

Empowering Women through Digital Literacy and Access to ICT in Tripura

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Abstract— The paper explores the transformative impact of digital literacy and Information and Communication Technology (ICT) on women's empowerment in Tripura. Emphasising digital literacy as more than mere technical competence, the discussion navigates through the multifaceted skills required for meaningful engagement in a digitally connected world. It scrutinises the challenges faced by women in Tripura, including societal norms, access limitations, and educational gaps, while delineating the strides made in educational and workforce participation. Despite progress, persistent gender biases and cultural barriers hinder women's full participation in technology adoption and leadership roles. The study highlights government and non-government initiatives, such as the Digital India programme, that foster awareness and access to technology for rural and marginalised communities. It emphasises tailored interventions like integrating digital literacy into education and subsidising programmes for enhanced accessibility. The paper underscores that empowering women through digital literacy and ICT is a catalyst for societal transformation. By breaking barriers, fostering inclusive opportunities, and enhancing capabilities, it advocates for a more equitable and progressive environment where women play pivotal roles in driving socio-economic growth and creating resilient communities in Tripura.

Keywords— Digital Literacy; ICT; Empowerment; Development; NGOs.

I. INTRODUCTION

Digital literacy refers to a wide range of skills necessary for individuals to engage meaningfully and effectively in a digitally interconnected world. It goes beyond mere technical proficiency and involves the ability to access, evaluate, comprehend, and create information using digital devices and platforms. At its core, digital literacy enables individuals to navigate the vast digital landscape, discern credible information from misinformation, communicate efficiently through various digital mediums, and leverage technology to solve problems and innovate. It encompasses competencies in utilising digital tools, understanding digital citizenship, practicing online safety and privacy, critically analysing digital content, and adapting to emerging technologies. Digital literacy empowers individuals to participate fully in the digital age.

ICT refers to the diverse set of technologies utilised for communication, information processing, and data management. It encompasses hardware, software, networking, and digital platforms that enable the creation, storage, retrieval, transmission, and manipulation of data. This includes devices like computers, smartphones, and tablets, along with software applications, internet services, social media platforms, cloud computing, and communication networks. ICT serves as the

foundation for modern-day connectivity, facilitating the exchange of information across the globe and enabling individuals to access, share, and utilise vast amounts of data efficiently.

Empowering women in Tripura through digital literacy and ICT initiatives holds profound significance for fostering gender equality and socio-economic development. Access to technology equips women with the tools to overcome barriers that have historically limited their participation in various spheres. It enables them to acquire essential digital skills, access educational resources, and pursue online learning opportunities, thereby enhancing their employability and economic prospects. Digital literacy allows women to amplify their voices, advocate for their rights, and engage actively in decision-making processes. By bridging the digital divide, empowering women through technology contributes significantly to building inclusive societies and promoting sustainable development.

II. CURRENT STATUS OF WOMEN IN TRIPURA

Women in Tripura have made commendable progress in various spheres, yet societal norms and cultural practices often confine them to traditional roles within the family and community. While strides have been made, gender-based discrimination and stereotypes persist, limiting women's access to opportunities and decision-making roles. Empowering women to break free from these norms is crucial for their holistic development and contribution to society. The educational landscape for women in Tripura has significantly improved. The efforts taken by the government and NGOs have increased female literacy rates, empowering girls with access to schooling. However, challenges such as high dropout rates, particularly at secondary and higher education levels, continue to impede sustained educational progress. Access to quality education in rural and remote areas also remains a concern, hindering the full realisation of educational opportunities for many girls. Women's participation in the workforce in Tripura has increased, especially in sectors like education, healthcare, and government services. However, there is an underrepresentation of women in leadership roles and certain industries due to societal and cultural barriers. Issues such as unequal pay, limited access to training and resources, and societal expectations regarding familial responsibilities often hinder women's career advancements.

