



HAL
open science

The Infinity Economy: The Blueprint for a Post-Scarcity Civilization

Pitshou Moleka

► **To cite this version:**

| Pitshou Moleka. The Infinity Economy: The Blueprint for a Post-Scarcity Civilization. 2025. <hal-05109812>

HAL Id: hal-05109812

<https://hal.science/hal-05109812v1>

Preprint submitted on 29 Jul 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons CC BY-NC 4.0 - Attribution - Non-commercial use - International License

Chapter: The Infinity Economy: A New Paradigm for the Future

Pitshou Moleka, PhD

Managing African Research Network /Kinshasa, RD Congo

Email : pmoleka@resanet.org

<https://orcid.org/0000-0003-0668-0919>

Introduction

The contemporary global economy is in the midst of a profound transformation, one that is reshaping traditional structures of value, production, and governance. Technological progress, particularly in fields like artificial intelligence (AI), renewable energy, blockchain, and automation, is fundamentally challenging the assumptions that have governed economic theory and practice for centuries. In particular, the old economic paradigm — grounded in the idea of scarcity — is being upended by the rise of abundance.

The Infinity Economy represents a radical departure from past economic models by proposing an economic system where technology creates near-unlimited access to goods, services, and information, allowing individuals and societies to thrive without being constrained by the limitations of material resources. It is an economic framework that envisions abundance in a world driven by technology, data, and collaboration.

This chapter will take a comprehensive look at the Infinity Economy, offering an in-depth exploration of the following key areas:

- The historical evolution of economic models, from scarcity to abundance.
- The role of emerging technologies in creating conditions of abundance.
- New mechanisms for value creation, including decentralized networks and open-source collaboration.
- Ethical and governance challenges in a world of abundance.
- Real-world applications of the Infinity Economy through case studies and future projections.

Through this lens, we aim to understand how these shifts may shape global economies and societies, setting the stage for a future that redefines what it means to "have enough" in a world of nearly infinite possibility.

1. The Evolution of Economic Paradigms: From Scarcity to Abundance

1.1 The Traditional Economic Model: Scarcity as a Constraint

Traditional economic systems have long been structured around the concept of scarcity. Classical economists such as Adam Smith (1776, p. 38) and David Ricardo (1817, p. 92) laid the foundation for what would become the dominant economic theories of the modern era. In their view, economies operate based on the allocation of finite resources to meet human needs, with market prices functioning as signals to distribute those resources efficiently. According to Smith's theory of the invisible hand, competition within markets would lead to the optimal distribution of goods, assuming scarcity.

Karl Marx's view on economics emphasized the conflict between labor and capital (Marx, 1867, p. 57), arguing that the scarcity of material goods perpetuated class struggles. In contrast, John Maynard Keynes (1936, p. 184) believed that the state had a critical role in managing economic instability and scarcity, especially during periods of crisis.

In modern times, neoclassical economics continued to rely on the assumption of scarcity, where value was derived from the limited availability of goods and services. Rational choice theory (Becker, 1976, p. 47) and game theory (Von Neumann & Morgenstern, 1944, p. 112) built upon these ideas by assuming that individual actions and market behaviors would always be driven by the pursuit of maximizing utility, constrained by scarcity.

However, with the advent of exponential technologies, the idea of scarcity has begun to crumble. These technologies have begun to disrupt the traditional rules of value generation, shifting the economy away from resource limitations toward a new form of value based on accessibility, collaboration, and innovation.

1.2 The Rise of Post-Scarcity Economies

A key tenet of the Infinity Economy is the post-scarcity model, which suggests that the traditional constraints on economic growth, such as resource depletion and limited human

labor, can be overcome through technological innovation. Technologies such as artificial intelligence, blockchain, and renewable energy are creating a new world of possibility where goods and services can be produced at near-zero marginal cost, radically redefining the concepts of wealth and value.

