IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

Equity and Access in International Education: Bridging the Global Digital Divide

Dr.Md.Muzaffar Hussain Khan
(Associate Professor)
Ishrat Fatima
Research Scholar
Maulana Azad National Urdu University, Hyderabad
7053819162, fatimaishu12@gmail.com

Abstract

The term "digital" in the context of education refers to in access to digital services between the application of digital tools and technology to enhance instruction, including interactive materials, online platforms, and digital gadgets to improve learning outcomes. The difference in access to digital services between nations, areas, and individuals is known as the "digital divide." The phrase "digital divide" is increasingly being used to characterise the social ramifications of some groups of people having unequal access to ICT and the acquisition of essential skills. Cronin (2002). This discrepancy is regarded as a worldwide issue. In order to ensure that all populations worldwide have equitable access to the digital world, regardless of location, income, or other factors, it is imperative that we actively work to close the disparity between people with and without access to digital technologies and the internet. This includes offering digital literacy training, affordable internet access, and the infrastructure that is required in underserved areas. Improving digital literacy and promoting global educational access and equity are two benefits of closing the digital gap. The ideas of equity and access are becoming more and more important in the quickly changing educational environment of today. Education could undergo a revolution with digital literacy. It is challenging to guarantee equity in education and worldwide access without technology. Bridging the digital divide is essential to enhancing equity and access in international education. As a result, researchers frequently examine the digital gap and its implications for equity and access to international education. This article aims to comprehend The digital divide's effects on global educational equity and access, as well as strategies for closing the gap. Building on a critical examination of recent research, numerous articles from various journals have been analysed in order to comprehend the digital gap and its relevance to equity and worldwide educational access. Additionally, this article will offer some strategies to narrow the digital divide.

***Keywords**: digital divide, access, equity.*

Introduction

The term "digital divide" describes the difference in the availability of digital services between nations, areas, and individuals (Fuchs & Horak, 2008; Van Dijk, 2020; Potter et al., 2008; Mubarak, 2015; Bon, 2020). For instance, according to Internet World Stats (2023), 57% of Africans are not connected to the global digital civilization. This discrepancy is regarded as a worldwide issue. It is clear that digital communication and knowledge are crucial to the growth of nations and regions. (Bon, Anna, 2023) The digital divide can be addressed in a variety of ways. Some methods are technology-oriented, looking for advancements in technology. Some strategies concentrate mostly on profits and economic expansion. Other strategies aim to improve human well-being and are therefore more human-centric. With differing presumptions regarding the nature of development, the use of technology, and the intended results of closing the digital divide, each method represents a distinct worldview or school of thought. A group of mostly European academics, policymakers, and practitioners who were worried about the disruptive effects of digital advancement on the economy, society, and environment established the Digital Humanism Initiative in Vienna in 2019. In contrast to technocratic approaches that prioritise just technological innovation and economic progress, It was stated that the Vienna Manifesto for Digital Humanism was an appeal for humanism and ethics. (DIGHUM, 2019). Today, a large number of academics, policymakers, and decision-makers from all across the world support the digital humanism movement. It sparked a discussion over the goals and prospects of the digital society (DIGHUM, 2019).

A cosmopolitan perspective, where the Global South and the exclusion of people in low-resource environments are an essential issue to be discussed and addressed, quickly replaced the Digital Humanism Initiative's initial focus on the societal issues of the digital society in the Global North, where it originated. Only a small number of academic studies have been action-oriented, despite the fact that some, like Lin et al. (2015) and De et al. (2018), express criticism over several parts of the digital divide. However, from the standpoint of digital humanism, the objective is not only to have a conversation but also to raise awareness, influence legislation, and demand action that is both practical and problem-solving. Innovation in technology is advancing quickly. Data-driven artificially intelligent systems are the foundation of the technological revolution of the 2nd decade of the 21st century. There will likely be a number of new beneficial solutions, such as the advancement of speech recognition for regional indigenous languages or the digitisation and accessibility of particular contextual information systems. However, there are significant issues with the application of generative AI.

