India's digital divide: Bridging what, and for whom?

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Affordable mobile devices, reliable broadband services in underserved areas and targeted digital literacy schemes are a must

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Beneath India's remarkable digital journey (Aadhaar, UPI), 954 million internet connections (unique subscribers far less), and 66 per cent internet penetration rate lies a more complex narrative of digital exclusion.

The disparity in availability, access, and affordability highlights some critical challenges.

Net connectivity divide appears to have plateaued around 65 per cent. and the digital revolution appears to have disproportionately benefited urban, educated, and English-speaking populations, leaving rural and marginalized groups far behind.

Urban areas enjoy the lion's share of digital resources, with faster 5G rollouts and more robust infrastructure. However, rural net subscribers grapple with unreliable electricity and subpar infrastructure, which reinforces existing inequalities.

Another factor in this exclusion from opportunities in education, commerce, and governance is the poor state of teledensity in rural areas compared to the urban counterparts. This issue is further exacerbated by India's 85th position in literacy and 79th in educational support for digital engagement, inhibiting increased internet adoption.

Especially in rural areas, gender disparity is further heightened. Programmes like BharatNet, aiming to connect 2,50,000 Gram Panchayats (GPs) — these are the lead villages covering an average of nearly three villages) and further, go to all the 6,55,968 villages — have unfortunately not been successful till date despite huge Government funding of over ₹42,000 crore.

Further, geographical challenges, operational issues on Right of Way (RoW), lack of consistent electricity, and some policy aspects have also hindered progress.

Being Cheap isn't Enough

India's data tariffs are setting a global benchmark. However, low data costs do not help if the access devices such as smartphones, laptops, or tablets remain out of reach due to high costs, particularly in rural areas.

Also more than 50 per cent of bandwidth is consumed by video streaming for entertainment. For empowerment, the focus must shift to diverse use cases and also awareness-building.

The recorded internet speeds are heavily influenced by 5G users in urban areas and not reflective of the experience of vast segments of rural and semi-urban populations which still rely on 4G or even 3G

networks with significantly lower speeds, often dipping below 10 Mbps.

The situation is exacerbated by the abysmally low penetration of fixed broadband, which remains an urban luxury, reaching just about 3 per cent of eligible users.

Moreover, the digital divide is not just rural vs. urban; it is about availability within urban centres too, where affordability does not guarantee reliable infrastructure.

The way forward

Addressing these issues requires a multi-pronged approach. Importantly, robust investments in infrastructure are essential. Providing increased availability of the reliable fixed broadband service to underserved regions must go hand in hand with ensuring consistent electricity supply.

Secondly, targeted digital literacy programmes are needed to empower rural populations and marginalised groups. Initiatives like the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) have made great strides, reaching 6.39 crore people. Their impact could be improved with increased local-language computing.

Encouraging widespread adoption of local-language platforms can democratise access to digital tools, making them more accessible to non-English speakers.

Lastly, bridging the affordability gap requires policy interventions to make devices affordable and accessible. Subsidies for low-cost

devices and incentives for local manufacturing, some of which are already in place, can help address affordability concerns.

Further, schemes like PM WANI which seek to leverage technological infrastructure in a decentralized manner and combine it with entrepreneurship opportunities at the grassroots level can be game changers for last-mile delivery of internet to larger populations without requiring heavy investments.

Additionally, fostering a culture of productive internet use — through e-learning platforms, e-governance tools, and skill-building initiatives like FutureSkills Prime — can ensure that connectivity translates into empowerment. The solutions are within reach.