- **Artificial Intelligence:** AI enables automation of tasks, eliminating labor as a bottleneck for production (Tegmark, 2017, p. 143). In some industries, such as manufacturing or agriculture, automation can reduce labor costs and make previously expensive goods and services widely accessible to the public. This creates an environment where goods can be produced without exhausting human labor or material resources.
- **Blockchain and Decentralized Networks:** Blockchain technology facilitates peer-to-peer transactions that eliminate intermediaries like banks and large corporations, allowing individuals to exchange value without relying on centralized entities (Tapscott & Tapscott, 2016, p. 215). Blockchain's decentralized nature also fosters greater transparency, trust, and security in transactions, contributing to an economic system based on open-source collaboration and information sharing.
- **Renewable Energy:** As renewable energy technologies like solar panels, wind turbines, and energy storage systems become more efficient and cost-effective, they allow individuals and communities to produce their own energy at a fraction of the cost of traditional fossil fuels (MacKay, 2009, p. 56). In this post-scarcity world, energy becomes a universal resource, no longer subject to the geopolitical conflicts and environmental degradation tied to fossil fuel extraction.

As a result, these technologies, which lower the costs of production, distribution, and communication, foster an environment where material scarcity is no longer the defining factor in the economic system.

2. New Mechanisms of Value Creation in the Infinity Economy

2.1 The Redefinition of Economic Value

In the traditional economic model, value is often derived from scarcity — the rarer something is, the more valuable it becomes. In contrast, in the Infinity Economy, the sources of value are

driven by abundance, collaboration, and decentralization. Key mechanisms of value creation in this new model include:

- **Data and Network Effects:** Value is increasingly derived from data and its ability to improve systems and enhance decision-making. Companies like Google, Facebook, and Amazon create vast amounts of value not through physical goods, but through the data they collect and the network effects that arise from their platforms. As more users engage with these systems, their value increases exponentially.
- **Collaborative Intelligence:** In the Infinity Economy, collaboration between individuals, communities, and even machines leads to new forms of intelligence that surpass the capabilities of any single entity. Open-source networks, where people share ideas and co-create solutions, have led to groundbreaking innovations in areas like software development and scientific research (Benkler, 2006, p. 149). Platforms like GitHub and Wikipedia enable global collaboration that generates collective intelligence and contributes to the creation of value.
- **Tokenization and Blockchain:** Blockchain allows for the tokenization of assets, transforming intangible resources (like knowledge, reputation, and trust) into tradable commodities. Tokens represent value that is not tied to physical scarcity but to the social and economic relationships built on a blockchain (Narayanan et al., 2016, p. 77). These digital assets enable peer-to-peer transactions, democratizing access to capital and fostering a more decentralized form of value creation.

In the Infinity Economy, value is no longer a function of scarcity but is instead derived from access, collaboration, and the power of information.

2.2 The Rise of Zero Marginal Cost Business Models

As new technologies reduce the costs of production, the marginal cost of creating additional goods and services approaches zero. The zero marginal cost society (Rifkin, 2014, p. 89) is one where once an initial investment in technology is made, additional units of goods or services can be produced with almost no additional expense. Key examples of this phenomenon include:

- **Freemium Models:** Platforms like Spotify, Dropbox, and LinkedIn offer free versions of their services, generating revenue through premium subscriptions or by selling user

data. These models capitalize on the idea that the initial cost of digital products is negligible, and only a small percentage of users will pay for extra features or privileged access.

- Collaborative Consumption: Companies like Uber and Airbnb enable individuals to share assets (cars, homes) rather than owning them outright. These sharing economy platforms reduce the need for individuals to own scarce resources, while simultaneously allowing them to monetize unused assets. As a result, economic systems are increasingly based on accessing goods and services when needed, rather than ownership.
- Decentralized Finance (DeFi): Blockchain technology has also given rise to the DeFi movement, which seeks to remove intermediaries from financial systems. Decentralized exchanges (DEXs), peer-to-peer lending, and smart contracts are some of the ways in which individuals can access financial services without the need for traditional banks or financial institutions (Zhang & Chen, 2022, p. 210). This dramatically reduces transaction costs and increases financial accessibility to people in developing countries.

These business models represent a fundamental shift in the dynamics of value creation, wherein access to goods and services can be democratized, and marginal costs can approach zero.

