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BEYOND ALGORITHMS: HOW FAITH TRADITIONS ENVISION HUMAN DIGNITY IN A DIGITAL WORLD

Fr Bala Kiran Kumar Hrudayaraj SJ
St Josephs University, Bengaluru
balakiran.kumarsj@sju.edu.in
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Abstract
India's digital transformation is reshaping everyday life at remarkable speed, yet its benefits and risks are unevenly distributed. This paper examines the promise and paradox of India's digital economy through the lens of Catholic Social Teaching (CST). It opens with four real-life accounts: a street vendor who gains access to formal credit through UPI, an elderly widow who regains independence through digital pension transfers, a young man driven into cybercrime after losing his livelihood, and a gig worker subject to opaque algorithmic control. It then reviews the Digital India Mission and its achievements in financial inclusion, governance, education, and healthcare. It also considers persistent problems, including gender and rural digital divides, cyber threats and digital violence, and job displacement caused by automation. Drawing on three CST principles (human dignity, the common good, and participation), the paper argues that evaluating digital transformation requires moving beyond the question of what technology can do to what it should do for the human person and for society. It proposes shifting from digital access to digital agency, meaning the capacity to make informed choices, protect personal data, benefit economically, challenge unfair decisions, and shape the rules of the digital economy. It also outlines the shared responsibilities of the State, businesses, universities, civil society, and faith communities. The paper concludes that a humane digital economy should be measured not by transaction volumes or market valuations, but by whether it advances dignity, inclusion, and sustainable human flourishing.
Keywords: *digital economy; human dignity; Catholic Social Teaching; common good; digital inclusion; platform work; India*

1. Introduction

I would like to begin by expressing my sincere gratitude to the management and the organisers of this international conference, and in a special way to Fr. Marwan, for the kind invitation. My presentation will unfold in three parts. First, I will share a few real-life experiences drawn from personal encounters. These stories will help us see how digital technology is already reshaping ordinary lives in India and how it is creating new opportunities, restoring independence, improving security, and opening access to financial and public services. Second, I will offer a brief overview of the Indian digital economy, reflecting on both its promise and its paradoxes. Digital transformation has made remarkable contributions to financial inclusion, governance of public services, education, healthcare, and entrepreneurship. At the same time, it has generated new forms of exclusion, surveillance, cybercrime, digital violence, unemployment, and insecurity. The same technology that empowers one person may leave another vulnerable. Finally, I will draw upon the principles of Catholic Social Teaching (CST) and apply them to the Indian context. In particular, I will focus on the principles of human dignity, the common good, and participation. These principles invite us to move beyond the question of what technology can do and to ask a more fundamental question: What should technology do for the human person and for society?

My purpose is not to reject digital transformation, nor to celebrate it uncritically. Rather, I hope to propose a moral and human-centred framework for evaluating it. Catholic Social Teaching reminds us that every person possesses an inherent dignity, that economic and technological progress must serve the common good, and that people must be active participants, not merely consumers, data points, or replaceable units of labour.

My Experience of Digital Economy

I would now like to turn to a few personal experiences and encounters that illustrate how deeply digital technology has entered everyday life. I remember travelling from Bengaluru to Delhi for the first time in 2017. I carried ₹10,000 in cash to meet all my travel expenses—taxi

fares, food, drinks, local travel, visits, and purchases. Within two days, I had spent the entire amount in cash. Two months ago, I made a similar journey to Delhi. This time, I carried my smartphone along with ₹15,000 in cash. Surprisingly, I did not spend any cash at all. I was able to make every payment through my smartphone.

One experience particularly stayed with me. After a late-night journey, I offered the taxi drive ₹1,000 in cash. He refused to accept it and insisted that I pay him through PhonePe. He explained that it was unsafe for him to carry cash late at night. This small incident revealed a significant transformation. Digital payments are not merely making transactions faster; they are also changing people's relationship with money, safety, and mobility. Yet the impact of this transformation becomes even clearer when we listen to the experiences of ordinary citizens.

Raju: From cash insecurity to financial inclusion

Raju is a street vendor in Bengaluru who runs a small tea stall. Like many informal workers, he once struggled to access formal banking and credit. Banks don't lend money without the credibility. Whenever he needed money to purchase supplies or repair his stall, he depended on local moneylenders who charged extremely high rates of interest. That situation began to change when he started accepting payments through UPI. Every transaction received through his merchant account created a digital record of his daily business activity. Over time, these records demonstrated a consistent and verifiable cash flow. Banks and non-bank financial institutions could now see evidence of his business. As a result, Raju became eligible for small working-capital loans at more reasonable interest rates. Gradually, he began to move from the informal credit trap into the formal financial system. Digital payments also improved his personal safety. Raju often works late into the night. In the past, he had to carry his earnings home, making him vulnerable to theft and robbery. With UPI, the money is transferred directly into his bank account in real time. He can leave his stall without carrying a large amount of cash. This has not only reduced his physical risk; it has also given him peace of mind. He can concentrate on his business rather than constantly worrying about the safety of his earnings.

