

The Evolution of Ethical Economics: Bridging Historical Ideas and Digital Realities

Karunaanithy K.^{1,*}

¹Dept of Economics, Faculty of Arts, University of Jaffna

*Corresponding author: kkamal.univ.jfn.ac.lk

Abstract

History of economic thought cover set of theories, doctrines, laws, and generalizations and analyses applied to the study and solution of economic phenomena and problems. It also offers ethical and institutional perspectives for understanding the digital economy, where production, exchange and value creation are driven by digital technologies and data. This paper with an objective to trace the evolution of ethical economics from ancient civilizations to the digital age by applying historical textual analysis. This paper emphasizes the enduring relationship between moral philosophy and economic behaviour, across history through the lens of history of thought. Economic systems have been guided by ethical principles of justice, reciprocity, and human welfare, even as their institutional forms evolved, from the ancient economies to today's algorithmic digital economies. Economic thought from the ancient world, classical political economy, and modern welfare theories, is revisited this study, to demonstrate how moral concerns remain throughout history. It links how questions of equity and cohesion were addressed by economic thought in different era, which is underexplored in studies of digital economies. It argues that ongoing digital transformation—marked by data capitalism, artificial intelligence, and automation—demands a revival of ethical reflection rooted in historical wisdom for a healthy transition. As the success of digital technologies depends on fulfilling the demand of the people in a sustainable manner, it is necessary to focus on ethics in economic behaviour in the context of digital economy. As aligning technological progress with human dignity, social equity, and collective well-being is essential to counterbalance the negative consequence of digital economy, this paper could help to safely navigate through the emerging socio-economic challenges of digital economy while formulating policies. The paper concludes by proposing a framework for a digital moral economy, where moral principles of history of economic thought can guide ethical behaviour.

Keywords: Data capitalism, Digital moral economy, Ethical economics, History of economic thought

Introduction

In this era of information, digital economy is permeating every sector of society. Traditional mode of production, exchange, and human interaction are undergoing revolutionary changes. (Suhendra et al., 2025). Instead of linear, labour-intensive processes, the transformation is towards, networked, data driven intelligent digital systems. However, behind the promises of efficiency and connectivity of the digital economy, lies an ethical void – in the form of labour misallocation, widening inequality, lack of accountability, productivity-wage mismatch, environmental and social costs. In addition, issues such as data pri-

vacuity, algorithmic bias, and digital exclusion created by digital economy, expose the boundaries of value systems built which focus exclusively on utility (efficiency) and growth (expansion).

These systems, which rely on AI, block chain, cryptocurrencies and digital payment systems not only pose security risks and moral problems, but also governance issues (Ogunmola, 2025). To adapt to these ethical challenges, the objective of this study to seek the answer, to the question 'What is there to be offered by history of economic thought to the ethical challenges posed by the digital economy?'

To answer the question meaningfully, this historical comparative study, looks backward as well as



forward. The ethical dimension of economics—long before its mathematization and economics take the form of social science—has been a consistent concern across civilizations. Ethical economics can be defined as the study of the application of moral values to economic activities, such as, production, distribution and consumption.

From ancient codes of fairness in early thinkers to Enlightenment moral philosophy of medieval period, economic behaviour has always been tied to questions of justice, obligation, and virtue (Sunny, Jeronen, & Lan, 2025). Though modern economic thought is called amoral and self-centric, different schools of thought are not value free – they integrate ethical concepts such as sustainability, welfare, climate justice, stewardship, social responsibility and fairness at their core (Kalra, 2024). This paper explores how those moral underpinnings evolved over time in economics and what they offer to the digital era. To give more clarification, this paper is structured into four parts: in the beginning, the literature review section covers the moral thought from ancient to modern periods; next, it proceeds to methodological section that outlines the historical comparative approach of moral concepts in economic thought. The results section offers evidence on the changes of historical morality and digital behaviour. Finally, the paper ends with digital moral economy framework which rests on four main pillars: justice, reciprocity, welfare and virtue. The framework that bridges these periods and reconciles historical principles with current ethical dilemma can manage resources and ensure ethical behaviour in digital economy.

Literature Review

Since human society is a complex phenomenon, the forces work at time may vary and the investigations of the pertinent causes at work differ across time. As opined by Bhatia (1981), the responses of economic units (individuals, households, firms, governments) vary according to circumstances, as per the prevailing moral, political, religious, and social philosophy and institutions of the society. A survey of the history of economic thought reveals that economic ideas are conditioned by time, place and circumstances.

