

# Potentialism

The Human Potential in a Post-Work Economy by Steffen Reckert

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## Abstract

This paper examines the swift displacement of human labor by autonomous AI systems—potentially replacing up to 65% of jobs—and the consequent collapse of traditional capitalist and socialist frameworks. Drawing on historical shifts in technology and insights from Frey and Osborne (2017) and Brynjolfsson and McAfee (2014), we propose a radical paradigm where AI-generated surplus value is captured via blockchain and redistributed as unconditional basic income (UBI). By redefining value in terms of human creativity and communal well-being, Potentialism charts a course toward an equitable, post-work society.

## A Glimpse of Tomorrow

The initiation of a pioneering research project at one of the globe's largest employers marked a significant turning point in the investigation of future workplace transformations. On a sprawling corporate campus characterized by cutting-edge machinery and extensive rows of cubicles, mounting evidence emerged indicating a future that had previously been considered the realm of science fiction.

In 2020, our team set out to answer a seemingly simple question: what would our company's workplace look like a decade from now? At that time, the world was emerging from uncertainty, and discussions of large language models or artificial intelligence were confined to a handful of visionary researchers. At that time, the AI community was in a phase of gradual reactivation following a prolonged period of limited progress. The study commenced with interviews conducted with a diverse group of experts—including scientists and professionals from production, human resources, IT, and other relevant sectors. Following extensive interviews, a strong consensus emerged among experts that by 2030, robots—or, more broadly, automation—could potentially replace nearly every job. It is important to recall that at that moment, ChatGPT was yet unknown to the public.

Our rigorous, far-reaching study suggested that within just a few decades, as much as 80–90% or even more of human labor could be rendered obsolete by autonomous AI systems. The uniformity of the predictions across various departments and perspectives, coupled with the profound implications of such a future, was particularly striking.

This paper examines a future scenario in which both capitalism and socialism, as currently structured, may collapse within the next five years. The paper explores the implications of this

seismic shift for individuals, nations, and societies, and outlines a potential solution for managing these unprecedented changes.

For the purposes of careful illustration and to remain on the conservative side of speculation, we will not use the shocking 90% of labor for the hypothesis, but the more conservative 65%. Even a displacement rate as low as 30% would result in a dramatic shift, with minimal impact on the overall outcome and proposed solution. Frey & Osborne<sup>1</sup> already estimated in their 2017 paper from Oxford University that up to 47% of jobs in the U.S. are at high risk of automation within the next few decades. Their study employs machine learning techniques to assess which occupations are most susceptible to replacement by AI and robotics. The estimate of 65% workforce displacement is deliberately positioned between Frey and Osborne's projection of 47% and higher-end forecasts of up to 90%. This middle-ground figure is chosen to reflect not only the rapid advancements in autonomous AI technologies but also the accelerated pace of implementation observed in leading global corporations. By opting for 65%, our model remains conservative yet realistic, allowing for easier calculation and modeling while accommodating emerging trends that suggest technological progress may outstrip earlier estimates.

These are not just numbers—they are the tipping point at which the traditional engine of capitalism, built on wage labor and consumer spending, risks collapsing. When 65% of the workforce is displaced, the economy as we know it will face a radical transformation. This paper examines the possibility of a future in which the majority of humans are freed from the constraints of daily employment, yet face an entirely new economic order in which machines, though highly efficient, do not consume. In this envisaged paradigm, social structures, financial institutions, and the collective sense of purpose are expected to face challenges that are only beginning to be understood.

In previous technological revolutions, society's full adaptation often took decades—a pace that allowed cultural, economic, and regulatory systems to gradually adjust. Take the steam engine, for instance: although its early versions emerged in the 18th century, it took nearly 50 to 100 years for its transformative effects to be fully felt across industries and communities. Similarly, the telephone, introduced in the late 19th century, required around 20 years before it became a ubiquitous tool for communication, fundamentally altering social interactions. The automobile, too, revolutionized transportation and urban design, but its widespread adoption took roughly 20 to 30 years, smoothing out its disruptive impact over time. More recently, the personal computer and the internet—each a hallmark of the digital age—were integrated into everyday life in approximately 10 to 15 years, reflecting an accelerating pace of change.

Now, envision a future where the AI robot revolution unfolds even more rapidly. With current technological advancements, it is conceivable that autonomous AI robots could replace a significant portion of the workforce within just five years. This is in stark contrast to earlier technological shifts, where extended transition periods allowed society to absorb and adapt to

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<sup>1</sup> Frey, C.B. and Osborne, M.A. (2017) 'The future of employment: How susceptible are jobs to computerisation?', *Technological Forecasting and Social Change*, 114, pp. 254-280.

new realities. Brynjolfsson & McAfee<sup>2</sup> (2014) argue in *The Second Machine Age* that AI and robotics are developing at an exponential rate, unlike past technological revolutions which followed a linear trajectory. They highlight how Moore's Law, which describes the doubling of computing power approximately every two years, accelerates AI's capabilities far beyond historical precedents.

