LEARNING IN THE SHADOWS: HOW THE DIGITAL DIVIDE SILENCES INDIA'S RIGHT TO EDUCATION

Rudrali Deshpande, New Law College, BVDU

I. INTRODUCTION

The stark contrast of Mumbai's mobile library vans, which lend smart devices to children so they could attend online classes during COVID-19, against the backdrop of remote rural areas, which are not able to access either the internet or devices, illustrates a much larger constitutional issue: how can we fulfil the RTE when there exists such a large digital divide in our society? The RTE guarantees free and compulsory education to children between the ages of 6-14 years; however, for many of the millions of children in India who do not have access to the internet or appropriate devices or digital literacy, the constitutional promise of an RTE has not been fulfilled. As pointed out by one commentator, because of the large number of people in rural areas who do not have access to the internet or the right devices, large segments of the population in rural India will never be able to participate in digital education[1].

This essay will examine how the digital divide has evolved into a constitutional divide, thereby violating the right to equal treatment, dignity, and substantive realisation of the RTE for all children in India.

II. TRACING THE EVOLUTION OF RTE: JUDICIAL RECOGNITION TO CONSTITUTIONAL GUARANTEE

A. Evolution of the Right to Education: Article 21 to Article 21A

The evolution of the Right to Education in India illustrates how statutory provisions, constitutional modifications, and judicial action have contributed to its gradual establishment as an independent, enforceable social ground right. Before it emerged as an independent fundamental human right. Education was recognised as a component of Article 21[2]. The Supreme Court of India interpreted Article 21 as encompassing the right of individuals to have education to assist their ability to live that right with dignity in *Mohini Jain v. State of Karnataka*[3]. Subsequently, the Court upheld its interpretation of Article 21 through *Unni*

[1] Press Information Bureau, Government of India, Press Release, *Ten Years of Digital Progress — Digital India* (June 30, 2025)
[2] INDIA CONST. art. 21.
[3] Mohini Jain v. State of Karnataka, A.I.R. 1992 S.C. 1858.

Krishnan v. State of Andhra Pradesh[4], wherein it reaffirmed that every child from 6-14 years of age has the right to free education. These judicial decisions served as the basis upon which Parliament enacted the 86th Amendment to the Constitution of India[5], which added Article 21A. As a result, the right to education progressed from a judicially construed concept to a constitutional requirement mandating the State to provide free education in primary schools for every child aged 6-14 years.

B. Equality and Non-Discrimination: Articles 14 and 15

Articles 14 and 15 Set forth a substantive equality framework that provides context for the implementation of this right. The equal opportunity for all children to access education cannot be obtained unless access is equal. The Right to Education cannot be guaranteed unless the state develops a public education system that doesn't arbitrarily discriminate based upon caste, class, religion, or sex. These articles further require the state to create systemic safeguards that aim to prevent inequality amongst individuals when it comes to accessing education. While in the digital age, new inequalities are arising, such as the availability of devices, internet access, digital skills, and technological literacy, all of which have become the decisive factors of educational opportunity. Thus, the only way to create equal opportunities for obtaining a meaningful education is to build systematic safeguards against exclusion that are based on digital equity.

C. Directive Principles and the State's Educational Mandate (Arts. 38, 39, 41, 45)

The Directive Principles of State Policy (DPSPs) are the constitutional foundation for the Right to Education, because the DPSPs outline the State's broader social responsibilities. Article 38 requires States to promote social justice and lessen inequality. This obligation takes on an added significance when there are structurally disadvantaged barriers to educational access. Both Articles 39(e) and (f) identify children as a subsistence class in need of protection, development and opportunities in which to cultivate their personality. Article 41 obligates the State to fulfil access to education at all economic capacities, and Article 45. Ultimately crystallised into the fundamental guarantee found in Article 21A[6].

The DPSPs are not legally enforceable; however, the Supreme Court has consistently used the DPSPs as a basis for interpreting the Constitution whenever socio-economic rights

[4] Unni Krishnan, J.P. v. State of Andhra Pradesh, A.I.R. 1993 S.C. 2178.
[5] The Constitution (Eighty-sixth Amendment) Act, 2002 (India).
[6] INDIA CONST. art. 21A.

intersect with dignity and equality. In *Mohini Jain v. State of Karnataka* and *Bandhua Mukti Morcha v. Union of India*[7], In particular, the DPSPs have provided a social purpose to Fundamental Rights and have thereby redefined the constitutional expectations of what constitutes a dignified life. Taken as a whole, Articles 38, 39, 41 and 45 provide an ethical and constitutional framework for universal access to education and create a positive duty on the State to guarantee that no child is denied the right to receive an education that is meaningful, supportive and needed for personal development.

