital divide. This study aims to fill these research gaps by exploring the multi-dimensional nature of the digital divide and its impact on social inequality, with a focus on identifying the most effective strategies for mitigating these disparities. The findings of this study will benefit a wide range of stakeholders, including policymakers, educators, healthcare providers, and community organizations, by providing them with a deeper understanding of the digital divide and its socio-economic implications. Policymakers will gain insights into the critical areas that require intervention and the most effective policy measures to ensure equitable access to digital technologies. Educators will be better equipped to integrate digital literacy into their curricula and support students from disadvantaged backgrounds. Healthcare providers can leverage the study's findings to improve digital health initiatives and ensure that underserved populations have access to essential health information and services. Community organizations will benefit from strategies to enhance digital inclusion and empower marginalized groups. By addressing the digital divide, this study aims to promote social equity, enhance economic opportunities, and improve the overall quality of life for disadvantaged populations (Warschauer, 2003).

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2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 The Knowledge Gap Theory

The Knowledge Gap Theory, originated by Phillip J. Tichenor, George A. Donohue, and Clarice N. Olien in the 1970s, posits that as the infusion of mass media information into a social system increases, segments of the population with higher socio-economic status tend to acquire this information faster than the lower-status segments, thereby widening the gap in knowledge between these groups. This theory is highly relevant to the study of the digital divide and social inequality because it highlights the disparities in information access and acquisition that arise from unequal digital access. The digital divide is not just about the physical availability of technology but also involves differences in the ability to effectively use digital resources, which can perpetuate and even exacerbate existing social inequalities. The Knowledge Gap Theory suggests that those who are already disadvantaged in terms of education and income are less likely to benefit from digital information, which in turn affects their opportunities for social and economic advancement (Tichenor, Donohue, & Olien, 1970). By applying this theory, researchers can explore how differential access to digital information contributes to broader social inequalities and identify strategies to bridge these knowledge gaps.

2.1.2 Social Capital Theory

Social Capital Theory, extensively developed by Pierre Bourdieu and later by Robert Putnam, revolves around the idea that social networks have value and that the resources embedded within these networks, such as trust, norms, and networks of association, can facilitate collective action and access to resources. Bourdieu introduced the concept of social capital as a form of capital that individuals accrue through their social relationships, which can be leveraged to gain other forms of capital, such as economic or cultural capital. Robert Putnam expanded on this by examining how social capital influences societal outcomes, including community engagement and economic development. In the context of the digital divide and social inequality, Social Capital Theory is particularly pertinent because it underscores how unequal access to digital technologies can affect individuals' ability to build and maintain social networks that are crucial for accessing information, resources, and opportunities. Digital exclusion can lead to social exclusion, limiting individuals' social capital and perpetuating cycles of inequality (Bourdieu, 1986; Putnam, 2000). This theory helps researchers understand the broader social implications of the digital divide and the importance of fostering digital inclusion to enhance social capital and reduce inequality.

2.1.3 Structuration Theory

Structuration Theory, developed by Anthony Giddens, provides a framework for understanding the dynamic interplay between individual agency and social structure. According to Giddens, social practices are produced and reproduced through the interactions of individuals and the structures that both constrain and enable these interactions. This duality of structure emphasizes that while social structures shape individuals' actions, individuals also have the capacity to change these structures through their actions. In the context of the digital divide and social inequality, Structuration Theory is highly relevant as it allows for an analysis of how digital technologies both shape and are shaped by social practices. The theory helps to explore how digital exclusion is not merely a result of technological disparities but is also deeply intertwined with social, economic, and cultural structures that influence access to and use of digital technologies (Giddens, 1984). By applying Structuration Theory, researchers can investigate how individuals and communities navigate and potentially transform the digital divide, and how policies and interventions can be designed to support these transformative practices and reduce social inequality.

2.2 Empirical Review

Van Deursen & Van Dijk (2014) conducted an extensive study to examine the evolution of the digital divide from mere differences in access to significant disparities in the use of digital technologies. They employed a mixed-methods approach, combining quantitative data from large-scale surveys with qualitative insights from in-depth interviews. Their sample included individuals from various socio-economic backgrounds in the Netherlands, ensuring a comprehensive analysis of the issue. The findings revealed that although access to digital devices and the internet had become more widespread, there were still substantial disparities in digital literacy and usage skills. Specifically, older adults, individuals with lower levels of education, and those from lower-income households were less proficient in using digital technologies, which limited their ability to benefit from online resources. It recommended implementing targeted digital literacy programs, particularly for vulnerable groups, to bridge these gaps. They emphasized that policies should not only aim to provide access but also focus on enhancing the digital competencies necessary for meaningful use of technology.