Lakshmamma: Restoring dignity and independence

Lakshmamma is a seventy-two-year-old widow living in a small village. Every month, she had to travel several kilometres to the bank to withdraw her pension. As walking became increasingly difficult, she had to depend on a neighbour or relative. Sometimes, after making the difficult journey, she was asked to return another day. She faced similar difficulties in accessing healthcare benefits and insurance documents. Files moved slowly, information was unclear, and she was sometimes pressured to pay unofficial fees simply to get basic services. Since she could not easily visit several offices or challenge officials, she often felt helpless. Digital services gradually began to change her life. Her pension was transferred directly into her bank account, reducing dependence on intermediaries and limiting opportunities for delay and corruption. With the help of her grandson, she learned to use a smartphone and check her account through mobile banking. She could receive a message when her pension arrived, renew her insurance, obtain health-related information, and purchase medicines without travelling long distances. For Lakshmamma, digital access was not simply a matter of convenience. It restored a measure of independence and dignity. It enabled her to receive what was already hers without having to depend entirely on the goodwill of others.

Shakil: When digital access becomes digital vulnerability

However, the digital economy also reveals a darker and more troubling reality. At the age of twenty-four, Shakil carried the responsibility of supporting his family. He worked at a stone-crushing plant and hoped to pay his diabetic father's medical expenses and provide for the marriage of his sister, Shabana. When the pandemic struck in 2020, he lost his job. His family's financial situation became desperate. In the midst of this crisis, Shakil turned to cybercrime. Two months after his sister's marriage, he was arrested by the Haryana Police.

Several mobile phones were found in his possession. The police alleged that he had used them to record and circulate pornographic material, send threatening messages, and blackmail unsuspecting victims. His arrest formed part of a larger investigation into a cybercrime network operating in the Nuh region of Haryana. According to police reports, the network had allegedly defrauded thousands of people of a very large sum of money.

Ravi: The insecurity of platform work

Ravi works as a food-delivery worker (Gig worker). He spends nearly twelve hours a day on the road. He has no fixed salary; he is paid according to the number of orders he completes. Rain, traffic congestion, rising fuel prices, and vehicle maintenance costs directly reduce his earnings.

His livelihood can also be affected by customer ratings and algorithmic decisions. A sudden decline in ratings or a complaint may lead to the suspension of his account. Yet he has little opportunity to explain his situation or appeal the decision. Ravi has no paid leave, health insurance, or guaranteed compensation if he is injured in an accident. Although the platform describes him as an "independent partner," he cannot meaningfully negotiate his wages or refuse unfair conditions. If he stops accepting orders, he risks losing the income on which his family depends. Ravi's experience exposes a central paradox of the digital economy. Digital platforms create employment and connect consumers with services. At the same time, they can conceal deep inequalities behind the language of flexibility and independence. Ravi may be called a partner, but in practice he often has little control over the terms of his work. His movements, performance, earnings, and access to employment are shaped by an algorithm that he cannot see and cannot negotiate with.

These four personal experiences highlight both the promise and the paradox of digital transformation. Digital technology can make life safer, more efficient, and more inclusive. It can help a street vendor access formal credit and enable an elderly woman to receive her pension with dignity. But it can also facilitate cybercrime and create new forms of economic insecurity. The central question, therefore, is not whether we should accept or reject technology. The more important question is: What kind of human relationships, institutions, and society are we creating through technology?

India's Digital Transformation

Going by these examples, we can affirm that the Indian economy is undergoing one of the most remarkable digital transformations of modern times. Technology has moved beyond corporate offices and urban centres and reached remote villages, largely due to the smartphone revolution and affordable internet access. It has reshaped the economy through online banking, UPI payments, e-commerce, online education, and telemedicine. India has one of the world's largest internet and smartphone markets, with approximately 958 million active internet users, and is emerging as a global leader in technological innovation.[1]

The COVID-19 pandemic became a watershed moment in India's digital journey. Digital platforms helped many businesses and essential services to survive. Students attended online classes, governments delivered welfare schemes, and citizens accessed services without physical contact. Technology also simplified economic transactions, with India's digital-payment ecosystem accounting for billions of transactions every month.