Parents and educators have been made aware of a number of challenges pertaining to the availability and application of information and communication technology (TECHNOLOGY) in higher education. Concerns about how technology affects classroom learning are urgent, as are debates about how this issue should be addressed and what shape it should take. Another area of worry is how these advances may affect the accessibility of excellent educational options. Today's college students must not only be conversant with but also proficient in a variety of technology tools and techniques in order to succeed in the future.

A nation's inhabitants must be highly proficient in technology if it is to develop technologically and maintain its competitiveness on the international scene. However, it has been noted that there is a sizable income disparity caused by the rates at which various nations adopt technology. All of these issues need to be resolved immediately if we are to see a rise in productivity and for our nation to become developed. We must ensure that all employees are knowledgeable about the most recent advancements in technology and has the skills and knowledge necessary to apply these advancements in their work (Bolt & Crawford, 2000). Digital access disparities today affect people all across the world in a variety of domains, including education, work, gender and race. The gap in education between the developed and developing worlds, between urban and rural areas, and between the rich and the poor is widening. As a result, I address potential solutions in the final section of this study, focussing especially on the issue of how to best involve educators in closing the gap.

Literature review

Access to technology infrastructures and information-seeking abilities are only two aspects of the digital divide. We must cover a wider range of skills if we are to effectively close the digital divide. In this article, we will propose a theoretical model from an information science perspective that includes everything from providing availability of information and communication technology (ICT) infrastructure to information sharing and creating high-level communities of practice. We will do this by drawing on our experience teaching information retrieval skills, our understanding of information-seeking behaviour, and our teaching expertise.The usage of the WWW by youngsters (Bilal & Kirby, 2002), knowledge workers (Choo et al., 2000), and specific professional groups (Kuhlthau & Tama, 2001) has also been the subject of several recent studies. Additionally, collaborative work and collaborative learning emphasise the value of the internet in an organisational setting, and there is growing interest in collaborative information retrieval (CIR) and collaborative information seeking (Hansen & Järvelin, 2004). By providing dedicated spaces for these communities to exchange information, an intranet should promote the exchange of knowledge and information. An organization's enabling infrastructure should include the WWW because it need to offer a common area for accessing, exchanging, and acting upon information.

Significance of the Study

In today's technologically advanced society, research on closing the digital divide and analysing access to and usage of technology in education is extremely important. Here are several main justifications for the significance of this research issue. Fairness in Education: Existing educational disparities are made worse by the digital divide. Researchers can determine the differences and inequalities that exist between various socioeconomic classes, communities, and geographical areas by examining how technology is accessed and used in education. Policymakers and educators need to know this information in order to create focused interventions and programs that try to close the gap. It makes sure that no student is left behind because of a lack of technology by enabling the establishment of equitable chances for all. Students' academic performance can be greatly impacted by their access to technology in the classroom. Finding the

methods and techniques that work best for enhancing educational results might be aided by having a thorough understanding of how technology is being used—or not.

In conclusion, it is crucial to investigate educational fairness and access as well as to solve the digital gap. It makes it possible to pinpoint problems, create focused treatments, and advance equal chances for every student. We may promote educational equity, close the achievement gap, increase digital literacy, strengthen teaching and learning methods, and make well-informed policy decisions by closing the digital divide. The development of a more technologically advanced and inclusive educational system that equips students for success in the twenty-first century depends on this research issue.

Objectives of the Study

1. To study the effect of digital divide on educational access.
2. To study the effect of digital divide on educational equity.
3. To suggest measures to bridge digital divide.

Methodology

Through a review and discussion of numerous pertinent studies, the current paper aims to investigate the effects of the digital divide on educational access and equity.

Digital Divide

The "gap" between people who are able to utilise new communication and information tools, including the Internet, effectively and others who cannot is known as the "digital divide," according to the Digital Divide Network. (The definition of "use" is unclear, making it unclear if it refers to the ability to enter a phrase into a search engine and receive a list of websites as results or to something else entirely.) Although there is disagreement among academics over the size of the difference and whether it is widening or contracting, they almost all agree that there is a divide of some kind at the moment. Access and the use of ICT technologies are heavily emphasised. According to Warschauer (2002), access to the extra resources that enable people to effectively use the technology, such as language and content, education and literacy, as well as institutional frameworks, is just as important in defining the digital divide as having physical access to computers and connectivity.