For instance, early economic reflection was rooted in ethics and moral philosophy. Over time, economic thought detached itself from 'virtuous living' and entered an ethical dilemma due to the shift toward rationality and self-interest (Bruni & Sugden, 2013a). Later, thinkers such as Karl Marx countered that the responses of firms and workers are not simply rational choices, but are dictated by the institutional structure of capitalist property relations, which create systemic exploitation. In the 20th century, the role of institutions was formalized by thinkers who argued that legal systems and social norms structure economic behaviour. As opined by Zuboff (2019), the current revolution in technology, in the form of artificial intelligence, robotics, automation and big data, is having its impact on ethics and morality in unprecedented scale and scope. Therefore, the literature review is structured into foundations of moral economy, human centred economics and welfare perspectives, and finally ethical challenges of digital capitalism.

Ancient Ethics and Foundations of Moral Economy

Ethics in ancient economic thought is mostly embedded in religious teachings, codes of law, and moral urgings. In biblical communities, as opined by Mehari (2002), the economic thoughts were against abuses of trade and greed. Measures were developed to protect the society by using justice and mercy. Economic framework of Old Testament explains the divine ownership of land, where land is not a private property, which controlled excessive wealth accumulation. This standpoint is strengthened by the freeing up of slaves and debt forgiveness in the Sabbath and jubilee year, creating a 'social reset' mechanism. Unlike today's profit-oriented market economy, these ethical laws protect the vulnerable and avoided generational poverty (Adasi-Bekoye, 2024).

Transition Towards Human Centred Economics

The transition from an ethical society to a wealth-accumulating one was marked by a shift in production from subsistence to exchange value. The "restructuring" was not a singular event at a time; but the gradual replacement of the feu-

dal lord-serf dynamic in medieval period with the employer-employee relationship in modern era. The transition started with the renaissance and reformation, finalized by the emergence of market competition as the governing logic of Western civilization (Fiveable, 2024); trade became as a catalyst of growth; Individual potential, and achievements through hard work were promoted. The upward mobilization of merchants and development in mercantilism and the changes in political economic thought prescribed that wealth accumulation and levying interest rates were not sins. This changing thought reflected in the ethical and moral values of the economic thinking. Also boosted by technological development and industrial revolution (Berg, 2015; Chen & Jie, 2025; Salminen et al., 2023). Technology continues to shape the landscape of economic development, offers fresh prospects for businesses and individuals while introducing new obstacles in the form of ethical and moral challenges. Advancements in technology have driven the rapid rise of the digital economy, where business predominantly occurs online, opening new avenues for economic activity, enabling businesses to reach global markets and customers with ease and scale. While the traditional models of employment, development and governance must change, it is crucial that governments, businesses, and individuals focus on ensuring the ethical implications of their actions.

In sum, research on ethical economics accept the importance of historical continuity and ethical re-orientation to counteract digital capitalism. For instance, Irshad, Naz, & Sharif (2025) analysed the intersection of moral economics with power and digital ethics. Works of Sen (1999), Stiglitz (2019), and Raworth (2017) emphasized economics should be human-centred. Polanyi (1944) and Thompson (1971) identified the decline of moral values during industrialization in their historical studies, while Zuboff (2019) on the other hand, argued, in this digital age, human experiences are commodified. A study done Zhytnik (2025) on moral values and advancements in technology, found that ethics in traditional economics is challenged coupled with social cohesion.

However, studies connecting ancient to modern historical economic principles and contemporary digital capitalism are lacking. Current literature

notes a gap where digitalization is driven by efficiency rather than ethical considerations, highlighting a need for research that reconnects economic activity with moral philosophy. This needs a bridging methodology that translates virtue ethics or ancient justice principles into actionable digital governance. Therefore, this study addresses the gap: How can historical traditions of ethical economics can inform the creation of an ethical digital economy?

Methodology

The study inevitably embraces qualitative interpretivist philosophy to bring out the ethical and moral foundations of economic thinking across different periods of time. The historical-comparative research design helped to integrate textual analysis and conceptual synthesis. The method also combines documentary analysis to trace the evolution of economic thought from ancient moral philosophy to present digital capitalism. Thematic coding on moral economy and digital ethics helped to examine the shift from virtue-based household economy in the olden days to algorithmic governance at now. The historical-comparative approach used in analysing and interpreting the contents helped to bridge the economics and digital studies and paved way to a synthesised understanding of ethical economics.

