



FinTech *for the* Last Mile

Financial Inclusion in the Era of Amrit Kaal

Dr. B. Indira Priyadharshini

Mr. A. Prakalathan

Dr. D. Saranya

Dr. M. Nirmala

FinTech for the Last Mile : Financial Inclusion in the Era of Amrit Kaal

Editors

Dr. B. Indira Priyadharshini

Mr. A. Prakalathan

Dr. D. Saranya

Dr. M. Nirmala

FinTech for the Last Mile : Financial Inclusion in the Era of Amrit Kaal

Dr. B. Indira Priyadharshini

Assistant Professor

Department of Commerce (CA), NGM College, Pollachi

Mr. A. Prakalathan

Assistant Professor

Department of Commerce (CA), NGM College, Pollachi

Dr. D. Saranya

Assistant Professor

Department of Commerce (CA), NGM College, Pollachi

Dr. M. Nirmala

Assistant Professor

Department of Commerce (CA), NGM College, Pollachi

First Edition : January 2026

ISBN : 978-93-94004-59-7

Price : Rs. 850/-

Copyright All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, mechanical, photocopying, recording or otherwise, without prior written permission of the author.

Printed at

CAUVERITECH Computerised Print Shop

21/2, Rajamill Road, Pollachi – 642 001.

Ph : 04259 – 221734

E-Mail : cauveritech@gmail.com

52.	THE RISE OF DIGITAL CURRENCIES AND THEIR ROLE IN INCLUSIVE FINANCE <i>Dr. E. Rama Devi, Ms. T. Shalini, Ms. S. Sadhana & Ms. V. Subhagini</i>	399
53.	AI AND IOT-BASED DIGITAL FINANCIAL ECOSYSTEMS FOR SMALL AND MARGINAL FARMERS : A PATHWAY TO INCLUSIVE GROWTH IN AMRIT KAAL <i>Dr. M. Sakthi</i>	407
54.	SECURING DIGITAL FINANCIAL INCLUSION IN AMRIT KAAL : CYBERSECURITY CHALLENGES AND POLICY IMPERATIVES FOR MARGINALIZED COMMUNITIES IN INDIA <i>Dr. M. Sakthi, Ms. S. Kiruba & Ms. K. Kesavapriya</i>	414
55.	OCCUPATION, INCOME AND ADOPTION OF SUSTAINABLE AND GREEN FINANCE THROUGH DIGITAL CHANNELS : EVIDENCE FROM WORKING WOMEN IN COIMBATORE DISTRICT <i>Ms. A. Gomathi & Dr. P. Chinna Sahaya Rani</i>	422
56.	SUSTAINABLE AND GREEN FINANCE ADOPTION THROUGH DIGITAL CHANNELS AMONG WORKING WOMEN IN COIMBATORE DISTRICT <i>Ms. A. Gomathi</i>	432
57.	GREEN FINANCE AS A STRATEGIC ENABLER OF SUSTAINABLE INTERNATIONAL BUSINESS : OPPORTUNITIES AND CHALLENGES <i>Dr. P. Karthika</i>	441
58.	LAST-MILE CHALLENGES IN DIGITAL INFRASTRUCTURE : CONNECTIVITY AND HARDWARE BARRIERS <i>Dr. P. Anu Shruthi</i>	447
59.	BRIDGING INEQUALITY THROUGH DIGITAL FINANCE : FINANCIAL INCLUSION FOR MARGINALIZED COMMUNITIES IN INDIA'S AMRIT KAAL VISION <i>Dr. T. Vijaya Chithra</i>	454
60.	DIGITAL LITERACY & EDUCATION GAPS <i>Dr. T. Mohana Sundari</i>	459

DIGITAL LITERACY & EDUCATION GAPS

Dr. T. MOHANA SUNDARI

Assistant Professor, Department of B.Com (CA)
NGM College, Pollachi.

ABSTRACT

The rapid integration of technology into educational systems has highlighted a critical "digital literacy gap"—the disparity between required 21st-century digital competencies and the actual skills possessed by students and educators. While digital literacy is essential for accessing online information, communication, and navigating educational platforms, significant inequalities exist across demographic, socioeconomic, and geographical lines. Research indicates that merely increasing access to devices does not equate to higher digital literacy; in fact, a "digital literacy paradox" has been observed, where increased tech usage in schools has sometimes coincided with declining digital competence. The gaps are particularly pronounced in rural areas, where lack of infrastructure hinders development. Furthermore, a disconnect exists between how students perceive their digital skills and their actual proficiency, often leading to overestimation of their abilities. Addressing these gaps requires more than teaching basic, instrumental technology skills (keystrokes); it necessitates fostering critical thinking, information evaluation, and ethical, secure online behavior. Effective solutions involve incorporating tailored digital literacy frameworks into curricula, providing comprehensive teacher training, and implementing targeted interventions to bridge the divide, ultimately ensuring equitable educational outcomes and workforce readiness in a digitized society.

