

Digital Literacy Shaping a New Era for Livestock Entrepreneurs in India

Nayandeep Kalita¹ and Leema Bora²

¹MVSc Student, Department of Extension Education, CVSc., AAU Khanapara

²Senior Extension Specialist, Directorate of Extension Education, AAU, Khanapara

Corresponding Author: nayandeepkalita@gmail.com

Introduction

A look across the diverse agricultural expanse of India, from the fertile plains of Punjab to the resilient hill communities of North East India, a quiet revolution is unfolding in the recent decades. The traditional livestock farmers defined by muscle, intuition, and oral wisdom are now blending that heritage with digital agility. Smartphones have become tools of empowerment, livestreamed workshops are replacing word-of-mouth advices and digital platforms are guiding critical decisions on breeding, feeding, management and marketing. This transformation signals not just an evolution in technology use but a fundamental shift in rural enterprise.

Beyond Devices: The Meaning of Digital Literacy

Digital literacy isn't just about access to devices. It's about using those tools to improve livelihoods. A digitally literate farmer checks the weather before grazing, attends virtual trainings on animal nutrition, explores government schemes online, and even sells livestock through e-marketplaces. However, the power of digital tools lies in how they're applied (Sarma et al., 2003). And across the world from East Africa to Latin America studies have confirmed how digital adoption enhances productivity, reduces costs, and encourages sustainable practices (Martins et al., 2017; Ouma et al., 2020).

Global Lessons, Local Triumphs

In this era of digitalization, there is several evidence from all corners of the globe and our country that farmers are adopting digital means to gather farming information. From Kenya to Japan, the digital wave has catalyzed growth among livestock farmers. In Kenya, mobile advisories improved access to disease control tools and markets. Japan's adoption of smart livestock technologies increased efficiency and health monitoring (Yoshida et al., 2023). In India, initiatives like Digital Green and the e-PashuHaath portal are driving digital engagement among farmers, with more than 150,000 trained through video-led learning taking into fold about 70 per cent of women

(Digital Green, 2024). North East India's rapid uptake, especially among tribal groups using digital tools for FPO operations and crowdfunding, illustrates the strong momentum building across even remote geographies.

Adoption of digitally influenced agricultural practices were reported in 83% farmers in Villupuram, Tamil Nadu and 68% farmers in Punjab in different research works (Reshma & Shalini, 2023 and Shehrawat et al. 2024). Further, it was noted that 68% farmers had awareness of mobile phones and 52% used WhatsApp for agricultural advice.

The Entrepreneurial Shift in Livestock Farming

What defines a livestock entrepreneur today is not merely their role in rearing animals, but how they engage with the larger value chain—identifying unmet market demands, optimizing inputs, and scaling through innovation. Digital literacy has proven to be a catalyst for developing key entrepreneurial behaviours. Farmers are now more innovative, adaptable, and willing to explore new markets. They embrace tools for artificial insemination, climate-resilient housing, and mobile veterinary care. Their mindset is proactive; many are seizing opportunities in A2 milk, organic meat, and niche dairy segments. This opportunity-seeking nature is matched by a growing tolerance for risk, supported by access to insurance tools, disease forecasting apps, and financial management platforms.

Moreover, digital literacy strengthens resourcefulness. Farmers are learning to mobilize capital, access credit online, and connect with cooperatives, NGOs, and government programs. Networking too has taken a digital dimension with farmers joining WhatsApp groups, connecting with experts through online forums, and collaborating with agri-startups to scale operations. Market orientation is increasingly visible in how farmers study customer preferences, use social media for popularizing their produce and reach out to potential customers placing their products competitively. Underpinning all this is a deepening focus on persistence and goal orientation.

Whether tracking feed efficiency or planning herd expansion, digital dashboards now guide strategic decisions, helping entrepreneurs stay resilient in the face of market volatility and climate disruptions.

Real Stories: Technology as a Rural Lifeline

Consider the goat cooperative in Assam that livestream workshops on disease prevention or the dairy farmer in Gujarat who uses spreadsheets to calculate feed costs. In Nagaland, women-led self-help groups now raise capital through online platforms. These aren't isolated examples, they're a reflection of how digital engagement is becoming the backbone of rural entrepreneurship. As Kalita & Deka (2018) noted, technology has become a lifeline, helping farmers overcome both geographic isolation and economic vulnerability.

From Access to Agency: The Social Transformation

Digital tools are also reshaping mindsets. Each time a livestock farmer accesses a webinar, applies a new technique learned from a WhatsApp group, or successfully applies for a grant online, their confidence deepens. Youth are being drawn back to agriculture, not as a fallback but as a viable, innovative career path. In the North East, this is especially evident where tech-savvy young entrepreneurs are building agri-startups, many of them led by women, and many leveraging livestock as a foundation for growth.

What's Needed to Sustain the Momentum?

To build on this momentum, we need more than just devices. Rural connectivity must be strengthened. Targeted digital training programs, especially for women and marginalized communities, must be scaled. Content should be locally relevant, multilingual, and accessible through both smartphones and community digital centres. Policy must prioritize integration of livestock extension with digital ecosystems to ensure no farmer is left behind.

Conclusion

Digital literacy is not a side benefit rather it is the central engine of transformation in the livestock

sector. It nurtures entrepreneurial traits, opens doors to markets, and cultivates resilience in uncertain times. As the stories from Assam to Argentina show, when farmers become digitally literate, they don't just build better businesses – they cultivate a future that is smarter, more inclusive and more sustainable.

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