What does the "digital divide" actually mean? How does a person's viewpoint shift? Does this phrase mean different things to different socioeconomic and cultural groups? What sets this issue apart from issues of economic status, race, or class? The idea of a "digital divide" is not very recent. The terms "information rich" and "information poor" were popular in the late 1980s and early 1990s. The Internet's widespread accessibility then highlighted the disparity between the literate and the uneducated. (Cronin, 2002). At the national and global levels, social stratification has been demonstrated by differences in computer ownership, information technology access, and basic indicators of Internet connectivity. They provide the discourse of the information-rich/information-poor a concrete form, drawing attention to distributive unfairness from

those who should be concerned. (Cronin, 2002). The term "digital divide" refers to disparities in the use of digital technology because of this. However, rather than being a microcosm of broader socio-economic problems, the digital divide has been highlighted in the public domain primarily as a technological issue (Light, 2002). Consequently, examining the causes of the digital divide is essential.

In general, I believe that disparities in access to and utilisation of information and communication technology are the root cause of the digital divide, which is a societal issue. Therefore, I would argue that the digital gap threatens educational equity and access as well as social and economic justice.

Importance of digital divide

The importance of digital learning in the current educational landscape cannot be overstated. Digital learning offers a multitude of benefits that are crucial for preparing students to thrive in the twenty-first century in an era of rapid technological advancement and shifting educational demands.

Access and Equity: Students who might be unable to attend traditional brick-and-mortar schools or who live in remote areas can now access education thanks to digital learning, which breaks down geographical barriers. By providing chances for marginalised groups, such as adults with disabilities, people from underprivileged backgrounds, and people with impairments, it advances equity.

Flexibility and Personalization: Digital learning systems allow students to access learning resources at anytime, anywhere, and at their own pace. This flexibility facilitates a variety of learning methods and styles, enabling individuals to customise their educational experiences to fit their own requirements and preferences. Personalised learning routes that boost motivation and engagement can lead to better learning results.

Engagement and Interactivity: Simulations, gamified learning, and interactive multimedia materials encourage deeper learning and active participation. Students may more easily collaborate, communicate, and exchange knowledge thanks to digital tools, which enhances the dynamic and captivating learning environment. Furthermore, adaptive learning algorithms and quick feedback are common features of digital platforms that let students track their progress and get the help they require.

Access to Resources and Expertise: Digital learning provides access to a wide range of educational resources, including online courses, virtual labs, digital libraries, and educational applications. Students get access to current data, a variety of viewpoints, and professional opinions from all over the world. Digital technologies also make it possible to collaborate with experts and peers from different fields, which promotes interdisciplinary learning and creativity. All things considered, digital learning has emerged as a key component of contemporary education, providing institutions, teachers, and students with revolutionary opportunities. Yadav (2024)

Bridging the Digital Divide in International Education:

There is a reason why At the Community College of Aurora, Brownlee and his co-workers have been particularly the term "equitable student success." "Those of us who are currently in charge of training the future and present leaders of this nation must honestly ask, 'Have we embraced disruption in higher education?'" "Brownlee says." In other words, there are several approaches to achieving learning objectives. In the past, the academy has all too frequently adopted a one-size-fits-all strategy for teaching, achieving, and evaluating learning objectives. People will understand, interpret, and communicate in a variety of ways if they actually learn in varied ways. And more than ever, as a collective body of educators, we need to welcome the different social and economic upheavals that are taking place in our environment. Embracing this disruption includes HyFlex, hybrid, and online learning. Students of all backgrounds and sorts can learn in the method that works best for them thanks to the range of synchronous and asynchronous learning opportunities available. However, pupils must first be able to access this information. Without accessibility, it is impossible to modify access, as Brownlee demonstrates. Students cannot afford for institutions to ignore their mutually beneficial connection.

Suggest some measures to bridge digital divide.