D. Failure of the legal framework in the digital era

India's RTE framework was written at a time when the concept of digital learning had not yet been developed. There is no mention of technology or digital infrastructure in the Constitution. Articles 14 and 15 state that discrimination based on traditional categories is prohibited; however, the Constitution does not view digital exclusion as a structural inequality. Likewise, the DPSPs talk about an education system that is accessible to all people but do not acknowledge the importance of technology in providing equal access to quality education.

The difference between how the Constitution was written and today's technological reality creates two distinct classes of students: those who have devices and internet connections and those who do not. While students in the digital class have the opportunity to fully participate in today's educational system, children in the non-digital class are as excluded as a child who cannot attend a physical school. The Constitution, however, places no legal responsibility on the government to provide access to digital technology. Without an acknowledgement of how essential digital inclusion is to providing equitable access to educational opportunities under Article 21A, the millions of children who are currently being denied an education will continue to exist outside of the formal education system.

III. THE DIGITAL DIVIDE IN INDIA: NATURE AND IMPACT

In India, there are many barriers to education as they relate to the digital divide. Digital exclusion does not simply represent a gap; rather, it combines in multiple, compounded layers of barriers to education. Understanding the multiple layers of the digital divide and evaluating how each layer of digital exclusion violates constitutional guarantees such as Articles 14, 15,

[7] Bandhua Mukti Morcha v. Union of India, A.I.R. 1984 S.C. 802.

21, and 21A is critical in addressing educational marginalisation. The three levels of the digital divide include:

A. Level 1 - Connectivity & Access to Equipment

The first and most obvious indicator of digital inequality can be found in the fact that people do not have access to devices, broadband service, or electricity. In many rural areas, there are no homes with computers and limited access to high-speed Internet, leaving millions of students unable to participate in online learning and access services such as DIKSHA or PM e-Vidya[8]. With the move to online education, these students were cut off from an educational opportunity and, in effect, rendered the provisions of Article 21A meaningless. Denying students this opportunity is the equivalent of denying them access to a brick-and-mortar classroom, and yet, as with many areas of digital inequality, it goes largely undetected by traditional educational policies.

B. Level 2 – Digital Skills & Literacy Barriers

Even with devices available, many teachers and students are not equipped with the necessary digital literacy skills to effectively navigate online platforms, submit assignments, or teach others online.[9] Teachers report feeling uncomfortable with online instruction and inadequate training on digital instruction.[10] The skills gap contributes to deepening the digital divide, as students from urban areas, who are raised speaking English, or who are members of affluent families acquire fluency with technology faster than their rural or marginalised counterparts. The second-level divide, therefore, creates an unequal educational opportunity for children, thereby violating Articles 14 and 15 of the Indian Constitution.

C. Level 3 – Differences in Educational Outcomes

The most profound of the levels focuses on Learning Outcome Differences. Students without consistent access to digital devices during the pandemic experienced the greatest losses in learning. Disparities in access and achievement impact literacy, numeracy, academic performance and access to higher education. Constitutionally, Level 3 undermines the

[8] Education for All in India, *63.5% of Indian Schools Now Online, Yet Over 25,000 Languish Without Electricity* (Sept. 14, 2025), https://educationforallinindia.com/63-percent-of-indian-schools-now-online-yet-over-25000-languish-without-electricity/.

[9] Ministry of Education, Government of India, Press Release, *Unified District Information System for Education Plus (UDISE+) 2024–25 Report* (Aug. 28, 2025), https://dsel.education.gov.in/sites/default/files/update/PIB2161543.pdf.

[10] Ministry of Education, Government of India, *DIKSHA: Digital Infrastructure for Knowledge Sharing*, https://diksha.gov.in.

substantive fulfilment of Articles 21 and 21A, as the absence of digital access produces predictable and system-wide Achievement Gaps.[11]

D. Cumulative Impact

All three levels of the Digital Divide build on one another, creating barriers to Skills Development and Achievement. By creating barriers to Skills Development, there are no meaningful Learning Outcomes. Collectively, these levels magnify current caste, class, gender and geographic inequalities. Unless the Digital Divide is addressed holistically, constitutional guarantees will be reduced to symbolic promises and not transformed into Rights.

IV. COMPARATIVE ANALYSIS

Comparative constitutional experiences offer great insight into how other areas developed their educational rights to match an evolving technological reality and in what ways they adapted to utilise technology. While India recognises education as a basic right, the way in which this right exists within the Constitution and the policy framework has not yet fully adopted or incorporated the digital aspect of this right. Understanding how other countries, including South Africa, Estonia, and Brazil, approach this issue provides valuable information related to the modernisation of India's existing perspective on the Right to Education as it pertains to the digital age.

