

Digital Divide Among School Children in Rajasthan: A Qualitative Study of Elite and Public Schools in Jaipur and Alwar

Corresponding Author

Jasnpreet Kaur ⁽¹⁾ & Dr. Rani Mahto ⁽²⁾

1. Research Scholar, Department of Education, Shri Jain T.T. College, Alwar (Rajasthan)

Affiliated with Raj Rishi Bhartrihari Matsya University, Alwar

2. Associate Professor, SHRI JAIN T.T. College, Alwar (Rajasthan)

Abstract: While the Digital India Programme has substantially expanded Internet infrastructure across India, its effect on how school children actually experience and use digital technology for learning remains under-researched, particularly the question of whether digital engagement differs qualitatively, and not merely in degree of access, across schools serving different social classes. This paper reports findings from a qualitative field study conducted in Jaipur and Alwar districts of Rajasthan, examining how primary school children across elite private, missionary, community, village public and government schools use the Internet, and how their teachers and parents perceive and mediate that use. Drawing on interviews and classroom observation, the study finds that children's Internet use, the spatial organisation of digital access in school and home, and the language in which digital technology is encountered all vary sharply by school type, reproducing rather than resolving pre-existing social stratification along lines of class, caste and language. The paper concludes with policy implications for Digital India's education-facing initiatives and suggests directions for further research.

Keywords: digital divide, school children, Rajasthan, social stratification, Internet use, qualitative research

1. Introduction

The Digital India Programme has significantly expanded the physical and administrative infrastructure for digital access across India since its launch in 2015, including in the education sector through platforms such as DIKSHA and state-level initiatives such as Rajasthan's SMILE and Shiksha Vani programmes. Yet the extent to which this infrastructural expansion has translated into comparable digital learning experiences for children across different social strata remains an open, and comparatively under-researched, empirical question. This paper addresses that gap by reporting findings from a qualitative field study conducted in two districts of Rajasthan — Jaipur and Alwar — examining how children in elite private, missionary, community, village public and government schools use the Internet, and how their teachers and parents perceive and mediate that use.

2. Objectives

The study was guided by four broad objectives: first, to examine patterns of Internet use among primary school children across different types of schools in Rajasthan; second, to

understand the role of physical and social space, in both school and home, in shaping children's engagement with digital technology; third, to explore how social stratification along lines of class, caste and language intersects with digital access and use; and fourth, to draw out the implications of these disparities for the Digital India Programme's education-sector initiatives.

3. Methodology

The study adopted an exploratory and descriptive qualitative research design, appropriate to a topic — the lived, everyday experience of digital technology among school children — that is not easily captured through large-scale survey instruments alone. A purposive sample of schools was drawn from Jaipur and Alwar districts of Rajasthan, spanning five broad categories: elite private schools, missionary schools, community schools, village public schools and government schools, in order to capture the range of institutional and socio-economic contexts within which Rajasthani children encounter digital technology.

Data were collected primarily through semi-structured interviews with primary school children, their parents and their teachers, supplemented by classroom observation of how digital devices and Internet connectivity were used, or not used, as part of everyday pedagogy. Interview transcripts were analysed thematically, informed by theoretical frameworks drawn from the digital divide and social stratification literature, particularly Giddens's (1984) theorisation of the social distribution of activity in space, Castells's (2001) account of the institutional differentiation of schools by class, and Van Dijk's (2013) multi-stage model of the digital divide.

As with any qualitative study of this design, several limitations should be noted. The fieldwork was restricted to two districts of Rajasthan, both established centres for education, and findings should not be generalised beyond similar contexts without further verification. Home-based Internet use was reconstructed primarily through interviews with children and parents rather than direct observation, and the growing role of smartphone-based social media platforms such as WhatsApp fell outside the scope of the fieldwork.

4. Findings and Discussion

4.1 Patterns of Internet Use. Children in elite schools used the Internet mainly for homework, projects and entertainment, and displayed the comfort and familiarity often associated with the “digital natives” framing (Prensky, 2001). However, this use remained concentrated at the level of information consumption — browsing, searching and downloading

— rather than the production of original digital content, suggesting that even relatively privileged children had not moved substantially beyond the more basic tiers of digital literacy. Play was an important, if frequently undervalued, mode of engagement: children across school types described enjoyment of digital games as intrinsically motivating, consistent with Aarsand's (2010) argument that playfulness, rather than being incidental, is central to how children develop strategic thinking and competence through digital media.

4.2 Space Dimensions: School and Home. Following Giddens's (1984) observation that the distribution of human activity in space is fundamental to social and cultural life, the study found that the physical location of digital gadgets, in both school and home, reflected and reproduced broader social meanings. The layout of homes — including the presence or absence of shared family spaces such as the traditional open courtyard, and whether children had access to a private or shared study space — shaped how, when and under whose supervision children engaged with the Internet. At the level of the school, infrastructure varied dramatically: air-conditioned classrooms with dedicated computer laboratories in elite schools stood in stark contrast to schools with leaking roofs and inadequate toilets in some government and village public schools, echoing Schofield and Davidson's (2002) finding that within-system disparities in school-based Internet access can be as consequential as disparities between systems.