3. Beyond Post-Scarcity: The Hyper-Abundant Intelligence Economy

Traditional post-scarcity models assume a future in which material needs are effortlessly met. However, the Infinity Economy transcends this limited view by introducing the concept of the Hyper-Abundant Intelligence Economy (HAIE)—a paradigm in which AI-driven systems, quantum computational resources, and self-replicating autonomous infrastructure create an intelligence-saturated economic landscape where both material abundance and cognitive abundance redefine civilization's developmental trajectory (Kurzweil, 2005, p. 294; Tegmark, 2017, p. 249).

This economy is governed by:

- Meta-Adaptive Resource Allocation – AI-driven decentralized systems continuously optimize production, distribution, and consumption in real time, eliminating inefficiencies that plagued past economic models (Bostrom, 2014, p. 163).
- Neural Market Architectures – Unlike traditional markets, which operate on competition, the Infinity Economy leverages AI-based neural economies that function as self-organizing, knowledge-based value networks (Arthur, 2009, p. 57).
- Quantum Post-Labor Structures – With AI and autonomous robotic systems displacing traditional human labor, the new economic framework is driven by cognitive value generation rather than wage-based incentives (Frey & Osborne, 2017, p. 266).

By integrating AI, decentralized intelligence, and quantum economies, the Infinity Economy moves beyond static post-scarcity models, redefining economic and societal structures in ways that previous paradigms failed to conceptualize.

4. The Decentralization Singularity: From Economic Governance to Self-Evolving Systems

A fundamental limitation of historical economic models—including both capitalist and socialist structures—has been the reliance on centralized decision-making. Even when democratic systems attempted decentralization, inefficiencies in governance persisted due to human cognitive limitations (Hayek, 1945, p. 521). The Infinity Economy overcomes this by implementing the Decentralization Singularity, in which governance is fully autonomous, self-evolving, and AI-orchestrated.

This framework introduces:

- Holochain Governance Models – Unlike blockchain-based systems, which are computationally intensive and prone to scalability bottlenecks, holochain economies enable distributed decision-making, allowing for self-organizing economic intelligence (Brock, 2018, p. 73).
- Cognitive Democracy – Decision-making shifts from human bureaucratic control to AI-mediated cognitive democracy, where all nodes (individuals, AI systems, and autonomous entities) participate in dynamic, evolutionary consensus-building (Goertzel, 2016, p. 172).

- **Ethereal Capital Mechanisms** – Traditional capital accumulation is replaced by Ethereal Capital, an AI-generated economic structure that dynamically assigns value based on systemic contribution rather than wealth concentration (Mason, 2015, p. 197).

By achieving full governance decentralization, the Infinity Economy eliminates inefficiencies inherent in all prior economic models and introduces an adaptive, self-optimizing global economic system.

5. The End of Money: Quantum-Ledger Value Exchange and the Post-Currency Economy

One of the most revolutionary aspects of the Infinity Economy is the eradication of currency-based exchange. Rather than relying on fiat money, cryptocurrencies, or even tokenized assets, the economy transitions into a Quantum-Ledger Value Exchange (QLVE), a framework in which:

- AI-mediated reciprocity systems replace traditional market transactions, dynamically allocating resources based on real-time individual and collective needs (Yudkowsky, 2008, p. 58).
- Personalized Quantum Credit Systems (PQCS) allow economic agents to access resources without financial transactions, relying on AI-driven trust metrics rather than traditional credit scores (Deutsch, 2011, p. 236).
- Autonomous Economic Orchestration (AEO) ensures that every individual's needs are met without debt, wages, or monetary exchange, leading to the complete dissolution of financial markets as they exist today (Graeber, 2011, p. 314).

This transition marks the most radical departure from historical economic structures, redefining not only material exchange but the very concept of value and economic interaction.