The adoption of technology is rising in Tripura, but women face disparities in access to and utilisation of technology. Factors such as a lack of awareness, limited resources, and cultural norms can prevent women from fully embracing digital

tools and ICT. Bridging this gap is essential to ensuring women have equal opportunities to leverage technology for their education, employment, and empowerment. Women in Tripura encounter multifaceted challenges. Issues related to healthcare, reproductive rights, gender-based violence, and economic disparities persist. Factors like child marriage, inadequate access to healthcare facilities, and insufficient representation in decision-making processes impact women's overall well-being and opportunities for advancement. Women's status in Tripura is pivotal for devising comprehensive strategies aimed at their empowerment. Addressing the challenges related to education, workforce participation, access to technology, societal norms, and specific issues faced by women is imperative. The efforts should focus on creating a conducive environment where women can thrive, contributing meaningfully to the socio-economic fabric of Tripura.

III. SIGNIFICANCE OF DIGITAL LITERACY AND ICT FOR WOMEN'S EMPOWERMENT

Digital literacy and ICT proficiency play an important role in the empowerment of women across Tripura, presenting transformative opportunities across various domains. These skills act as powerful tools, transcending geographical limitations and offering women unparalleled access to a vast array of educational resources, online courses, and vocational training. Through digital platforms, women can expand their knowledge, improve their skill sets, and pursue higher education, consequently enhancing their employability prospects across diverse industries. Proficiency in digital skills not only opens doors to employment but also allows women to navigate and thrive in technology-driven sectors such as information technology, digital marketing, data analytics, and remote freelance work. Digital literacy empowers women to explore entrepreneurship and economic self-reliance; access to online marketplaces, social media platforms, and e-commerce tools enables women to initiate and manage businesses from the comfort of their homes or local communities. These digital skills create opportunities for income generation, contribute to local economic growth, and foster a sense of autonomy and financial independence among women.

Digital literacy ensures access to critical information and resources for women's overall well-being. Through ICT, women can access healthcare information, legal resources, financial literacy programmes, and government schemes, enabling informed decision-making and improving their quality of life. Additionally, digital platforms serve as spaces for women's voices to be heard, allowing them to engage in online advocacy, raise awareness about social issues, advocate for gender equality, and demand their rights. This inclusion in societal dialogues and online advocacy helps in challenging societal norms and advocating for more equitable conditions for women. Equipping women with digital literacy and ICT skills not only enhances their individual capabilities but also contributes to the creation of more inclusive, equitable, and progressive communities in Tripura. These skills not only empower women to participate more actively in economic activities but also amplify their voices, making them more visible in societal dialogues and movements for positive

change. By providing women with access to digital tools and education, Tripura can foster an environment where women are empowered to make informed decisions, access opportunities, and actively contribute to the region's socio-economic growth.

IV. INITIATIVES PROMOTING DIGITAL LITERACY AND ICT

The initiatives aimed at promoting digital literacy and ICT among women in Tripura are instrumental in bridging the gender gap in technological access and knowledge. These initiatives encompass a range of efforts by governmental, non-governmental, and private sector entities, targeting various aspects of skill development, access to technology, and educational programmes specifically for women.

Government initiatives play a crucial role in promoting digital literacy among women in Tripura. Schemes like the Digital India programme, National Digital Literacy Mission, and various state-level programmes focus on empowering women through technology. These initiatives provide digital literacy training, workshops, and skill development programmes targeting women in both urban and rural areas. They often include special provisions for women from marginalised communities, aiming to ensure inclusive access to digital resources and education. Initiatives like Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) focus on digital literacy in rural areas, aiming to make one person per household digitally literate. In Tripura, these programmes target women specifically, organising camps, training sessions, and workshops at the village level to impart basic digital skills. The emphasis on reaching rural women is pivotal for bridging the digital divide and ensuring equal opportunities for all.