A. South Africa: The Minimum Core Obligations and the enforceable nature of socio-economic rights.

Under South African law, the right to basic education is classified as an immediately enforceable right, while being progressively realisable under the Constitution of South Africa. Courts in South Africa developed the concept of "Minimum Core" which requires the State to provide a minimum level of the educational environment, including, but not limited to, adequate materials, functional infrastructure, and suitable learning conditions.[12] The application of this analysis to India's situation indicates that there is a need for a digital minimum core under Article 21A. In today's digital world, education requires meaningful use of digital devices, internet connectivity and proficiency with technology. Absent these three

[11] Sumanjeet Singh, *Digital Divide in India: Measurement, Determinants and Policy for Addressing the Challenges in Bridging the Digital Divide* (2010) (unpublished working paper, Ramjas College, Univ. of Delhi).
[12] R. Mestry, *A Critical Analysis of the Learners' Constitutional Rights to Basic Education in South Africa*, 82 Koers: Bull. for Christian Scholarship (3) (2017).

components, the State is essentially providing only a symbolic opportunity to access education.

B. Estonia: Universal Digital Infrastructure and Digital-First Education

Estonia demonstrates a technology-based model where high-speed connectivity, digital textbooks, online resources, e-assessments and other components of technology are used within the public education framework in building the foundation for the public education system. By viewing the provision of digital access as a public good rather than as an entitlement available only to affluent households, Estonia has created an example of how the broadest range of access to digital technology can significantly alter the landscape of education.[13] For India, where the Constitution guarantees equal treatment to all under Articles 14 and 15, the experience of Estonia is a reflection of the need to incorporate information technology as a part of the public education system in order to minimise the widening gap in education between rich and poor students.

C. Brazil: The Importance of Internet Access to Citizen Participation

Brazil's legal system considers connectivity to the Internet as essential for both participation in democracy and socioeconomic inclusion. In Brazil, the Internet is regarded as a public utility; therefore, Brazil recognises that when people are unable to access the Internet due to digital exclusion, their ability to fully exercise their fundamental rights is compromised, including their ability to access education.[14] This view aligns with the Constitution of India, which establishes the right to live with dignity and equality, and can also be interpreted as supporting the view that digital connectivity enables people to fully take advantage of Article 21A. Therefore, connectivity must not be viewed as an addition to or enhancement of the traditional education system but instead must be regarded as a requirement for having access to and benefitting from an equal and full educational experience in the digital age.

V. POLICY ANALYSIS: LIMITATIONS OF INDIA'S DIGITAL EDUCATION INITIATIVES

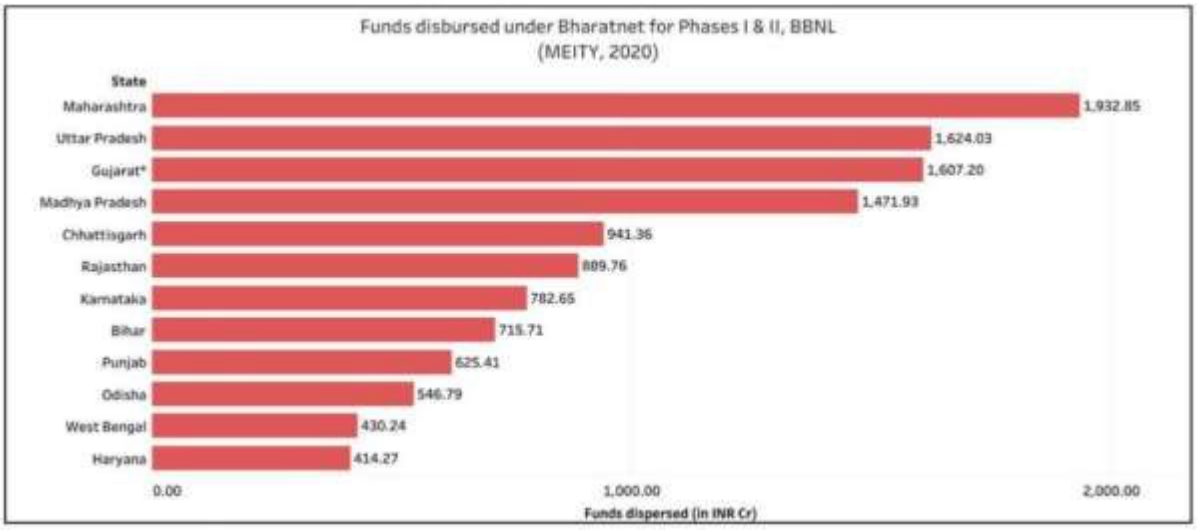
While India's leading digital education initiatives aim to make learning accessible via technology, these initiatives primarily serve people who are already digitally connected. In

[13] Mayors of Europe, *Estonia's Digitized Education System* (Feb. 21, 2022), *https://mayorsofeurope.eu/*.
[14] Ana Ivenicki, *Digital Learning and Higher Education in Brazil: A Multicultural Analysis*, 16 J. Comp. & Int'l Higher Educ. 127, 127 (2024).

parts of India, students do not have the devices, data, or electricity needed to access these resources. Additionally, the digital infrastructure in schools remains inconsistent across states. While numerous Government Schools do not have functional computer labs or stable Internet connections, delays in BharatNet have left vast amounts of rural India without access to the Internet, thereby increasing barriers to online access for students. Even where digital infrastructure is available, teachers have not received elementary digital-pedagogical training, so they are unable to properly support their students in leveraging technology as a learning tool.