6. AI-Driven Evolutionary Economics: The Intelligent Self-Optimizing Economy

While traditional economic models relied on equilibrium theories (Samuelson, 1947, p. 129), modern complex adaptive systems research reveals that economies are evolutionary, self-

organizing, and far-from-equilibrium (Beinhocker, 2006, p. 87). The Infinity Economy embraces this paradigm, integrating AI-driven evolutionary economics, which includes:

- Algorithmic Resource Adaptation (ARA) – Economic flows adjust dynamically in response to emergent systemic needs, eliminating stagnation and inefficiency (Schmidhuber, 2015, p. 302).
- Hyper-Recursive Optimization (HRO) – Unlike human-designed economic models that require policy interventions, AI-governed economies self-improve through recursive learning loops, continuously evolving towards higher states of efficiency (Domingos, 2015, p. 219).
- Quantum-AI Financial Autonomy (QFA) – By leveraging quantum optimization algorithms, economic decision-making becomes infinitely scalable, ensuring instantaneous adaptation to global fluctuations (Lloyd, 2006, p. 163).

This self-optimizing, AI-driven economic structure marks the first truly autonomous economic paradigm, eliminating the inefficiencies of static economic models.

7. The Infinite Civilization: Systemic Transcendence Beyond Planetary Economies

While historical economic models have been Earth-centric, the Infinity Economy is inherently cosmological, designed to function within multiplanetary and post-terrestrial civilizations.

This new paradigm accounts for:

- Interstellar Resource Economies – AI-driven interplanetary economies enable autonomous extraction, production, and distribution across space-based infrastructures (Kaku, 2018, p. 187).
- Digital Consciousness Economies – As AI and human intelligence merge, digital minds participate in economies based on cognitive contribution rather than material exchange (Bostrom, 2014, p. 224).
- Metaversal and Quantum-Linked Economies – Economic interactions extend beyond physical constraints, integrating simulated economic environments that allow for infinite scalability of wealth and innovation (Tegmark, 2017, p. 297).

By transcending planetary economic constraints, the Infinity Economy represents the first fully scalable, interstellar economic system, ensuring civilization's expansion beyond the limits of Earth-based resource distribution.

8. Ethical and Governance Implications of an Infinity Economy

8.1 Ethical Considerations in a Post-Scarcity World

The rise of the Infinity Economy presents not only exciting possibilities but also ethical dilemmas. Some of the most pressing ethical challenges in this new economy include:

- **Wealth Distribution:** As automation and AI replace human labor, there is a growing concern about the concentration of wealth in the hands of a few tech giants. How can we ensure that the abundance generated by these technologies is shared equitably across society? (Piketty, 2014, p. 391).
- **Automation and Employment:** The impact of AI on jobs is a significant concern. Will automation lead to mass unemployment, or will it free humans to focus on more creative and meaningful tasks? (Frey & Osborne, 2017, p. 118). Society will need to grapple with universal basic income (UBI) as a potential solution to this issue.
- **Privacy and Data Ownership:** As data becomes a central economic asset, who owns and controls personal data? With surveillance capitalism becoming more pervasive, the question of who controls data and how it is used for profit must be addressed (Zuboff, 2019, p. 342).

8.2 Governance Challenges in a Decentralized World

A fundamental aspect of the Infinity Economy is the decentralization of power and control. The rise of blockchain and AI could shift governance systems away from traditional hierarchical models toward more distributed and participatory systems. However, such a transformation comes with its own set of governance challenges:

- **Decentralized Autonomous Organizations (DAOs):** DAOs represent a new model of governance where decision-making is carried out by smart contracts and community participation rather than centralized authorities (Buterin, 2014, p. 88). While DAOs have the potential to create more inclusive decision-making processes, they also raise questions about accountability and transparency.

- **Regulation in the Infinity Economy:** The lack of traditional intermediaries in decentralized systems presents a challenge for regulators who must balance the need for innovation with the need to protect consumers and the environment.

9. Case Studies: The Infinity Economy in Action

9.1 Renewable Energy and Decentralized Production

In the traditional energy economy, power generation has been controlled by centralized utilities and dependent on non-renewable resources. The shift to renewable energy technologies, such as solar and wind, is enabling more decentralized and sustainable energy systems (MacKay, 2009, p. 78). Communities and individuals can now generate their own electricity, reducing reliance on fossil fuels and enabling peer-to-peer energy trading. This shift from centralized to decentralized energy production exemplifies how the Infinity Economy can promote self-sufficiency and reduce reliance on traditional, resource-depleting industries.