Non-governmental organisations (NGOs) and private sector initiatives play a significant role in promoting digital literacy among women. These organisations conduct outreach programmes, awareness campaigns, and training sessions in collaboration with local communities, focusing on enhancing digital literacy and providing hands-on training. Many NGOs work specifically with marginalised communities and rural areas to ensure that women from all backgrounds have access to digital education. The collaborative efforts between local authorities, community leaders, and educational institutions facilitate innovative outreach programs. These initiatives involve setting up mobile digital literacy vans equipped with computers and internet connectivity in remote areas. They conduct interactive sessions, empowering women with hands-on learning experiences and boosting their confidence in utilising digital tools effectively. Digital education initiatives specifically targeting women have gained momentum in Tripura. These initiatives often focus on empowering women through digital literacy programmes integrated into formal and informal education systems. Schools, colleges, and community centres host workshops, seminars, and specialised courses aimed at enhancing women's digital skills. Additionally, programmes like 'ICT in Education for Girls' aim to ensure girls have equal access to digital resources and ICT tools in educational institutions.

Skill enhancement programmes across sectors like agriculture, healthcare, and craft industries are integrating digital literacy components. Women engaged in these sectors

receive training on using digital tools for market analysis, accessing agricultural information, telemedicine, and showcasing craft products online, thereby enhancing productivity and market reach. Women in remote areas with limited access to physical training centres, mobile apps, and online platforms offering digital skill development have gained prominence. These platforms provide interactive courses, tutorials, and resources covering various aspects of digital literacy and ICT. Some initiatives focus on specific skills like coding, digital marketing, or entrepreneurship, enabling women to learn at their own pace and convenience. These initiatives, specifically designed to foster women-centric entrepreneurship, leverage digital platforms to train, mentor, and support aspiring female entrepreneurs. These programmes offer guidance in business planning, financial management, and digital marketing strategies. By encouraging women to utilise digital platforms for business growth, they foster economic independence and self-sufficiency.

V. CHALLENGES AND SOLUTIONS RELATED TO PROMOTING DIGITAL LITERACY AND ICT

In remote areas of Tripura, inadequate infrastructure remains a significant barrier to digital literacy. Inadequate power supplies and erratic internet connectivity hinder women's access to digital resources and online educational platforms. Geographic isolation exacerbates these issues, limiting the reach of technological advancements to rural communities. The Socio-cultural norms and stereotypes often discourage women from pursuing technology-related education or careers. Prevailing gender biases and societal expectations may limit women's access to digital tools and opportunities. Family expectations, limited mobility, and cultural norms can restrict women from engaging in technology-related learning. The significant challenge is the lack of awareness among women about the benefits of digital literacy and the absence of adequate training opportunities. Many women in rural areas might not fully understand the relevance of digital skills in their lives or lack information on where to access training programs. Economic constraints pose a significant barrier, especially for marginalised women, limiting their ability to afford digital devices, internet services, or enrolment in skill development programmes.

Engaging with local communities through awareness campaigns, cultural events, and interactive sessions aimed at challenging gender stereotypes is crucial. Highlighting the success stories of women in technology, organising discussions on the importance of digital literacy, and involving community leaders can shift societal perceptions. Integrating technology-related subjects into school curricula and conducting awareness sessions in educational institutions can expose young girls to technology early on, challenging gender biases and fostering interest in technology-oriented careers. The launch of targeted campaigns through various media channels, community events, and local gatherings can raise awareness about the importance of digital literacy. These campaigns should emphasise the direct benefits of digital skills in daily life, employment prospects, and access to information. Empowering local leaders, teachers, and community volunteers to act as digital literacy ambassadors can

facilitate the dissemination of information about available digital literacy programs. Utilising local language content and conducting door-to-door campaigns can reach women who might not have access to conventional media. With the introduction of subsidised or free-of-cost digital literacy programmes, providing access to low-cost or refurbished digital devices and offering discounted internet services can make digital learning more accessible. Collaborations between the government, private sector, and NGOs can create financial assistance schemes tailored to women's needs. Initiatives offering microfinance or community-based funding models can help women invest in acquiring digital devices or participating in digital literacy programmes. These models can encourage financial inclusivity and independence among women.