Results and Discussions

Ethical Foundations in Ancient Economic Thought

Origins of Economic Justice: the history of economic thought is broader than the history of the science; one part of it begins with the economic ideas prior to any science; while the other starts with the rise of political economy or the science of economics (Mehari, 2002). Though civilizations existed in the East and west, the earliest written economic records are from Sumeria and Babylonia. Those tablets reveal code of conduct and moral considerations in trade, property, and debt. The Code of Hammurabi (c. 1750 BCE) explicitly linked commerce with justice, regulating interest rates, protecting debtors, and preventing exploitation. Economic life was viewed as part of

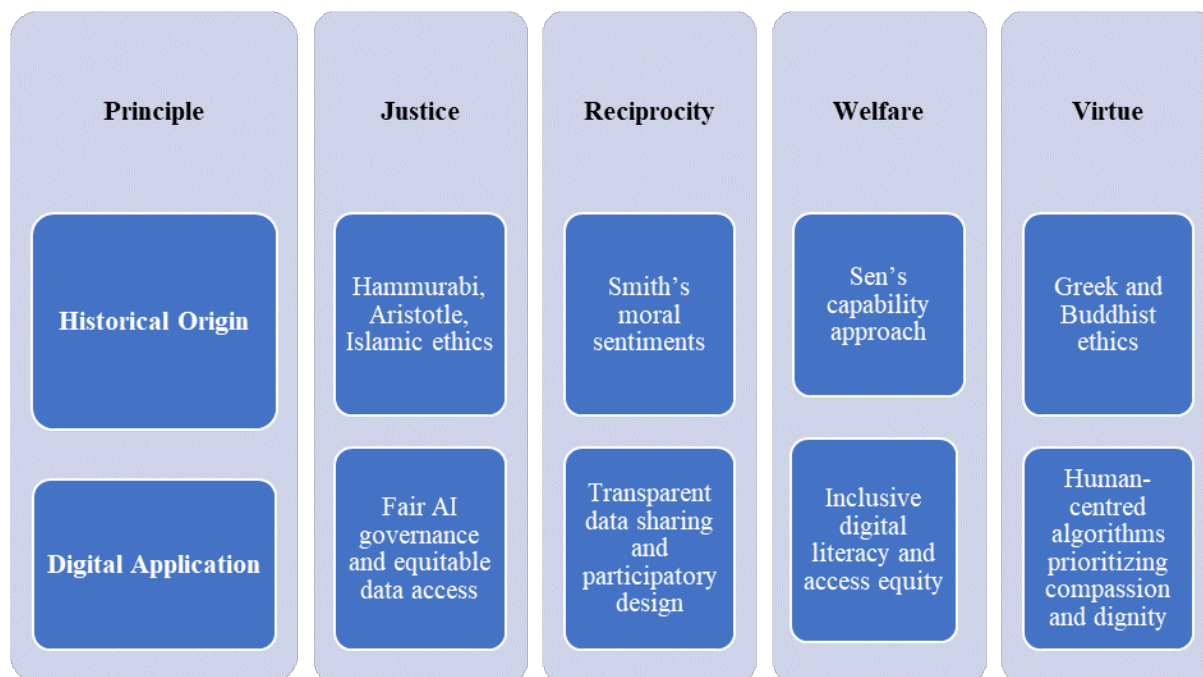


Figure 1: Digital Moral Economy Framework

a cosmic moral order maintained by divine justice (mīśarum) (Hudson, 2018). Thus, the concept of economy was rooted in a pre-determined agenda of social customs and not understood as an autonomous domain of human intervention. This reveals that economic systems, even in their earliest arrangements, were not purely transactional; they were ethical arrangements intended for preserving social harmony.

Greek Thought: The Ethical Limits of Exchange

In ancient Greece, oikonomia (οἰκονομία) means 'house' and 'manage', being the term for household management in the broad sense; it means a moral art of managing the household (oikos) for the flourishing (eudaimonia) of all its members. Economics was inseparable from ethics and politics, since both disciplines aimed at achieving the good life (euzōia) through moderation and virtue. This was inevitable, due to the changing socio-economic and political landscape of that time. Aristotle, in Politics and Nicomachean Ethics, made a crucial distinction between oikonomia, the natural and ethical use of resources for living well, and chrematistics, the pursuit of wealth as an end. For Aristotle, the former served the moral order of the polis, while the latter repre-

sented a corruption of purpose—a “perversion” that violated natural justice. He discouraged the excessive accumulation of wealth as it detached from moral and communal aims; also, it undermined social harmony. Aristotle claimed, “wealth is evidently not the good we are seeking; for it is merely useful and for the sake of something else” (Nicomachean Ethics, I.5).