Key words : *Digital Literacy, Education policy, Digital Divide, Digital Financial Inclusion.*

I.INTRODUCTION

Digital literacy has transitioned from a specialized skill to a foundational requirement for navigating the 21st-century, acting as a critical pillar for economic, social, and educational participation. It encompasses the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies. In education, it goes beyond operating devices; it involves critical thinking,

digital citizenship, and the capacity to leverage virtual learning tools for enhanced knowledge acquisition.

However, the rapid digital transformation, accelerated by the 2019 pandemic, has exposed significant education gaps—often referred to as the "digital divide". These gaps exist not only in physical access to devices and high-speed internet but also in the proficiency levels required to use these tools effectively. Socioeconomic, gender, and regional disparities often dictate an individual's access to digital tools, leading to unequal educational opportunities and, subsequently, career opportunities. Addressing these inequalities is crucial for creating an inclusive, equitable society where everyone can thrive in a digital-first environment. Bridging these gaps requires comprehensive strategies, integrating digital literacy into core curricula, and ensuring equitable technology distribution to prepare students for the modern, tech-driven workforce.

Digital literacy is the ability to navigate, evaluate, create, and communicate information using technology safely and effectively. It goes beyond basic technical skills, requiring critical thinking to assess online credibility and ethical engagement, similar to traditional reading and writing in the modern digital age.

II. CORE CONCEPTS IN DIGITAL LITERACY

- **Information Literacy:** Finding, managing, and analyzing digital content.
- **Communication:** Sharing information responsibly across digital platforms.
- **Collaboration:** Utilizing digital tools for team projects and social interaction.
- **Safety & Ethics:** Navigating online risks and understanding digital etiquette.

III. EDUCATION GAPS AND THE DIGITAL DIVIDE

Educational digital literacy gaps refer to disparities in access to devices and internet, as well as discrepancies in skills required to use them. This divide significantly affects academic success and future employability, as routine cognitive tasks are replaced by technology.

- **Access Gap:** Lack of hardware or stable, high-speed internet, especially in rural or low-income areas.
- **Usage Gap:** The difference between simply having access and possessing the skills to use technology for learning.
- **Gender Gap:** Substantial differences in internet access and usage, particularly among women in developing regions. Addressing these gaps requires promoting digital competency from an early age, ensuring equitable access to technology, and incorporating digital literacy into curriculum.



IV. SCOPE OF DIGITAL LITERACY

Digital literacy refers to the ability to find, evaluate, create, and communicate information using digital technologies, encompassing skills like online research, cybersecurity awareness, and ethical content sharing. Despite its growing importance in a tech-driven world, significant education gaps persist globally, widening inequalities in access and proficiency. This 500-word overview explores these gaps and the broad scope for intervention.

Core Challenges

The digital divide manifests in unequal access to devices, internet, and skills training, disproportionately affecting low-income, rural, and

marginalized groups. Globally, only 53% of adults are digitally literate, with 35% lacking basic skills; in developing countries, this drops to 50%. In India, particularly Tamil Nadu, 75-91% of students lack internet or computers, exacerbating urban-rural disparities during online shifts like the COVID-19 era. Teacher training deficits further hinder progress, as unprepared educators struggle to integrate tech effectively.

Education Impacts

These gaps lead to poorer learning outcomes, with students without digital access falling behind in assignments and research. In the EU, 43% of 14-year-olds fail basic digital competence, far from 2030 targets. Job markets demand digital skills for 87-90% of roles, yet mismatches perpetuate poverty cycles. Women and seniors face additional barriers, being 8% and 40% less likely to be proficient.

Scope for Solutions

Addressing gaps requires multifaceted programs: infrastructure investments, like India's device distributions and Kalvi TV, show promise in inclusivity. Global initiatives, such as Capgemini's programs in 15+ countries and EU's Dig Comp framework, emphasize training and AI integration. Future efforts should prioritize teacher up skilling, critical thinking curricula, and mobile-first content, as 70% of digital resources are phone-accessible. Policies in high-performing nations boost GDP by 15%, signaling economic incentives.