[1] Ministry of Electronics and Information Technology, *Digital India: Power to Empower*, https://www.digitalindia.gov.in/, accessed on 30.08.2026.

The Digital India Mission (DIM), launched in July 2015, has played an important role in this transformation.[2] It has evolved from a policy vision into a force that empowers citizens and reshapes governance. Its aim is to create a digitally empowered society and a knowledge-based economy. The mission focuses on three interconnected goals: strengthening digital infrastructure, delivering government services digitally, and empowering citizens through digital literacy and employment.

As India pursues its vision of developed India (*Vision of Viksit Bharat 2047*), the Digital India Mission has become a cornerstone of national development. It connects technological progress with economic growth while seeking to promote equitable digital access. Through foundational digital infrastructure and services, it has contributed to India's emergence as a global leader in digital governance and innovation.

The architecture of the Digital India Mission was organised around nine pillars: Broadband Highways, providing high-speed internet connectivity; Universal Access to Mobile Connectivity, extending networks to underserved regions; Public Internet Access, strengthening Common Service Centres and post offices; e-Governance, simplifying and integrating government processes through platforms such as Aadhaar and PayGov; e-Kranti, delivering digital services in health, education, and agriculture; Information for All, promoting transparency and citizen engagement through platforms such as MyGov; Electronics Manufacturing, encouraging domestic production; IT for Jobs, promoting digital skills and employment; and Early Harvest Programmes, delivering immediate results through initiatives such as university Wi-Fi and biometric attendance systems.[3]

The Promise and Paradox of the Digital Economy

The digital revolution has created enormous opportunities, but it has also produced unequal access to technology, affecting education, healthcare, finance, and employment. Although a large majority of households now have internet access and smartphones, significant gender and rural divides remain. In rural India, many women do not own smartphones, and the gap is particularly wide among women between the ages of thirty and forty-four. The concern, therefore, is shifting from simple access to meaningful digital participation.[4] A smartphone is not merely a device; it is a gateway to essential financial, educational, healthcare, and government services. Closing the gap in digital capability is consequently as important as providing connectivity. The United Nations recognises this need by linking digital inclusion and gender equality with the Sustainable Development Goals.

Cyber Threats and Digital Violence

The expansion of the digital economy has also brought an increase in cyber threats and digital violence. These include AI-driven phishing, automated fake messages and voice notes, fraudulent investment schemes, password theft, ransomware, social-media abuse, deepfakes, image manipulation, digital sextortion, stalking, and the unauthorised sharing of intimate content. These developments remind us that digital access without digital safety can create new forms of vulnerability. Technology must therefore be accompanied by awareness, accountability, privacy protection, and effective legal safeguards.

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[2] Basu Candola, Sauradeep Bag, Debajyoti Chakravarty, and Tanusha Tyagi, "A Decade of 'Digital India Mission': Achievements, Gaps, and the Way Forward," ORF Special Report No. 271, Observer Research Foundation, August 2025.

[3] Basu Candola, Sauradeep Bag, Debajyoti Chakravarty, and Tanusha Tyagi, "A Decade of 'Digital India Mission': Achievements, Gaps, and the Way Forward," 2-4.

[4] Ravinder Rena, India's Digital Economy Opportunities, Challenges, and the Road Ahead," *Current Research Journal of Social Sciences and Humanities*, Vol. 09, No. (1) 2026, Pg. 01-04

Unemployment through Automationz

Automation is another major challenge. Approximately eight million people enter the Indian workforce every year, while routine entry-level roles are increasingly being affected by artificial intelligence and automation. Software development, customer service, accounting, data entry, and other repetitive tasks are undergoing significant change. India is also witnessing a contraction in some forms of white-collar employment. Although technology may create new opportunities, workers without access to reskilling and social protection may face greater insecurity. The digital economy, therefore, carries both promise and paradox. It can expand opportunity, improve public services, and strengthen inclusion. But without ethical safeguards, it can also deepen inequality, enable new forms of violence, and displace vulnerable workers. The essential question is whether digital transformation will merely make systems more efficient—or whether it will genuinely enable people to live with greater dignity, security, and participation.

Applying Catholic Social Teaching to India's Digital Economy

The question before us is not whether India should embrace digital technology. That question has already been answered. India is digitising rapidly—from UPI payments and digital public services to telemedicine, online education, artificial intelligence, and platform work. The more important question is: What kind of digital economy do we want to build, and whom is it meant to serve? Catholic Social Teaching offers three principles to guide this conversation: human dignity, the common good, and participation. These principles do not reject technology. Rather, they place technology within a moral vision of the human person.