The disparity of funds allocated to BharatNet across the country demonstrates further evidence of the incomplete and inconsistent state of Digital Infrastructure. As depicted in the graph below, the funds were distributed unevenly to major states, resulting in a disparity in the speed and amount of broadband introduced in rural areas.

Figure 1: Funds Disbursed Under BharatNet Phases I & II, BBNL (MEITY, 2020)[15]



From the graph, we can see that Maharashtra, Uttar Pradesh and Gujarat had the highest amounts of funding delivered (between ₹1600-1900 crore). On the contrary, West Bengal, Odisha and Haryana received far less money. The unequal allocation of funding can be linked to gaps in digital connectivity in rural areas, which directly impacts the ability for children from low-funding states to access digital learning. Thus, the incomplete and unequal deployment of BharatNet violates the constitutional right to equal opportunity for education as guaranteed by Articles 14 and 21A.

[15] Ministry of Electronics & Information Technology, *BharatNet Fund Disbursement Dashboard* (2020).

The language in which most of the instructional content is provided is English, and therefore further widens the cultural and linguistic divide. Social, political, and economic barriers continue to impede access to digital learning in India. The current digital education policies of the Government of India do not meet the requirements of "universality", "affordability" or "capacity-building" that will help ensure that all students have the same opportunity to access educational resources in the digital age. If we do not incorporate digital readiness and access into a comprehensive rights-based overlay of the educational system, the constitutional guarantee of equal and substantive education will remain unrealised.

VI. THE 4A DIGITAL REASONABLENESS TEST AND FUTURE PATH FINDINGS

An educational rights-based approach to digital learning requires evaluating the role of the State utilising the 4A Digital Reasonableness Test: Accessibility, Affordability, Availability, and Absorption. Accessibility means every child has actual access to a device and has a stable Internet connection[16]. Without this, Article 21A becomes merely a technical detail. Affordability means the cost of the device, data, and repairs must not be barriers to low-income families; economic barriers have the effect of violating Articles 14 and 15, regardless if they were intended to do so.

Availability means there is sufficient reliable digital infrastructure; without these, digital learning methods cannot operate. Absorption is about the teacher and student's ability to use the infrastructure; if teachers and students cannot use the infrastructure, it is meaningless. Given these constitutional mandates, the State must consider that minimum digital access is a component of the right. The provision of universal connectivity should be accomplished by speeding up the deployment of BharatNet and the establishment of community digital learning centres.

To address the affordability gap for low-income families and the barriers faced by girls and underrepresented groups, device subsidies and digital support need to be offered. Training on digital pedagogy needs to be a requirement for teacher readiness to utilise content in a digital environment; content needs to be accessible across a variety of regional and social factors to

[16] Subhash Singh, *4As Framework in Right to Education: A Critical Analysis* (Scholarly Research J. for Interdisciplinary Stud., 2017), https://www.scribd.com/document/404454854/4AS-FRAMEWORK-IN-RIGHT-TO-EDUCATION-A-CRITICAL-ANALYSIS.

support equitable access to educational content[17]. Annual audits of Digital Readiness should be included in the monitoring systems for the Right to Education to provide accountability to stakeholders.

When implemented in a coordinated fashion, all of these initiatives would raise the level of digital access from being an educational privilege to being a constitutional right, supporting education in a manner that addresses current society and workforce requirements

VII. CONCLUSION

The Digital Divide has become a Constitution Divide, turning the Right to Education into an unequal and often inaccessible promise for millions of children across India. As more and more of the school experience relies upon the use of Digital Tools, the lack of devices, connectivity and digital literacy has created new forms of exclusion that violate Article 21A, 14, 15 and 21 of the Constitution. In order to provide meaningful education in today's world, we must regard access to the Digital World as an integral part of the Constitution's guarantee of equality and dignity. The Rights-Based Framework necessary to ensure that all people have the same access to Digital Technology and Information in order to ensure all children have an equal opportunity to receive a Free and Compulsory Education in the 21st Century will not be achieved unless India adopts this Framework.

[17] Central Institute of Educational Technology, *Digital Education Initiatives* (NCERT, Dec. 31, 2024), https://ciet.ncert.gov.in/initiatives.