Plato wrote The Republic, as an attempt to explain the ethical question, ‘what is justice? He disliked commercialism as it leads to corruption and misery. Plato ingrained economic order in the moral structure of the soul and the justice of the polis. His just city (the Kallipolis) was one in which each class of society accomplished its proper function in accordance with virtue; rulers governed with wisdom, warriors with courage, and producers with moderation. Economic life, in this hierarchy, was governed by moral and philosophical ends. Wealth accumulation was acceptable if it keeps society stable with ethical character.

Plato wanted people to be free from desire for wealth, as it corrupts both the individual soul and the city-state. In Book VIII of The Republic, he traced the moral decline from the aristocracy of virtue to timocracy and ultimately to oligarchy, where love of money replaces love of wisdom. In such a state, he wrote, “the more men

value wealth, the less they value virtue." Thus, for Plato, order and justice must prevail over excess and greed.

In *The Laws*, Plato proposes that wealth should be regulated to prevent moral decay. He suggested limiting the wealth of citizens to prevent inequality and civic corruption, arguing that "no man should have more than four times the property of the poorest." His vision was economic equality in a modern sense, with ethical equilibrium, that sustains virtue and social cohesion.

In sum, Plato and Aristotle framed a teleological ethics of economy: wealth exists to serve the good life, not to dominate it. For both philosophers, economics without virtue degenerates into exploitation, while economics grounded in ethics sustains both the household and the city in harmony. Greek philosophers thus framed economics within a moral teleology: wealth must serve virtue and community, not vice versa.

Indian and Eastern Traditions

Ancient Indian economic philosophy, as stated in the *Arthashastra* by Kautilya (c. 300 BCE), observed *artha* (material prosperity), was always secondary to *dharma* (moral order). Economics was integrated with ethics and governance not autonomous. The ruler's duty was to promote *lokasangraha* (the collective welfare), through fair taxation, welfare provisions, and protection of the vulnerable (Kautilya, 1992). The state was to ensure sources of wealth and moral use of it.

Similarly, Buddhist economic ethics grounded economic behavior in compassion (*karuṇā*), mindfulness, and the Middle Way. The Buddha's teaching on Right Livelihood (*sammā-ājīva*) prescribed occupations that avoided harm and exploitation. Greed (*lobha*) was seen as the root of suffering, and thus economic moderation was a path to both personal and social liberation. These principles inspired later thinkers such as Schumacher (1973), whose "Buddhist Economics" echoed ancient calls for simplicity, non-violence, and sustainability in economic life.

Equivalent ethical traditions thrived in ancient China, where economics was conceived as a means to achieve harmony (*he*) and moral order within the state. Confucian economic thought emphasized moral governance and humaneness (*ren*); wealth was to be pursued for the well-being

of the people. Mencius (4th century BCE) taught that "the people are the most important element in a nation; the spirits of the land and grain come next; the ruler is the least." Confucianism defined economic justice in terms of compassionate leadership, fair taxation, and unbiased distribution. The ruler's duty (*de*) is to ensure that no one suffered from hunger or poverty.

Taoist (Daoist) thinkers, such as Laozi and Zhuangzi, offered a bit different vision. According to them excessive desire and accumulation are opposing the natural order (*Dao*). The *Daodejing* warns that "the more laws and orders are made prominent, the more thieves and robbers there will be." Taoist economic thought advocated simplicity, self-sufficiency, and minimal intervention. It was a form of ecological balance and non-attachment that echoes with today's sustainability ethics.

Another school named as Legalist economics, expressed in the writings of Han Feizi. It introduced a more pragmatic and centralized approach: the state's strength rested on agriculture, production, and taxation. They too tied economic policy to moral order: wealth and law were tools to preserve the stability of the state, not instruments of personal greed.

Thus, in these Eastern traditions, a common opinion emerges: economic activity must serve moral and social harmony. Prosperity was a condition for inculcating virtue and sustaining the moral order of society. Whether expressed through *dharma*, *ren*, or *Dao*, these traditions placed ethical limitations and communal welfare at economic life.