Hargittai & Dobransky (2017) explored the intersection of digital inequality and health information-seeking behaviors among various demographic groups in the United States. Using a robust survey methodology, they collected data from a diverse sample that included individuals from different socio-economic, racial, and age groups. Their findings highlighted significant disparities in internet skills across these groups, which directly impacted their health information-seeking behaviors. For example, lower-skilled internet users, who were often from disadvantaged socio-economic backgrounds, were less likely to find accurate and reliable health information, leading to poorer health outcomes. The study underscored the need to improve digital literacy across all demographics to ensure equitable access to health information. The authors recommended that public health initiatives include components that enhance digital literacy, particularly focusing on marginalized communities to bridge the gap in health information access and utilization.

Robinson, Cotten, Ono, Quan-Haase, Mesch, Chen & Stern (2015) conducted a longitudinal study to understand the role of digital literacy in exacerbating or mitigating social inequalities in the United States. They tracked a cohort of participants over five years, assessing their digital literacy levels and corresponding socio-economic outcomes. The methodology involved regular surveys and assessments of digital proficiency, coupled with tracking educational and employment trajectories. The findings revealed a strong correlation between high levels of digital literacy and improved educational and employment opportunities. Participants with better digital skills were more likely to secure higher-paying jobs and achieve upward social mobility, whereas those with lower digital literacy tended to remain in lower socio-economic positions. Robinson et al. recommended incorporating digital literacy training into both formal education systems and adult education programs. They argued that enhancing digital skills is crucial for promoting social mobility and reducing inequality, as it empowers individuals to navigate the increasingly digital landscape effectively.

Helsper & Reisdorf (2017) conducted a cross-national study to analyze the digital divide in Europe, focusing on the differences in digital engagement among various socio-economic groups. Utilizing data from the Eurostat Community Survey on ICT Usage, they applied sophisticated statistical analyses to assess the relationship between socio-economic status and digital engagement. Their findings demonstrated that significant digital divides persisted based on income, education, and age. For instance, individuals from higher-income households and those with higher educational attainment were more likely to engage in a broader range of online activities, from accessing information to participating in e-commerce and social media. In contrast, marginalized groups, including older adults and lower-income individuals, showed lower levels of digital engagement. Helsper and Reisdorf suggested policy interventions to reduce these disparities, such as providing affordable internet access,

subsidizing digital devices for low-income households, and offering comprehensive digital skills training programs targeting disadvantaged populations.

Scheerder, van Deursen & van Dijk (2017) examined the digital divide within the context of emerging technologies, such as smartphones and social media, in the Netherlands. They conducted a large-scale survey involving thousands of participants from various socio-economic backgrounds and employed advanced statistical techniques to analyze the data. The results indicated that while smartphone adoption had increased across all socio-economic groups, there were significant differences in how these technologies were used and the benefits derived from them. Higher socio-economic groups were more likely to use smartphones and social media for productive activities, such as accessing educational content, managing finances, and networking for job opportunities. In contrast, lower socio-economic groups were more likely to use these technologies for entertainment purposes, such as gaming and social networking, which did not significantly contribute to improving their socio-economic status. The study recommended developing policies that encourage the productive use of digital technologies among lower socio-economic groups, including tailored digital literacy programs that emphasize the benefits of using digital tools for education, employment, and personal development.

Park (2017) explored the digital divide in South Korea, focusing on the generational and regional aspects of digital inequality. Park employed a mixed-methods approach, combining quantitative data from national surveys with qualitative interviews. The findings revealed that while South Korea had high overall internet penetration rates, significant digital divides existed between urban and rural areas, as well as between younger and older generations. Older adults in rural areas were the most digitally excluded, with limited access to digital devices and low levels of digital literacy. Park recommended targeted interventions to improve digital access and literacy among these groups, such as mobile training units and community-based digital literacy programs. The study highlighted the importance of addressing both access and skills to bridge the digital divide and ensure that all segments of the population can benefit from digital advancements.