1. **Improve Internet Infrastructure:** Building Internet infrastructure should be a top priority for governments and educational institutions, especially in underserved and rural areas. This involves establishing Wi-Fi hotspots, growing broadband networks and providing classrooms with consistent internet connection. Spending on infrastructure will guarantee fair access to online learning materials and aid in closing the connectivity gap.
2. **Provide Affordable Devices:** Programs must to be established to provide students, particularly those from low-income households, access to reasonably priced gadgets in order to guarantee fair access to technology. This can entail partnerships between government organisations, educational institutions, and tech companies to provide subsidised or cheap smartphones, tablets, or laptops. Students will be able to participate in online learning activities and interact with digital resources more successfully thanks to such initiatives.
3. **Offer Digital Literacy Training:** Students will be equipped with the abilities they need to use technology for learning if digital literacy is incorporated into the curriculum and training programs are made available. Topics like critical thinking, digital cooperation, information literacy, and internet safety should all be taught to students. Giving students digital literacy skills will better prepare them to succeed in the digital age.
4. **Foster Public-Private Partnerships:** In order to overcome the digital gap, cooperation between governments, academic institutions, nonprofits, and IT corporations is essential. To execute comprehensive programs, public-private partnerships can pool a variety of resources, money, and experience. In order to close the technological gap in education, stakeholders can collaborate to build on their own strengths and develop long-term solutions.

5. **Establish Technology Resource Centres:** Technology resource centres with PCs, internet, and instructional software can be set up in schools. These amenities can serve as gathering places for students to use technology both inside as well as beyond the classroom. Schools can also implement blended learning strategies that incorporate both online and offline resources. Encourage innovation and research, it is imperative that research and technological innovation in the field of education continue. Researchers, governments, and academic institutions should work together to investigate cutting-edge technology, industry best practices, and practical approaches to closing the digital divide. This entails evaluating the results of interventions and disseminating effective case studies to guide subsequent projects.
6. **Prioritize Equity in Educational Policies:** A comprehensive strategy is needed to close the digital divide. In educational programs, equity should be prioritised, guaranteeing that all students have access to high-quality technological resources and the assistance they need to use them efficiently. This means putting aside enough money, developing inclusive curriculum frameworks, and providing teachers with chances to further their careers that will improve their proficiency with digital pedagogy.

Conclusion

Developing transdisciplinary research approaches and innovating technology for and by people in low-resource situations are crucial. We covered community-based, cooperative Socio-technical software development and action research in the preceding paragraphs. The sharing of concepts shared by users and developers might inspire new types of collaborative knowledge production, but it can also spur creativity in low-resource situations in unanticipated ways. Due to differences in students' access to and usage of technology, the digital gap presents a serious problem for education. This divide has wide-ranging effects since it hinders students' access to digital resources and participation in online learning environments. But by putting specific plans into place, we can close the digital gap and provide fair technology availability in educational institutions. In order to close the gap, programs like enhancing internet access in underprivileged areas, giving children from low-income families access to reasonably priced devices, and providing instruction in digital literacy can be extremely important. Governments, academic institutions, non-profits, and IT businesses must work together to get the funds, resources, and know-how needed to successfully implement these tactics. Additionally, schools themselves can help by using blended learning approaches and setting up well-equipped computer labs. By addressing the digital gap, we can create a friendly and empowering educational setting where every student can benefit from technology. It is critical to understand that closing the digital divide is a step towards creating a more just and equitable society as well as improving educational chances. By working together, we can ensure that every child has the opportunity to thrive in the digital era and realize their full potential. (Afzal Arfa, 2023)

References:

(n.d.). Retrieved from https://edtechmagazine.com/higher/article/2022/03/understanding-digital-equity-gap-and-bridging-digital-divide-higher-ed-perfcon

Anna Bon, F. S.-D. (2023). Bridging the Digital Divide. In *Introduction to Digital Humanism* (pp. 283-298). doi:10.1007/978-3-031-45304-5_19

Arfa Afzal, S. D. (2023). Addressing the Digital Divide: Access and Use of Technology in Education. *journal of social sciences review*, 883-895. doi:10.54183/jssr.v3i2.326

Creed, A. Z. (2012). Equity and access in an e-enhanced, international, university environment: learning style implications. Retrieved from https://www.researchgate.net/publication/228841151

Gorski, P. (2005). Education equity and the digital divide. Retrieved from https://www.researchgate.net/publication/228616386

Yadav, N. (2024, january). The Impact of Digital Learning on Education. *International Journal of Multidisciplinary Research in Arts Science and Technology*. doi:10.61778/ijmrast.v2i1.34