In sum, the Indian, Buddhist, and Chinese perspectives consistently apply a core set of moral values in Eastern economic thought; they see wealth as a means of sustaining both the morality and planetary balance of human life. These historical and philosophical approaches to economic life where financial activities (production, trade, consumption) were not separated from social, ethical, or religious duties. Instead of being driven solely by profit, economic actions were "embedded" within a framework of community values, fairness, and moral obligation.

Islamic Economic Ethics

Islamic economic thought, articulated by Ibn Khaldun, emphasized justice (*adl*), balance (*mizan*), and social welfare (*maslahah*). Prohibitions on usury (*riba*), encouragement of charity (*zakat*), and trust-based contracts reflected a vision of economic life as moral stewardship (Ibn Khaldun, 1967).

In eastern and western traditions of ancient times, it can be concluded that they consistently framed economic activity as a subset of justice, philosophy, and social order rather than an independent pursuit of profit. This ethical framework laid initial fundamentals for equity-based finance and corporate responsibility, that principles still relevant in digitalised global financial ethics.

Classical Moral Economy and the Modern Turn

The middle ages, which started and ended within 5th to 15th century, didn't change much from antiquity regarding the notion of economics. Since both eras were predominantly, agricultural, local and self-sufficient in nature, the restricted view of economy continued. While the Western Roman Empire's decline created a temporary, deep economic contraction, the core economic structures, land as the primary source of wealth and the prevalence of labour-intensive farming, remained largely continuous across both periods. The Enlightenment of 12th century redefined economics as a moral and rational inquiry into human welfare and resulted in commercial revolution in late 15th century. The 16th century marked the end of scholasticism, and started eras that saw economic thought move from church-centred moral philosophy to state-centred mercantilism, and finally to the *laissez-faire*, classical liberalism of the late 18th century.

Before Adam Smith's synthesis in 18th century, two major traditions, mercantilism and Physiocracy, shaped early modern understandings of wealth and virtue. Mercantilism (16th–18th centuries) emerged during Europe's expansionist era, where businessmen wanted to increase their and nation's wealth; it started with the accumulation of gold, silver, and then trade surpluses. Thinkers such as Thomas Mun, Jean-Baptiste Colbert, and Gerard de Malynes argued in favour of zero-sum

game via excessive use of government intervention: they argued that state power and economic regulation were essential to national prosperity. For many, emergence of the mercantilism marked the point where economics broke with the moral sciences (Boulding, 1970). Although portrayed as materialistic, mercantilism carried an implicit civic ethic: disciplined labour, thrift, and loyalty to the nation as moral duties. However, it so focused on gaining wealth at the expense of other countries and only cared about its own national interests, failing to apply the universal moral principles. The principles -human rights, liberty, or mutual benefit- became central to later, more modern economic thought later.

In contrast, the Physiocrats of 18th-century France, namely, François Quesnay, Anne Robert Jacques Turgot, and Pierre Samuel du Pont de Nemours, protested state control in the name of mercantilism: instead, they believed in natural moral order. They argued that moral and economic laws were inseparable, where human welfare depended on harmony with nature. They advocated; agriculture was the only "productive" activity because it functions with nature's generative forces. Their encouragement of free trade was not just practical but ethical. They insisted that government should "let nature rule," which allow economic flows to maintain social equilibrium and justice (Quesnay, *Tableau Économique*, 1758).

Building on and transcending these traditions, Adam Smith fused moral philosophy with economic analysis. In *The Theory of Moral Sentiments* (1759), Smith proposed that sympathy—the capacity to imagine others' feelings—forms the foundation of moral judgment and social cohesion. Alwey (1999) quoted this as "separate science of economics began that self-consciously broke from moral philosophy and theology". In *The Wealth of Nations* (1776), he developed a vision of markets as mechanisms of moral cooperation. Smith's pivotal role in the history of the discipline of economics began with the "invisible hand": it worked through the interplay of self-interest constrained by justice and trust (Smith, 1759/2002; 1776/1976). For Smith, economic freedom takes for granted moral virtue; markets were sustainable only when citizens acted with prudence, honesty, and reciprocity. In his own words "Every man, as long as he does not vio-

late the laws of justice is left perfectly free to pursue his own interest in his own way.”