Human dignity: Every person is more than a digital identity

The first principle is human dignity. In the Christian understanding, every person is created in the image of God.[5] Therefore, a person's value cannot depend on purchasing power, productivity, online reputation, credit history, algorithmic scores, or employment status. This has direct implications for India's digital economy. The experience of Raju, the tea-stall owner, illustrates the positive potential of digital technology. UPI enables him to receive payments securely, create a financial record, and gain access to formal credit. It reduces the risks associated with carrying cash and makes his work more visible to financial institutions. In this case, technology serves dignity because it expands Raju's agency, security, and economic opportunity.

But technology can also undermine dignity when a person is treated merely as data. Lakshmamma's digital pension transfer can restore her independence and reduce her dependence on intermediaries. Yet digital delivery is not truly dignified if she cannot understand the system, correct an error, obtain assistance, or appeal a decision. A service is not genuinely inclusive simply because it is available online. It must also be accessible, comprehensible, safe, and responsive.

A dignity-centred digital economy must therefore ask: Can people access essential services without surrendering unnecessary personal data? Can they understand how decisions affecting them are made? Can they challenge an automated decision? Can women, older persons, persons with disabilities, migrants, and people with limited literacy use the system independently? Is there always a human avenue of assistance when technology fails?

The principle of dignity also requires protection from digital violence. Cybercrime, deepfakes, online sexual exploitation, identity theft, fraud, and harassment are not merely technical problems. They are assaults on the person. Victims are not damaged "accounts" or compromised "profiles"; they are human beings whose privacy, bodily integrity, reputation, and

[5] Leo XIV, *Magnifica Humanitas*, § 50, Encyclical, May 2026, https://www.vatican.va/content/leo-xiv/en/encyclicals/documents/20260515-magnifica-humanitas.html

relationships have been violated. A dignity-based approach therefore demands strong data protection, responsible artificial intelligence, effective cybercrime prevention, digital-safety education, and meaningful remedies for victims. It also requires technology companies to accept responsibility for the social consequences of the systems they design.

The common good: Digital infrastructure must benefit society as a whole

The second principle is the common good. The common good is not simply the total number of digital transactions or the growth of the technology sector. It refers to the social conditions that enable all people—and the whole person—to flourish.[6] India's digital public infrastructure has demonstrated how technology can contribute to the common good. Digital payments can reduce transaction costs. Direct transfers can lessen dependence on intermediaries. Online health and education services can overcome geographical barriers. Digital platforms can connect small producers with consumers. These are important achievements. However, the common good requires us to ask who benefits, who bears the risks, and who remains excluded.

If digital transformation benefits urban consumers but excludes rural women, it is incomplete. If it creates convenience for customers while transferring uncertainty to delivery workers, it is unjust. If automation increases productivity while leaving millions without skills, social protection, or alternative employment, it cannot be called sustainable transformation. If data and algorithms are treated as private property without regard for their social effects, the common good is weakened. Data, algorithms, and digital platforms have become forms of contemporary social infrastructure. Their ownership may be private, but their consequences are public. A platform that influences access to credit, employment, welfare, education, or healthcare exercises significant social power. Such power must be governed in the public interest.

For India, this means that digital development should include: affordable and reliable connectivity in rural and underserved regions; public investment in digital literacy, especially for women and older citizens; strong safeguards for personal data and informed consent; transparent and accountable use of artificial intelligence; interoperability and open standards to prevent excessive concentration of power; accessible grievance-redressal mechanisms; social protection for workers in the platform economy; reskilling and lifelong learning for workers affected by automation; and environmental responsibility in data centres, electronic manufacturing, and digital infrastructure.

The common good also includes future generations. Digital transformation must therefore be environmentally sustainable. The expansion of data, devices, and artificial intelligence requires energy, minerals, and infrastructure. We must ask whether technological progress is increasing ecological destruction, electronic waste, and resource inequality. A sustainable digital economy must protect not only today's users but also the natural world and those who will live tomorrow.