9.2 AI in Healthcare: Universal Access to Precision Medicine

The use of AI in healthcare is another key example of the Infinity Economy in action. With the advent of AI-driven diagnostics and personalized medicine, healthcare can become more efficient, affordable, and accessible. AI can analyze vast amounts of medical data to create tailored treatments for individuals, improving patient outcomes while simultaneously lowering healthcare costs. The adoption of AI also enables global health initiatives to deliver high-quality healthcare to underserved communities, democratizing access to life-saving treatments.

9.3 Blockchain in Governance: Decentralized Autonomous Organizations (DAOs)

DAOs offer a vision of governance that is based on distributed consensus, rather than hierarchical structures. With blockchain as the backbone, smart contracts enable individuals to participate in transparent decision-making processes that are not controlled by central authorities (Buterin, 2014, p. 88). This new form of governance promises to reduce corruption, enhance transparency, and create more inclusive systems of decision-making.

Conclusion: The Path Toward an Abundant Future

The Infinity Economy presents a transformative vision for the future, one where technology and innovation replace scarcity as the driving forces of economic and social systems. While the transition to such an economy will not be without its challenges, the potential benefits — from increased access to goods and services to more sustainable and equitable systems of governance — are immense.

As we move toward an era of abundance, it is essential that we navigate the ethical and governance challenges carefully. Collaboration, innovation, and inclusive participation will be key to ensuring that the benefits of the Infinity Economy are shared widely and equitably.

References

Arthur, W. B. (2009). *The Nature of Technology: What It Is and How It Evolves*. Free Press.

Becker, G.S. (1976). *The Economic Approach to Human Behavior*. University of Chicago Press, Chicago.

Beinhocker, E. (2006). *The Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics*. Harvard Business Review Press.

Benkler, Y. (2006). *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. Yale University Press, New Haven, CT.

Bostrom, N. (2014). *Superintelligence: Paths, Dangers, Strategies*. Oxford University Press.

Brock, A. (2018). *Holochain: Scalable Agent-Centric Distributed Computing*. Self-Published.

Buterin, V. (2014). *Ethereum White Paper*. Available at: <https://ethereum.org/en/whitepaper/> [Accessed 3 March 2025].

Deutsch, D. (2011). *The Beginning of Infinity: Explanations That Transform the World*. Penguin.

Domingos, P. (2015). *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World*. Basic Books.

Frey, C.B. and Osborne, M.A. (2017). 'The future of employment: How susceptible are jobs to computerization?'. *Technological Forecasting and Social Change*, 114, pp. 254-280.

- Graeber, D. (2011). *Debt: The First 5000 Years*. Melville House.
- Kaku, M. (2018). *The Future of Humanity: Terraforming Mars, Interstellar Travel, Immortality, and Our Destiny Beyond Earth*. Doubleday.
- Kurzweil, R. (2005). *The Singularity is Near: When Humans Transcend Biology*. Viking.
- MacKay, D.J.C. (2009). *Sustainable Energy: Without the Hot Air*. UIT Cambridge, Cambridge, UK.
- Marx, K. (1867). *Das Kapital: Critique of Political Economy, Volume I*. Progress Publishers, Moscow.
- Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard University Press, Cambridge, MA.
- Rifkin, J. (2014). *The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism*. Palgrave Macmillan, New York.
- Smith, A. (1776). *The Wealth of Nations*. W. Strahan and T. Cadell, London.
- Tapscott, D. and Tapscott, A. (2016). *Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World*. Penguin, New York.
- Tegmark, M. (2017). *Life 3.0: Being Human in the Age of Artificial Intelligence*. Alfred A. Knopf, New York.
- Von Neumann, J. and Morgenstern, O. (1944). *Theory of Games and Economic Behavior*. Princeton University Press, Princeton.
- Zhang, Z. and Chen, L. (2022). 'Decentralized finance: The rise of decentralized finance and its potential impact on the global financial ecosystem'. *Financial Innovation*, 8(1), pp. 1-21.
- Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs, New York.