After Smith, political economy gradually emerged as a profession. This professionalization progressively narrowed the scope of the economic discipline and its ethical principles. The classical economists, David Ricardo and John Stuart Mill, expanded the analytical framework of economics. David Ricardo, considered economics as a technical subject. In his *Principles of Political Economy and Taxation* (1817), he explained how to distribute a given output between rent, profit, and wages. His labour theory of value and model of comparative advantage were attempts to describe efficiency and justice in exchange among nations. Ricardo’s ethical concerns persisted, as he viewed free trade as a mechanism for mutual benefit. Ricardo’s economic theories aimed to uncover the permanent, natural rules governing the economy, reflecting the Enlightenment belief that human society, like the physical universe, operates best through reason and order when not interfered with by governments.

John Stuart Mill, writing half a century later, sought to reunite this scientific precision with moral purpose. In *Principles of Political Economy* (1848), Mill distinguished between the undisputable “laws of production” and the moral, social “laws of distribution.” For Mill, economics must serve the broader goal of human improvement. He wrote, “The worth of the state, in the long run, is the worth of the individuals composing it.” Influenced by utilitarianism and liberal ethics, Mill envisioned a cooperative capitalism: that is guided by education, gender equality, and the moral cultivation of citizens. In his synthesis, economic prosperity was meaningful only when it enhanced the moral and intellectual development of humanity.

Together, Smith, Ricardo, and Mill defined classical political economy as both a science of wealth and a moral philosophy of progress. Where mercantilism sought national accumulation and physiocracy sought harmony with nature, classical economics sought harmony among people. They trust that self-interest, guided by moral sentiment and social reform, could align private gain with the public good.

Industrialization and the Ethics of Justice

The British Industrial Revolution brought about “moral anomie,” a state where traditional, religiously dominated social norms were shattered by rapid industrialization, secularization, and the rise of utilitarian, laissez-faire ideologies. As mechanization, urbanization, and global trade accelerated, the once-human scale of production gave way to impersonal systems of profit, competition, and mass employment. The moral economy of previous era, rooted in reciprocity, community, and fairness, eroded under the pressure of capitalist industrial development.

One of the opponents of classical economic thinkers, Karl Marx (1818/1883), in *Capital*, offered the most penetrating moral critique of the transformation due to industrialization. He exposed capitalism’s ethical inconsistencies: alienation of workers and the commodified human life. Marx argued that the wealth of the bourgeoisie was built entirely on the exploitation of the proletariat, who were paid far less than the value of what they produced. This was translated into social inequality and moral degradation and led to negative impacts, including pollution, overcrowded slums, and miserable poverty for the working class. The market, once conceived as a space of cooperation (in Smith’s moral vision), had become a domain of domination and distancing. For Marx, the central ethical problem was not merely economic injustice but the loss of human essence—the devaluation of being in favour of having.

Amid these upheavals, Victorian moral philosophers and reformers such as John Ruskin and T. H. Green sought to reclaim an ethical vision of industry and society. In *Unto This Last* (1860), Ruskin condemned the moral emptiness of laissez-faire capitalism, asserting that “there is no wealth but life.” For him, economic value could not be divorced from social virtue; true prosperity was measured by human well-being, not accumulation. Similarly, Green’s idealist philosophy reinterpreted freedom not as the absence of restraint but as the capacity to realize moral purpose within community. His lectures on *Liberal Legislation and Freedom of Contract* (1881) argued that the state had a moral duty to promote welfare and education—to secure conditions for ethical self-realization in an industrial world.

Amidst some reformist ideas against capitalistic, free market policies, industrial society saw a profound moral decline and reorientation of values. The rise of consumer capitalism in the late 19th century transformed moral ambitions into market desires. With the expansion of advertising, department stores, and credit systems, possessions became symbols for identity and virtue. Consumption replaced production as the central axis of social life. Moral worth became intertwined with material display and personal satisfaction. The ethics of thrift and duty were replaced by a culture of achievement, where success was measured not by contribution but by consumption. This moral shift was unnoticed in E. P. Thompson's concept of the moral economy (1971), which highlighted how working-class protests in industrial England reflected economic grievances and ethical expectations. He highlighted demands for fairness, dignity, and communal justice against market cruelty. His work revealed that even within a capitalist system, which is often viewed as a cold, mechanical, and purely profit-driven structure, there exists an underlying set of human values and ethical judgments.

The 20th century exposed that the industrial age had produced a contradictory legacy, resulted in unprecedented material wealth alongside deep moral impoverishment. Economic efficiency advanced, but the values of solidarity, virtue, and mutual responsibility weakened. The moral economy, once embedded in social life, now survived mainly in critique—in the voices of Marx, Ruskin, Green, and later reformers who sought to restore ethics to the heart of economic order.

