



DIGITAL TECHNOLOGY FOR REACHING THE UNREACHED

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Introduction

- Education is the single greatest tool for achieving social justice and Equity.
- The Education system must aim to benefit India's children so that no child loses any opportunity to learn and excel because their birth and background.
- Many successive government policies have made steady progress towards bridging the social category gaps in all levels of education but large disparities still remain.



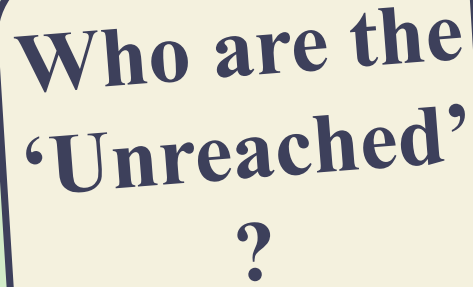
Introduction

- **Digital technology** today is not just about convenience, it is a catalyst for equity, inclusion, empowerment and quality for education.
- It helps us overcome geographical, social, and economic barriers to reach people who were previously excluded.
 - NEP-2020 emphasizes the use of technology for inclusive and equitable education.
 - UNESCO advocates “ICT in education as a tool for reducing inequalities.”
- Example: During COVID-19, online platforms like DIKSHA and SWAYAM became lifelines for millions of learners who could not attend schools physically.



Who are the 'Unreached'?

- **UNESCO(Education For All -2000&2015):** Unreached populations are those who remain excluded from educational opportunities, are in school but not learning or are at risk of dropping out due to poverty, location, gender, disability, language and social disadvantage.
- **UNICEF(Equity and Inclusion Framework 2017):** Unreached children are those who are hardest to find and the most excluded, often living in remote, rural or marginalized contexts with multiple deprivations.



Who are the 'Unreached' ?

The “unreached” refers to populations that are difficult to access through traditional systems.

- **Tribal and Rural Communities** – Remote villages often lack proper schools or hospitals.
- **Differently-abled Learners** – Require assistive technologies to learn equally.
- **Economically Weaker Sections** – Cannot afford private institutions.
- **Linguistic & Cultural Minorities** – Lack access to content in their mother tongue.
- **Remote/Isolated Populations** – Hill areas, islands, and conflict zones.

Example: In tribal areas of Chhattisgarh, students sometimes walk 10–15 km daily just to attend school. Digital classrooms can reduce this gap.



Role of Digital Technology

Digital tools empower communities in multiple domains:

Education

PM e-vidya - One Nation-One Digital Platform

DIKSHA, E-pathshala, SWAYAM, NIOS, NROER

Swayam Prabha-24x7 DTH Channels, DTH 31-ISL Channels,

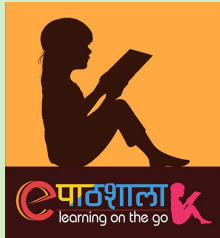
Radio/Community Radio (Gyanvani, Mukta Vidya Vani-NIOS, Shikshavani Podcast-CBSE, Radio Mattoli-Kerala, Chala Ho Gaon Mein-Jharkhand)

AI Based Personalized Learning Tools, Assistive Technology-Screen Reader, Braille, E-Books, AR/VR Science Labs

Samagra Shiksha Abhiyaan- ICT Labs in Schools

Teacher Created YouTube Lessons

VRC-ISRO, TALASH, GOAL



Healthcare

Tele-medicine apps like eSanjeevani provide doctor consultations in rural areas.



Governance

UMANG app gives access to over 1000 government services on mobile.



Financial Inclusion

UPI, Aadhaar-linked accounts, Jan Dhan Yojana make banking accessible even without traditional branches.

Social Empowerment

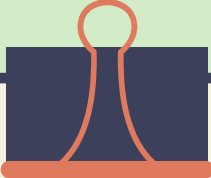
- WhatsApp groups connect Self-Help Groups (SHGs), farmers, and women's.
- Bharat Net/Bharat Bradband Mission 2.0
- Internet saathi-Google India, Intel, Tata Trust, common service centers,
- Pradhan Mantri Gramin Digital Sakshrata Abhiyan- 47.8million

Example: Farmers in Telangana use the Rythu Bandhu app to check subsidies and crop prices digitally.






Current and Emerging Initiatives

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- NETF- National Educational Technology Forum
 - NDLI- National Digital Library of India
 - Digital University
 - Artificial Intelligence in Schools- NCERT developing AI curriculum to prepare future ready learners.
 - NDEAR- National Digital Education Architecture



Case Studies & Success Stories

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- Education: The DIKSHA portal provides e-content in multiple Indian languages for teachers and students.
 - Healthcare: eSanjeevani has enabled 14+ crore tele-consultations in India (till 2024).
 - Agriculture: Kisan Suvidha app offers farmers weather updates, market prices, and expert advice.


Example: In Kerala, fishermen use mobile apps for real-time weather alerts, reducing risks during storms.

Importance of Digital Technology




**Anytime,
Anywhere
Learning**

**Removes
Geographical
Barriers**



**Supports
Personalized and
Self-paced
Learning**

**Interactive
Learning with
Videos, Quizzes
and Games**



**E.g., Tribal Students
in Arunachal
Pradesh Accessing
NCERT Lessons via
TV**

Challenges & Concerns

Digital Divide

Urban vs. rural, men vs. women, rich vs. poor.

Connectivity

Many villages still lack reliable internet.

Affordability

Smartphones, laptops, and data charges remain high for the poor.

Cybersecurity



Online frauds, data privacy issues.

Language Barrier

Most online content is in English/Hindi, leaving out regional dialects.

According to NITI Aayog, only 24% of Indian rural households have access to the internet.

Strategies to Bridge the Gap

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- Blended Learning - Offline + Online
 - Low-cost Devices & Preloaded Tablets
 - Community Digital Centres in Villages
 - Localized Content in Regional & Tribal Languages
 - Continuous Teacher Training (NISHTHA Online)
 - Example: Tablets given to tribal students in Melghat, Maharashtra
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Future Directions

Artificial Intelligence: Personalized learning apps that adapt to each student's level.

Virtual Reality (VR): Immersive experiences for science labs, history tours, etc.

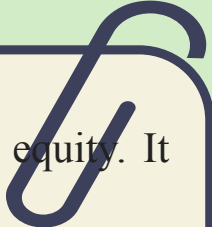
Low-cost Devices: Affordable tablets and community computer labs.

Solar Powered Internet Google's Project Loon and India's village-level Wifi initiatives

Local Language Content Creating e-resources in tribal and regional languages.

E.g., In Odisha, e-content is being translated into Santhali and Kui languages for tribal children.

Conclusion

Digital technology is not a luxury anymore, it is a necessity for inclusion and equity. It ensures no one is left behind in education, healthcare, governance, or economy. 

Key message:

- **Technology should not just connect the connected, but empower the disconnected.**
- **If technology can reach space, it can reach the remotest classroom also.**
- By making technology inclusive, we can truly achieve **Sabka**

Saath, Sabka Vikas.



THANK YOU!