Wei & Hindman (2018) investigated the relationship between digital inequality and political participation in the United States. Using survey data from a nationally representative sample, they conducted regression analyses to explore the impact of digital inequality on various forms of political participation, including voting, online activism, and political discussions. Their findings indicated that individuals with higher levels of digital access and skills were more likely to participate in political activities, both online and offline. Conversely, those with limited digital access and lower digital literacy were less engaged in the political process, which exacerbated existing political inequalities. Wei and Hindman recommended policy measures to enhance digital inclusion, such as improving broadband infrastructure in underserved areas and offering digital literacy programs focused on civic engagement. The study emphasized that reducing digital inequality is crucial for fostering a more inclusive and participatory democracy.

3.0 METHODOLOGY

The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

4.0 FINDINGS

This study presented both a contextual and methodological gap. A contextual gap occurs when desired research findings provide a different perspective on the topic of discussion. For instance, Wei & Hindman (2018) investigated the relationship between digital inequality and political participation in the United States. Using survey data from a nationally representative sample, they conducted regression analyses to explore the impact of digital inequality on various forms of political participation, including voting, online activism, and political discussions. Their findings indicated that individuals with higher levels of digital access and skills were more likely to participate in political activities, both online and offline. Conversely, those with limited digital access and lower digital literacy were less engaged in the political process, which exacerbated existing political inequalities. Wei and Hindman recommended policy measures to enhance digital inclusion, such as improving broadband infrastructure in underserved areas and offering digital literacy programs focused on civic engagement. The study emphasized that reducing digital inequality is crucial for fostering a more inclusive and participatory democracy. On the other hand, the current study focused on digital divide and social inequality.

Secondly, a methodological gap also presents itself, for instance, Wei & Hindman (2018) in investigating the relationship between digital inequality and political participation in the United States; used survey data from a nationally representative sample, they conducted regression analyses to explore the impact of digital inequality on various forms of political participation, including voting, online activism, and political discussions.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The pervasive nature of the digital divide continues to underscore significant social inequalities across the globe. Despite advancements in technology and increased efforts to provide universal access, disparities in digital access and literacy remain deeply entrenched, particularly among marginalized groups. This divide manifests not only in the availability of digital devices and internet connectivity but also in the proficiency with which these technologies are utilized. Socio-economic factors such as income, education, and geographic location play pivotal roles in shaping these disparities, creating a landscape where those with fewer resources are left further behind. The digital divide is not a singular issue of connectivity but a multifaceted problem that intersects with various aspects of social inequality, including education, employment, health, and civic participation. The COVID-19 pandemic has magnified these issues, highlighting the critical need for comprehensive strategies to address digital inequality.

One of the key conclusions drawn from this study is that digital literacy is as crucial as digital access in bridging the digital divide. Access to technology without the necessary skills to use it effectively does little to mitigate the underlying social inequalities. Digital literacy encompasses the ability to find, evaluate, and use information effectively, and it is essential for navigating the modern digital landscape. Disparities in digital literacy are evident across different socio-economic groups, with lower-income, less educated, and older populations often lacking the skills needed to benefit fully from digital technologies. Therefore, policies and initiatives aimed at reducing the digital divide must prioritize digital literacy programs alongside efforts to improve access. Such programs should be tailored to the specific needs of disadvantaged groups, ensuring that they are equipped with the skills necessary to leverage digital tools for personal and professional development.

Furthermore, the digital divide significantly impacts educational and economic opportunities, perpetuating cycles of poverty and exclusion. In education, students from low-income families often

attend underfunded schools with limited access to digital resources, leading to poorer educational outcomes and restricted future opportunities. This educational gap translates into the labor market, where digital skills are increasingly essential for securing well-paying jobs. Those without adequate digital proficiency are confined to lower-paying, less stable employment, further exacerbating economic inequalities. Addressing the digital divide in education is critical for breaking these cycles and promoting social mobility. Educational institutions and policymakers must collaborate to integrate digital skills training into curricula and ensure that all students have equal access to digital resources, regardless of their socio-economic background.