Modern Ethical Economics: From Welfare to Capability

Welfare and Social Justice

The 20th century witnessed an ethical revival through welfare economics. Keynes argued that markets require moral and institutional balance (Keynes, 1936), while Rawls's *A Theory of Justice* (1971) placed fairness at the heart of economic organization. The welfare state emerged as an ethical compromise between efficiency and equality. One of the scholars of this thinking, Sen (1999) bridged classical moral philosophy and modern development economics: he re-

defined well-being as the freedom to achieve valued functioning through capability approach. His approach restored ethics to the core of economics, emphasizing that true progress is measured not by income but by human capabilities and dignity.

Ethical Dilemmas in the Digital Age

The shift from industrial to platform capitalism depicts a shift from mass producing physical goods in factories to mediating economic activity via digital platforms. The digital economy represents a new stage in capitalism, where data becomes the primary source of value. Platform capitalism concentrates economic power in the hands of digital intermediaries, eroding traditional notions of equity (Srnicek, 2017). Industrial capitalism is based on tangible, owned assets (machinery, factories), while platform capitalism relies on digital infrastructures, algorithms, and data extraction. The transition from industrial capitalism to platform capitalism represents a shift from a goods-producing economy centred on factories to a digital-intermediary economy centred on data, algorithms, and networks. Platform capitalism uses digital platforms (e.g., Amazon, Uber, Google) to act as intermediaries that connect users, producers, and service providers, often generating profit by capturing and monetizing data rather than producing goods. This shift introduces profound ethical challenges, shifting from labour exploitation within physical factories to algorithmic control, data surveillance, and risky gig work. The commodification of personal data echoes earlier ethical critiques of labour exploitation.

Algorithmic Morality and Responsibility

As algorithms increasingly make decisions in finance, education, and healthcare, questions of moral agency and accountability arise. As AI systems autonomously make decisions, they often act as "distributed agents," causing responsibility gaps where no single person is accountable. Ethical AI requires ensuring transparency, mitigating bias, and maintaining human oversight, as algorithms cannot bear moral guilt. Scholars emphasize that accountability frameworks (using rules, auditing, and transparency to assign blame or praise) are distinct from moral responsibility,

which is about ethical obligation. Classical ethical economics, that concerned with virtue, fairness, and duty, provides a lens through which to evaluate algorithmic governance. Algorithms, like markets, must be guided by ethical principles rather than unregulated efficiency (Zuboff, 2019).

Digital Inequality and the Moral Imperative of Inclusion

The digital divide reproduces old hierarchies in new forms. Access to technology, data literacy, and algorithmic transparency determine who benefits from the digital economy. Algorithms are not neutral; they are designed by humans and trained on data that often reflects historical preconceptions. When these systems become authoritative, they can preserve, hide, and scale discrimination. From the perspective of moral economy, ensuring digital equity is both an ethical and developmental necessity (Sen, 1999).

Bridging Historical Ideas and Digital Realities

Reviving ancient principles for modern ethics involves shifting focus from rigid, duty-based rules (deontology) or consequence-based outcomes (consequentialism) or the neoclassical utilitarianism toward the cultivation of character, virtue, and all-inclusive well-being. Ancient and classical traditions share enduring ethical aspects—justice, reciprocity, and self-control—that can also be useful for digital governance today. Just as Hammurabi sought to protect debtors, and Aristotle warned against greed, modern digital systems must safeguard the vulnerable against algorithmic exploitation and data capitalism. This revival stems from a growing dissatisfaction with solely rule-based or consequence-based approaches to ethics. Instead, it seeks measures to revive a tradition focused on cultivating a good life in the digital world not merely on utilitarianism. Since the link between ethical frameworks and economic processes is inherently reciprocal and continuously evolving, economic interface with ethics can be re-established. It is crucial to recognise that the marginalist revolution and the ensuing mathematization of economics were the inevitable result of the utilitarian viewpoint, functioning as a positive ethics restricted solely

to the measurable aspects of economic life. However, the ethical approaches throughout history of economic thought find grounds for reconciliation with the utilitarian tradition, it is also possible to observe them as a strong alternative to the consequentialist tradition. For example, sub-disciplines such as development economics, welfare economics, social choice theory, behavioural economics, experimental economics, and neuroeconomics have filled the moral problems that the market economy has failed to provide. However, Sandel (2013) argues against extending market mechanisms and forces to aspects and spheres of life where they do not belong. She advises, and concludes that economics should “reconnect with its origins in moral and political philosophy.”