4.3 Social Stratification and the Digital Divide. The study found a marked social distance between children educated in government and public schools and those in private, particularly elite, schools — a pattern consistent with Castells's (2001) observation that schools are institutionally differentiated by class, producing a substantial cleavage in technology access and use even within a single urban area. Language emerged as a particularly salient stratifying factor: interviews with children in elite schools were conducted comfortably in English, while interviews with children in public schools were conducted in the regional language, reflecting Warschauer's (2004) argument that the availability of digital content in regional languages — and not physical access alone — remains a persistent source of disparity in the Indian context. This finding is consistent with Keniston and Kumar's (2004) account of linguistic barriers to computing access in India: several children whose schooling was not English-medium described feeling that the language of computers and the Internet was not fully theirs.

5. Policy Implications

These findings suggest that Digital India's education-facing initiatives — including SMILE, Shiksha Vani, DIKSHA and PMGDISHA — have been considerably more successful

in extending physical or administrative digital access than in equalising how that access translates into learning. Echoing the National Curriculum Framework 2005's observation that the education system cannot be separated from the social hierarchies that surround it (NCERT, 2005), the study suggests that future digital education policy needs to move beyond device and connectivity provision to address regional-language content development, sustained teacher training, and support for home learning environments in under-resourced households. Existing legal instruments, notably the Right of Children to Free and Compulsory Education Act, 2009, could be more actively used to mandate minimum digital infrastructure standards across school types, so that market-driven adoption of proprietary educational software does not allow elite schools to pull further ahead of the public system.

6. Limitations and Suggestions for Further Research

As a qualitative study of a purposive sample across two districts, the findings reported here are not statistically generalisable, and a mixed-methods follow-up combining survey-based measurement with continued ethnographic depth would help establish how widely the patterns identified hold across Rajasthan and beyond. Future research would also benefit from direct observation of home-based Internet and smartphone use, including social media platforms such as WhatsApp that fell outside the scope of this study; a longitudinal design tracking the same children as Digital India's rural infrastructure initiatives, such as BharatNet and the expanding Common Services Centre network, mature; and evaluation of specific interventions, such as free laptop distribution schemes and DIKSHA-based teacher training, for their measurable impact on learning outcomes rather than on access alone.

7. Conclusion

The Digital India Programme has succeeded in building an impressive digital backbone for India's education system, and Rajasthan's rapid rollout of SMILE, Shiksha Vani and related initiatives illustrates the administrative agility this backbone makes possible. However, this study finds that access to that backbone remains sharply stratified by school type, class and language among school children in Jaipur and Alwar. Unless future policy attention shifts from infrastructure provision toward the social and pedagogical conditions that shape digital use, the risk is that Digital India will digitise, rather than dissolve, the disparities that have long characterised Indian schooling.

References

- Aarsand, P. (2010). Young boys playing digital games. *Nordic Journal of Digital Literacy*, 5(1), 38–53.
- Castells, M. (2001). *The Internet galaxy: Reflections on the Internet, business, and society*. Oxford: Oxford University Press.
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Polity Press.
- Government of India. (2009). *The Right of Children to Free and Compulsory Education Act, 2009*. New Delhi: Ministry of Law and Justice.
- Government of India, Ministry of Electronics and Information Technology. (2015). Digital India programme. Retrieved from <https://www.digitalindia.gov.in>
- Government of India, Ministry of Electronics and Information Technology. (2017). Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA). Retrieved from <https://www.digitalindia.gov.in>
- Keniston, K., & Kumar, D. (Eds.). (2004). *IT experience in India: Bridging the digital divide*. New Delhi: Sage Publications.
- National Council of Educational Research and Training. (2005). *National curriculum framework 2005*. New Delhi: NCERT.
- National Council of Educational Research and Training, Ministry of Education, Government of India. (2017). DIKSHA: Digital Infrastructure for Knowledge Sharing. Retrieved from <https://diksha.gov.in>
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1–6.
- Rajasthan School Education Department, Government of Rajasthan. (2020). SMILE: Social Media Interface for Learning Engagement. Retrieved from <https://rajshaladarpan.rajasthan.gov.in>
- Rajasthan School Education Department, Government of Rajasthan. (2020). Shiksha Vani: Radio education broadcasts for students without smartphone or internet access. All India Radio, Rajasthan.
- Schofield, J. W., & Davidson, A. L. (2002). *Bringing the Internet to school: Lessons from an urban district*. San Francisco: Jossey-Bass.
- Van Dijk, J. A. G. M. (2013). A theory of the digital divide. In M. Ragnedda & G. W. Muschert (Eds.), *The digital divide: The Internet and social inequality in international perspective* (pp. 29–51). London: Routledge.
- Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. Cambridge, MA: MIT Press.