Daily Business Times

Price of Hunger in the Age of Digital Transformation

Dr. Muhammad Shahzad Ashfaq
Post-Doctorate (Peace Education)
International Islamic University
Islamabad



Hunger remains one of the most pressing humanitarian challenges of the twenty-first century, affecting approximately 735 million people globally as of 2025. Paradoxically this crisis persists in an era of unprecedented technological advancement and digital transformation. While digital technologies promise solutions to systemic food insecurity through innovations in agricultural productivity, supply chain transparency and resource distribution. The gap between technological potential and hunger mitigation continues to widen for vulnerable populations. The multi-faceted relationship between digital transformation and food insecurity arguing that while digital technologies offer significant opportunities for addressing hunger. Their implementation has inadvertently created new barriers for disadvantaged communities, leading to what might be termed the digital hunger divide. Understanding this paradox requires analyzing how technological advancement affects food systems, accessibility, and inequality across both developed and developing regions.

The digital transformation of global food systems has fundamentally altered how food is produced, distributed and accessed. According to the Food and Agriculture Organization (FAO) digital technologies such as precision agriculture, artificial intelligence, and block chain have the potential to increase crop yields by 20-30% while reducing resource waste. Precision agriculture, enabled by satellite imagery, drones, and Internet of Things sensors, allows farmers to optimize irrigation fertilization, and pest management with unprecedented accuracy. These technologies theoretically represent a path toward eliminating food waste and expanding production capacity to feed growing populations. However, the adoption of these innovations primarily benefits large-scale commercial operations in developed nations and wealthier developing regions, leaving smallholder farmers who produce approximately 70% of the world's food increasingly marginalized.

The digital divide intersects critically with food security in ways that extend beyond mere technological access. While multinational corporations and large agricultural enterprises leverage digital tools to optimize their operations and increase profitability small-scale farmers in Africa, South Asia, and Latin America often lack reliable internet connectivity to invest in digital agriculture technologies. This technological disparity has paradoxically increased agricultural productivity inequality, concentrating food production resources and profits. Simultaneously, the digitalization of food markets and supply chains has created new forms of market inefficiency for those excluded from digital platforms. Online food marketplaces and e-commerce platforms that promise to reduce food prices through direct producer-to-consumer sales remain inaccessible to rural and low-income consumers lacking smartphones, digital payment systems, or reliable internet access.

The social dimensions of digital transformation further complicate hunger dynamics in modern food systems. Digital platforms have enabled the rise of algorithmic food pricing, where machine learning systems determine prices based on demand prediction, supply constraints and consumer behavior patterns. While these systems theoretically optimize efficiency, they have been documented to disproportionately increase food costs in low-income neighborhoods a phenomenon termed "digital redlining" in food access.

Additionally, the automation of agricultural processes and food distribution systems, accelerated by digital transformation, has displaced workers whose livelihoods depend on traditional food system employment. Rural communities that rely on agricultural labor face reduced employment opportunities, and urban informal sector workers in food vending and distribution have seen their roles diminished by automated warehousing and delivery systems. The resulting income reduction directly correlates with decreased purchasing power and food insecurity for these populations.

Digital financial inclusion represents another critical dimension where transformation intersects with hunger. The expansion of digital payment systems and financial technology has theoretically improved access to credit, insurance, and social welfare programs designed to alleviate food insecurity. However, numerous barriers persist: lack of digital literacy, insufficient documentation for formal financial system participation, and algorithmic bias in creditworthiness assessments systematically exclude marginalized populations from these financial innovations. Rural poor populations, women in developing countries, and ethnic minorities frequently lack the digital infrastructure or credentials necessary to participate in digital financial systems, consequently remaining unable to access digital payment-based social assistance programs or agricultural credit that could improve food security.