The Digital Moral Economy Framework

The term ‘moral economy’ was notably first thought up by historian Thompson in 1970s to describe the shared social expectations concerning the pricing and distribution of food in 18th-century England. It links ‘moral’ with ‘economy’, emphasizing the ethical dimensions of resource distribution. The moral economy framework suggests that economic actions and relationships are not solely governed by market forces of supply and demand, but are also deeply regulated by shared moral understandings, social norms, and community expectations regarding justice and fairness. This framework analyses how populations react when perceived social rights or legitimate expectations concerning subsistence and welfare are violated by economic shifts or policy changes.

Digital moral economy framework means an analytical approach to understand how shared values, ethics and social norms operate within digital environment. It focuses on reciprocity, justice, virtue and wellness. It depends on consequentialism that evaluates the morality of actions based on their outcomes or consequences. In the digital context, consequentialism may consider the potential benefits and harms of emerging technologies and data practices. However, challenges may arise in predicting and quantifying the long-term impacts of digital innovations on individuals, society, and the environment

Another ethical framework that emphasizes the inherent rightness or wrongness of actions based

on moral rules and duties is known as deontology. In the digital realm, deontological principles may include respect for privacy, honesty, and the protection of human rights. However, Conflicts can emerge when moral duties (individual privacy) clash with other values (public safety or national security).

In addition, virtue ethics is another ethical framework that focuses on the moral character and virtues of individuals and organizations. In the digital age, virtues such as integrity, trustworthiness, and empathy are essential for building and maintaining trust in technology and data practices. Organizations must cultivate a culture of ethical behaviour and decision-making, rather than relying solely on compliance with rules and regulations.

The last framework is Principlism, which is an ethical framework that draws on a set of common principles to guide decision-making in complex situations. The four key principles of principlism (autonomy, generosity, non-malicious, and justice) can be applied to digital ethics dilemmas. Balancing these principles requires careful consideration of context, stakeholder interests, and potential trade-offs.

Building on historical insights from the economic thinking, a digital moral economy should rest on four ethical pillars that is shown in the Figure 1. It suggests that the moral foundations of traditional economics—such as trust, justice, and responsibility—are not obsolete, but must be adapted to govern new digital technologies. Applied ethics is an interdisciplinary field that addresses moral questions across diverse domains. In recent years, a new discipline—Digital Ethics (or Ethics of Digitalization)—has emerged. Its purpose is to bridge technology studies, information and communication ethics, and the broader ethical challenges of digital transformation. Rather than regulating digital technology after it causes harm, ethical values—fairness, transparency, and accountability—must be embedded into the algorithms, AI, and data systems from the start. In sum, Digital Moral framework is an attempt to merge technological progress with humanistic values, ensuring that the digital revolution serves humanity rather than undermining it.

Education as Ethical Renewal

Economic education, especially the history of economic thought, plays a vital role in cultivating ethical awareness. Teaching the moral evolution of economics can empower future economists and technologists to design systems that balance innovation with justice by bridging wisdom and progress. In conclusion, integrating ethics into economic education is not merely an academic exercise, but a necessary paradigm shifts to address the complex crises of the 21st century. By moving beyond a narrow, positivistic focus on profit and self-interest toward a pluralistic approach that embeds normative values—such as sustainability, justice, and human well-being—education can empower future leaders to recognize that economics is, fundamentally, a moral science. Revitalizing this ethical dimension ensures that economic analysis serves human needs and fosters responsible stewardship rather than generating harmful social and environmental externalities.

Conclusion and Contributions

From ancient temples to digital platforms, economic life has always been a moral initiative. The evolution of ethical economics reflects humanity's ongoing effort to reconcile self-interest with social good. In the digital age, this challenge is renewed under new forms—data monopolies, algorithmic bias, and global inequality. Reconnecting with the ethical traditions of the past can provide direction to a more compassionate digital future."The arc of the moral universe is long, but it bends towards justice" is a famous quotation of Dr. Martin Luther King Jr. The moral arc of economic thought—from Hammurabi to Sen—reminds us that the ultimate purpose of economics is not accumulation but cohesion: the flourishing of all within a just and compassionate society.

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