Future Opportunities

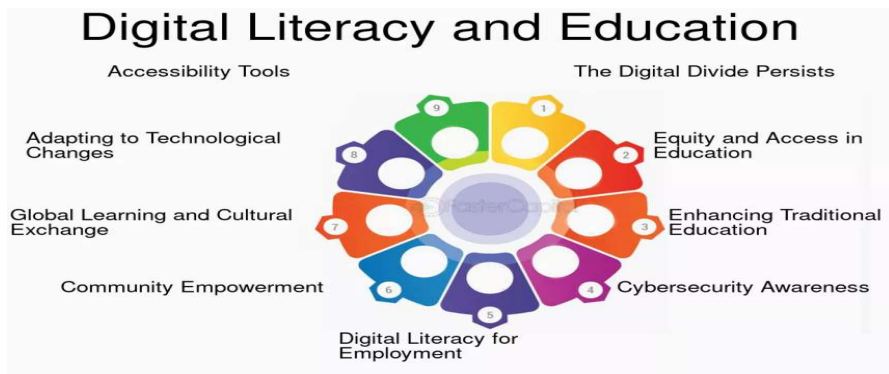
With generative AI rising, 2026 outlooks stress ethical use and personalized learning tools. Bridging gaps demands \$4B+ annually but yields better health, equity, and growth. In Tamil Nadu and beyond, scalable models like AI textbooks and vocational AI training can empower all. Comprehensive action now ensures equitable digital futures.

V. MEASURING THE SUCCESS OF DIGITAL LITERACY INITIATIVES

Measuring the success of digital literacy initiatives involves a mix of quantitative metrics, qualitative feedback, and longitudinal tracking to capture both immediate gains and sustained impact.

Core Metrics

Key indicators include enrollment and completion rates, pre/post skill assessments (e.g., proficiency in navigation, cyber security), and learner satisfaction surveys. Practical exams test real-world application, like creating digital content or spotting misinformation, while self-reported data gauges confidence boosts. Economic outcomes, such as employment gains or daily tech use (e.g., online banking), reveal broader value.



Evaluation Methods

Outcomes-based tools like surveys, focus groups, and classroom observations provide holistic insights, helping funders see ROI. Randomized controlled trials and longitudinal studies establish causality, tracking retention over 6-12 months. Standardized frameworks, such as Dig Comp or Technology Acceptance Model, ensure comparability across programs.

Contextual Challenges

In schools, link metrics to performance: improved grades, reduced gaps via GPA correlations, or higher participation in hybrid learning. For Tamil Nadu initiatives like Kalvi TV, measure rural access rates and assignment completion pre/post rollout.

VI. CONCLUSION

Digital literacy gaps in education persist as a profound global challenge, hindering equitable access to learning and future opportunities. Despite over 60% of the world's population having internet access, only 53% are

digitally literate, with stark disparities: 35% lack basic skills, women trail men by 8%, and low-income countries see just 50% adult proficiency. Rural-urban divides reach 20%, while 78% of students in developed nations access school computers versus 50% in developing ones. Teachers face a 59% unpreparedness rate for digital teaching, exacerbating gaps where 68% of low-income youth lack confidence. These inequities, amplified by COVID-19, left 826 million students without household computers and 706 million without home internet. With 87-90% of jobs demanding digital skills, the skills mismatch fuels unemployment—27% higher among unskilled youth—and costs billions annually to bridge, yet yields \$7 per dollar invested. Small businesses underutilize tools (40% shortfall), stalling growth. Prioritize infrastructure, teacher training, mobile-friendly content (70% accessible), and inclusive policies. Programs boosting school competency by 22% prove scalable; nations with strong policies gain 15% GDP growth. Closing gaps demands viewing digital literacy as a human right, empowering all for an inclusive digital future.

REFERENCE

1. Abo-Khalil, A. G. (2024). Integrating sustainability into higher education challenges and opportunities for universities worldwide. *Heliyon*, 10(9), e29946. <https://doi.org/10.1016/j.heliyon.2024.e29946>.
2. Aboagye, E., Yawson, J. A., & Appiah, K. N. (2020). COVID-19 and e-learning: The challenges of students in tertiary institutions. *Social Education Research*, 2(1), 1–8. <https://doi.org/10.37256/ser.212021422>.
3. Adzifome, N. S., & Agyei, D. D. (2023). Learning with mobile devices - insights from a university setting in Ghana. *Education and Information Technologies*, 28(3), 3381–3399. <https://doi.org/10.1007/s10639-022-11300-4>
4. Ahmad, S., Mohd Noor, A. S., Alwan, A. A., Gulzar, Y., Khan, W. Z., & Reegu, F. A. (2023). eLearning acceptance and adoption challenges in higher education. *Sustainability*, 15(7), 6190. <https://doi.org/10.3390/su15076190>.
5. Alismail, H. A., & McGuire, P. (2015). 21st century standards and curriculum: Current research and practice. *Journal of Education and Practice*, 6(6), 150–155.