VI. IMPACT OF EMPOWERING WOMEN THROUGH DIGITAL LITERACY AND ICT

Empowering women through digital literacy and ICT has had significant positive impacts on their lives and society. Tripura, a northeastern state in India, has witnessed positive impacts from initiatives aimed at empowering women through digital literacy and ICT. The Tripura State Rural Livelihood Mission (TSRLM) has facilitated digital literacy programmes for women in rural areas. Through various training sessions and workshops, women have gained skills in using computers, accessing the internet, leveraging digital tools for entrepreneurship, and accessing government schemes. TSRLM aims to reduce poverty by empowering rural communities, especially women, through various interventions and programs. TSRLM is about the empowerment of women in rural areas and the mission to recognise the pivotal role women play in rural economies and society. It seeks to enhance livelihood opportunities by providing training, resources, and support for sustainable income-generating activities. TSRLM conducts digital literacy programmes targeted at women in rural areas. These programmes equip women with basic computer skills, internet usage, and knowledge of digital tools. It offers training and support for women entrepreneurs. This includes mentoring, access to resources, and guidance on leveraging digital platforms for business growth. Women are educated and guided on accessing various government schemes related to financial inclusion, healthcare, education, and other social welfare programs through digital platforms. TSRLM focuses on building the capacity and skills of women to enhance their participation in the economy, including sectors such as agriculture, handicrafts, and small-scale industries.

Women participating in TSRLM's initiatives have reported increased confidence, improved access to information, better economic opportunities, and a more active role in decision-making processes within their families and communities. Through digital literacy and ICT training, women have been able to access online resources for education, healthcare information, financial transactions, and market linkages, thereby enhancing their overall quality of life. The Tripura State Rural Livelihood Mission, through its emphasis on women's empowerment and digital literacy, has been instrumental in uplifting rural women in Tripura, fostering their economic

independence, and contributing to the socio-economic development of the state.

Digital literacy enables women to access a wealth of educational resources available online. They can explore diverse subjects, access e-books, academic journals, and educational websites, fostering self-learning opportunities. With digital skills, women can engage with various e-learning platforms offering courses in different subjects, languages, and skill sets. These platforms provide flexible learning schedules, allowing women to balance their educational pursuits with other responsibilities. ICT training can focus on specific skills relevant to education, such as computer proficiency, software applications, online research, and digital communication tools. These skills are crucial for academic success and employment opportunities. Digital literacy facilitates remote learning opportunities. Women in rural areas, who might have limited access to traditional educational institutions, can benefit from online courses, webinars, and virtual classrooms, thus overcoming geographical barriers to education. ICT enables women to utilise educational apps, software, and online tools designed to enhance learning experiences. These tools could include language learning apps, educational games, and interactive educational resources that make learning more engaging and effective. Digital literacy not only benefits learners but also empowers teachers. Educators can access online teaching resources, attend training sessions, and employ digital tools to enhance their teaching methodologies and improve student engagement.

Financial inclusion refers to the availability and accessibility of financial services and products to all segments of society, especially those traditionally underserved or excluded from the formal financial system. This concept aims to ensure that individuals and communities have access to essential financial tools and services that empower them to manage their finances, save, borrow, invest, and participate in the economy. It involves providing access to basic banking services such as savings accounts, checking accounts, and other financial products offered by banks or financial institutions. Access to credit facilities allows individuals to borrow money for various purposes like starting a business, education, housing, or emergencies. The insurance products help mitigate risks associated with health, life, property, and other aspects, providing a safety net against unforeseen circumstances. Ensuring access to affordable and efficient payment systems, including digital payments, mobile banking, and other electronic modes of transactions, facilitates easier and faster financial transactions.