The food delivery and e-commerce systems that exemplify digital transformation in wealthy nations further illustrate this contradiction. Platforms such as food delivery applications have proliferated in urban centers globally, creating systems of unprecedented efficiency in food distribution for those with purchasing power and digital access. Simultaneously, these platforms have disrupted traditional food systems and small-scale vendors, often replacing stable, locally- integrated food networks with algorithmically-managed supply chains dependent on low-wage digital labor. Workers in these systems frequently earn insufficient wages to afford adequate nutrition themselves, exemplifying how digital transformation can create conditions of "working poverty" even within the most technologically advanced economies. This represents a fundamental inversion of the promise of digital advancement.

The environmental dimension of digital transformation also impacts hunger dynamics in ways often overlooked. Data centers and digital infrastructure consume vast amounts of electricity, contributing significantly to carbon emissions and climate change. Climate change, in turn, represents one of the most significant drivers of contemporary hunger, causing crop failures, water scarcity, and displacement. The very technologies promoted as solutions to hunger thus contribute substantially to environmental degradation that deepens food insecurity. Developing nations, which contribute minimally to carbon emissions yet suffer disproportionately from climate impacts, face a cruel equation: they are urged to adopt digital technologies for development while simultaneously bearing the consequences of the environmental costs of global digitalization.

Third round of Pak-China Spokespersons' Dialogue held to further strengthen cooperation

STAFF REPORT, ISLAMABAD: The Third Round of Pakistan-China Spokespersons' Dialogue was held here on Monday, between Ambassador Sajjad Haider Khan Spokesperson of the Ministry of Foreign Affairs, and Mao Ning, Spokesperson of the Ministry of Foreign Affairs of China.

"The discussions focused on further strengthening cooperation between the two Foreign Ministries, particularly in the areas of media engagement, strategic communication and public diplomacy," the Foreign Office Spokesperson said in a press release.

Both sides underscored the importance of closer coordination, regular consultations and enhanced exchanges to promote mutual understanding and further deepen the longstanding friendship between Pakistan and China.

During her visit, Mao Ning also called on Deputy Prime Minister/ Foreign Minister Senator Mohammad Ishaq Dar. The Chinese Ambassador to Pakistan also attended the meeting.



The DPM/FM reaffirmed Pakistan's firm commitment to further strengthening the Pakistan-China All-Weather Strategic Cooperative Partnership, rooted in mutual trust, respect and unwavering support for each other. He emphasised the importance of enhanced media cooperation, strategic communication and public diplomacy in advancing bilateral relations and fostering closer people-to-people ties.

Both sides expressed satisfaction with the ongoing cooperation between their Foreign Ministries and reiterated their commitment to maintaining close coordination and regular engagement under the Spokespersons' Dialogue mechanism. The second round of dialogue was held virtually in October 2022.

NBF, Azerbaijan's Gadim Gala Publishing House explore publishing, literary cooperation

STAFF REPORT, ISLAMABAD: National Book Foundation (NBF), Ministry of Federal Education and Professional Training, Government of Pakistan, held a meeting with Jamila, a representative of Azerbaijan's Gadim Gala Publishing House, on the sidelines of the Baku International Book Fair 2026. The meeting focused on exploring opportunities for literary cooperation, book publishing, and introducing Azerbaijani literature to Pakistani readers. During the meeting, Jamila shared details of five psychological novels published by her publishing house and expressed her interest in introducing these works to the Pakistani market, said a message received here on Monday. As an initial step towards collaboration, she presented the novel This City Is Empty by Azerbaijani novelist Rovshan Abdullaoglu to the National Book Foundation for consideration as a potential publication in Pakistan.



The NBF representative welcomed the proposal and informed her that the submitted novel would be placed before the Foundation's competent board for review and consideration. Subject to the board's approval, the National Book Foundation will explore the possibility of publishing the novel in Pakistan, providing Pakistani readers with an opportunity to engage with contemporary Azerbaijani literature.

The meeting also highlighted the importance of translation, literary exchange, and cooperation between publishing houses in strengthening cultural ties between Pakistan and Azerbaijan. Both sides expressed interest in exploring avenues for introducing the literary works of each country to readers in the other.