The digital divide also extends to healthcare, where access to digital technologies can significantly influence health outcomes. Individuals with higher digital literacy are better equipped to find and understand health information, engage with digital health services, and manage their health conditions. In contrast, those with limited digital access and skills face barriers to accessing essential health information and services, resulting in poorer health outcomes. The pandemic has underscored the importance of digital health literacy, as telehealth and online health information have become crucial components of healthcare delivery. To address this aspect of the digital divide, healthcare providers and policymakers must focus on improving digital health literacy and ensuring that digital health services are accessible to all, particularly to underserved and marginalized communities.

5.2 Recommendations

The study on the digital divide and social inequality offers substantial contributions to the theoretical frameworks surrounding digital literacy, social stratification, and information dissemination. By integrating elements of the Knowledge Gap Theory, Social Capital Theory, and Structuration Theory, this research provides a nuanced understanding of how digital disparities not only reflect but also reinforce broader social inequalities. The findings highlight the multidimensional nature of the digital divide, suggesting that future theoretical work should consider the interplay between access, skills, and socio-economic factors. This study challenges existing theories to evolve and incorporate the dynamic ways in which digital inclusion and exclusion influence social structures and individual agency. It calls for a more holistic approach to understanding digital inequality, one that accounts for the socio-economic contexts and the inherent complexities of digital engagement.

In terms of practical implications, the study underscores the necessity for targeted digital literacy programs that address specific needs of marginalized groups. It recommends developing tailored training modules that focus on enhancing digital skills among older adults, low-income individuals, and those with limited educational backgrounds. These programs should not only teach basic digital skills but also emphasize critical thinking, information verification, and the productive use of digital tools for education and employment opportunities. Additionally, the study suggests the establishment of community-based digital hubs where individuals can access technology and receive hands-on training. These hubs could serve as focal points for fostering digital inclusion and social engagement, providing resources and support to those who are digitally excluded. Practical interventions must be context-specific, recognizing the diverse barriers faced by different demographic groups.

The study's findings highlight the urgent need for comprehensive policy interventions aimed at bridging the digital divide. It recommends that governments prioritize investments in digital infrastructure, particularly in rural and underserved urban areas, to ensure that all citizens have reliable and affordable internet access. Policymakers should implement subsidies for low-income households to acquire necessary digital devices and internet services. Furthermore, the study advocates for the integration of digital literacy into the national education curricula, ensuring that digital skills are taught from an early age. Policies should also support lifelong learning opportunities, enabling individuals to continuously update their digital competencies in line with technological advancements. By addressing

both access and skills, policy measures can effectively reduce digital inequalities and promote social equity.

One of the key recommendations from the study is the focus on bridging the digital divide between urban and rural areas. The study highlights significant disparities in digital access and literacy between these regions, suggesting that rural areas often lack the necessary infrastructure and resources. To address this, the study recommends the deployment of high-speed internet services in rural areas through public-private partnerships. Governments should incentivize telecommunication companies to expand their services to these regions, ensuring that rural communities are not left behind in the digital age. Additionally, rural schools and community centers should be equipped with modern digital tools and resources, providing students and residents with opportunities to develop essential digital skills. This approach not only enhances digital inclusion but also supports economic development and social cohesion in rural areas.

The study emphasizes the critical role of education in mitigating digital and social inequalities. It recommends that educational institutions adopt comprehensive digital inclusion strategies that encompass both access to technology and the development of digital skills. Schools should ensure that all students have access to digital devices and high-speed internet, either through school-provided resources or community partnerships. Additionally, teachers should be trained in digital pedagogy, enabling them to effectively integrate technology into their teaching practices. The curriculum should include digital literacy as a core component, teaching students not only how to use technology but also how to critically engage with digital content. By fostering digital equity in education, schools can help level the playing field and provide all students with the tools they need to succeed in a digital society.

Finally, the study calls for the development of inclusive digital policies that address the diverse needs of all population segments. It recommends that policymakers engage with a broad range of stakeholders, including community organizations, educational institutions, and private sector partners, to develop and implement effective digital inclusion strategies. These policies should be based on robust data and research, ensuring that they are responsive to the specific challenges faced by different demographic groups. Additionally, the study advocates for regular monitoring and evaluation of digital inclusion initiatives, allowing for continuous improvement and adaptation to changing circumstances. By promoting inclusive digital policies, governments can create an enabling environment where all individuals have the opportunity to participate fully in the digital economy and society.

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