VII. CONCLUDING REMARKS

The empowerment of women through digital literacy and Information and Communication Technology (ICT) initiatives presents a crucial pathway towards fostering gender equality and driving socio-economic development in Tripura. The multifaceted nature of digital literacy extends beyond mere technical proficiency; it encompasses a spectrum of skills essential for women to engage meaningfully in an increasingly interconnected digital world. Women in Tripura encounter persistent challenges rooted in societal norms and cultural

practices that confine them to traditional roles within families and communities. Gender-based discrimination and stereotypes continue to impede women's access to opportunities and decision-making roles. The efforts taken by the government and NGOs have led to improvements in the educational landscape, significantly increasing female literacy rates and facilitating access to schooling. However, high dropout rates, particularly at secondary and higher education levels, and limited access to quality education in rural areas persist as obstacles to sustained educational progress for girls. While women's participation in the workforce has increased, underrepresentation in leadership roles and certain industries remains due to societal and cultural barriers, unequal pay, limited access to resources, and expectations concerning familial responsibilities.

In the realm of technology, although the adoption of ICT is rising in Tripura, women may encounter disparities in accessing and utilising technology due to factors like lack of awareness, limited resources, and entrenched cultural norms. Bridging this gap is critical to ensuring equitable opportunities for women to leverage technology for education, employment, and empowerment. Moreover, women in Tripura face multifaceted challenges related to healthcare, reproductive rights, gender-based violence, and economic disparities, further impacting their overall well-being and opportunities for advancement. Digital literacy and ICT proficiency serve as powerful tools to address these challenges. Initiatives by the governmental, non-governmental, and private sectors play a pivotal role in promoting digital literacy among women. Schemes like the Digital India programme, National Digital Literacy Mission, and state-level programmes focus on empowering women through technology by providing digital literacy training, workshops, and skill development programmes targeting both urban and rural areas. The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), specifically targeting rural women, organises camps and training sessions at the village level to impart basic digital skills, contributing significantly to bridging the digital divide. Non-governmental organisations (NGOs) and private sector initiatives conduct outreach programmes, awareness campaigns, and training sessions specifically targeting marginalised communities and rural areas. These initiatives include setting up mobile digital literacy vans in remote areas, offering hands-on learning experiences, and boosting confidence in utilising digital tools effectively. Educational institutions and community centres host workshops and seminars aimed at enhancing women's digital skills, while skill enhancement programmes in various sectors integrate digital literacy components, enabling women to access market information and healthcare services and showcase their products online.

However, various challenges persist in promoting digital literacy among women in Tripura. Inadequate infrastructure, including power supply and internet connectivity issues in remote areas, remains a significant barrier. Socio-cultural norms and stereotypes often discourage women from pursuing technology-related education or careers, limiting their access to digital tools and opportunities. Awareness about the benefits of digital literacy and the availability of training programmes is lacking among women, especially in rural areas. Economic

constraints further hinder women's ability to afford digital devices or enrol in skill development programmes. To address these challenges and further empower women through digital literacy, concerted efforts are required. Engaging with local communities through awareness campaigns, involving community leaders, and integrating technology-related subjects into school curricula can challenge stereotypes and expose young girls to technology early on. Targeted campaigns, community events, and local media can raise awareness about the direct benefits of digital skills in daily life and employment prospects. Empowering local leaders to act as digital literacy ambassadors and providing subsidised or free-of-cost digital literacy programmes, along with access to affordable digital devices and discounted internet services, can enhance accessibility.

The impact of empowering women through digital literacy and ICT is multifaceted and far-reaching. Initiatives like the Tripura State Rural Livelihood Mission (TSRLM) have significantly contributed to enhancing rural women's confidence, access to information, and economic opportunities. These programmes have enabled women to access online resources for education, healthcare, financial transactions, and market linkages, thereby improving their overall quality of life. Moreover, digital literacy opens avenues for remote learning, allowing women in rural areas to access educational resources, engage in e-learning platforms, and acquire skills crucial for academic success and employment opportunities. Furthermore, financial inclusion facilitated by digital literacy allows women to manage their finances, access credit facilities, and participate more actively in the economy. Empowering women through digital literacy and ICT is a catalyst for societal transformation. By breaking barriers, fostering inclusive opportunities, and enhancing women's capabilities, Tripura can create an environment where women play more active roles in socio-economic growth and contribute significantly to building more equitable and progressive communities.

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