Participation: People must be co-creators, not passive users

The third principle is participation. Human beings have a right and responsibility to contribute to the economic, social, cultural, and political life of their communities.[7]

[6] Pontifical Council for Justice and Peace. *Compendium of the Social Doctrine of the Church*, https://www.vatican.va/roman_curia/pontifical_councils/justpeace/documents/rc_pc_justpeace_doc_20060526_compendio-dott-soc_en.html

[7] Pontifical Council for Justice and Peace. *Compendium of the Social Doctrine of the Church*, https://www.vatican.va/roman_curia/pontifical_councils/justpeace/documents/rc_pc_justpeace_doc_20060526_compendio-dott-soc_en.html

Participation is more than access. A person may possess a smartphone and still lack meaningful participation if she cannot understand an application, afford data, protect herself from fraud, or influence decisions that affect her life. This is especially important in India, where digital systems increasingly mediate access to welfare, employment, finance, education, and public services. Digital inclusion must therefore move beyond the question, "Who is connected?" and ask, "Who can participate meaningfully, safely, and with dignity?"

Lakshmamma's experience shows that digital participation can increase independence. But her participation should not depend entirely on her grandson or a local intermediary. She needs accessible interfaces, regional-language services, voice-based assistance, disability-friendly design, and reliable human support. Otherwise, the digital system may reproduce the very dependency it was intended to remove.

Participation also has a gender dimension. When women do not own or control smartphones, they are denied access to financial services, education, employment opportunities, health information, and public life. Digital inclusion must therefore address not only infrastructure, but also affordability, safety, digital skills, household power relations, and women's control over devices and accounts.

The principle of participation is equally relevant to Ravi, the food-delivery worker. He may be described as an "independent partner," but in practice the platform can determine his access to work, income, ratings, and even continued participation. He participates in the digital economy, but may have little voice within it. This reveals the difference between participation as inclusion in a platform and participation as power, voice, and agency.

A just platform economy would provide workers with: transparent information about wages, ratings, and account suspension; the right to receive an explanation and appeal an automated decision; collective representation and freedom to organise; fair remuneration that recognises waiting time, fuel costs, and occupational risks; accident insurance, health protection, and social security; and meaningful consultation in the design of platform rules. Workers should not be reduced to inputs in an algorithm. They must be recognised as participants in economic life, with rights and responsibilities.

From digital access to digital agency

These three principles lead us from a narrow understanding of digital inclusion to a broader idea of digital agency. Digital access asks: Does a person have a device and an internet connection? Digital agency asks: Can the person use the technology effectively? Can the person make informed choices? Can the person protect personal information? Can the person benefit economically? Can the person challenge unfair decisions? Can the person help shape the rules of the digital economy? This distinction is crucial for India as well as the other south Asian economies. The country has built remarkable digital systems, but infrastructure alone cannot guarantee justice. Digital transformation becomes human transformation only when people gain greater freedom, security, voice, and capacity to flourish.

The responsibility of institutions

Catholic Social Teaching also reminds us that responsibility does not rest with individuals alone. The State, businesses, civil society, educational institutions, families, and faith communities all have important roles to play. The State must ensure that digital systems do not become instruments of exclusion or surveillance. Businesses must move beyond formal compliance and ask whether their products respect human dignity and promote the common good. Universities must prepare students not only to use artificial intelligence but also to judge its consequences ethically. Civil society must represent those who remain invisible in technological decision-making. Faith communities can: provide digital literacy and support to

vulnerable communities; create safe spaces for people facing cyber abuse and exclusion; advocate for the rights of informal and platform workers; promote ethical reflection among students, entrepreneurs, and policymakers; remind society that efficiency is not the same as justice; and insist that the poor, the elderly, women, migrants, and persons with disabilities remain visible in public policy. Faith traditions bring a language that economics and technology can sometimes lose: the language of compassion, responsibility, solidarity, conscience, and the sacredness of the person.

2. Conclusion

The stories of Raju, Lakshmamma, Shakil, and Ravi show that digital transformation is neither automatically liberating nor automatically oppressive. It can expand opportunity, restore independence, and protect human life. It can also intensify exclusion, enable exploitation, and magnify harm. The difference depends on the values that shape technology and the institutions that govern it. Catholic Social Teaching offers a clear moral test: Human dignity: Does this technology respect the person as an end, never merely as data, labour, or profit? The common good: Does it create social conditions in which all people—and the whole person—can flourish? Participation: Does it provide not only access, but also voice, agency, protection, and power to shape the systems that affect people's lives? The digital future of a country should not be measured only by the speed of transactions, the number of users, or the valuation of technology companies. It should also be measured by whether the poorest person can access justice, whether the elderly can live with independence, whether women can participate equally, whether workers can earn a dignified livelihood, and whether every citizen can engage in public and economic life without fear. The task before us is not simply to build smarter algorithms. It is to build a more humane digital economy, one in which technology becomes an instrument of solidarity, inclusion, and sustainable human flourishing. Beyond algorithms, we must recover the human person. Beyond connectivity, we must build communion. And beyond digital growth, we must pursue the common good.

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