This will put a pressure onto our societies that they have never felt before.

## Methodology

This study employs a mixed-methods approach, integrating conceptual analysis, literature review, qualitative insights, and quantitative projection models to examine the transformative effects of autonomous AI systems on labor markets and the feasibility of a blockchain-based universal basic income (UBI) system. The methodology is structured as follows:

- 1. Literature Review and Theoretical Framework**  
An extensive review of classical and contemporary literature—ranging from the foundational theories of Adam Smith (1776) and Karl Marx (1848/1867) to modern analyses by Frey and Osborne (2017) and Brynjolfsson and McAfee (2014)—provides the theoretical underpinning for our study. This review establishes the dual nature of economic and social systems and informs the conceptualization of Potentialism.
- 2. Qualitative Data Collection**  
Semi-structured interviews were conducted with experts across diverse fields such as economics, technology, human resources, and public policy. These interviews captured a range of perspectives on future workplace transformations and the potential for widespread automation, thereby refining our assumptions regarding workforce displacement.
- 3. Quantitative Projection Models**  
Building on empirical findings from prior studies, quantitative models were developed to estimate the extent of workforce displacement. Although Frey and Osborne (2017) forecasted a 47% risk of automation in the U.S., our model adopts a more conservative estimate of 65% displacement. Historical economic data and trend analyses from previous technological revolutions were used to simulate the resulting impacts on consumer spending and GDP.
- 4. Blockchain-Based UBI Simulation**  
A novel computational model was devised to simulate a token-based taxation system, which captures the surplus value generated by autonomous AI systems. This model utilizes a "Complexity Score" algorithm—accounting for task duration, difficulty, material costs, and risk factors—to determine token issuance. The simulation evaluates the scalability, stability, and integration challenges of a blockchain-based UBI mechanism, drawing on insights from Swan (2015).

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<sup>2</sup> Brynjolfsson, E. and McAfee, A. (2014) *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York: W.W. Norton & Company

## 5. Comparative Analysis and Scenario Planning

The proposed Potentialism model is compared against traditional capitalist and socialist frameworks through scenario planning. This analysis explores multiple future states, examining how varying degrees of automation and token-based income redistribution might reshape economic structures and influence global monetary systems.

This multifaceted methodology allows for a rigorous exploration of the interplay between technological innovation, economic theory, and policy design, providing a robust foundation for evaluating the potential shift towards a post-work society under the Potentialism paradigm.

## The Economic Impact

One may conceptualize an economy in which nearly two-thirds of the workforce in both America and Germany<sup>3</sup> is displaced from the traditional labor market. In the United States, where approximately 160 million people are currently employed, a 65% reduction would mean roughly 104 million individuals no longer earn a wage. In Germany, with an employment base of about 40 million, some 26 million workers would be displaced. The immediate effect on consumer spending would represent a substantial contraction of the economic engine that drives GDP.

Consider that personal consumption accounts for roughly 65–70% of GDP in these economies. For the United States, if 65% of workers drop out and are not compensated through conventional employment, the collective spending potential would shrink dramatically. If we assume that the current wage-driven consumption in the U.S. represents around 10–15 trillion dollars annually, then the sudden loss of income for 65% of the population could reduce this figure by several trillion dollars—potentially lowering GDP growth by multiple percentage points. Germany, with a GDP projected at around €4 trillion by 2030, would face a similar downturn if consumer spending fell proportionally.

The impact is twofold. First, there is the loss of wage income—a primary source of purchasing power. Second, and perhaps more profoundly, the robots that replace these workers, while extraordinarily productive, are not consumers. Aside from the occasional need for energy (and, as a light-hearted aside, perhaps a smidgen of motor oil), **these machines do not participate in the marketplace**. This “consumption gap” threatens to undermine the very foundation of our capitalist system, which has long relied on a cycle of income and spending to drive economic growth.

## The Financial Lifeline for a Post-Work Society

In the face of such dramatic change, the introduction of an unconditional basic income (UBI) becomes not just a policy option, but an existential necessity. UBI is a system in which every citizen—regardless of prior employment—receives a fixed income from the state, beginning at

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<sup>3</sup> I take America and Germany to illustrate my example, but we will witness similar developments in all developed countries

the age of 18 and continuing until death. Consider a scenario in which every American and German, regardless of prior employment status, is provided with a guaranteed income.

To put this into perspective, let's consider the United States. With a population of roughly 330 million, if we assume that UBI is paid to every citizen aged 18 and older (approximately 250 million people), and that each individual receives an annual basic income of \$80,000, the total annual cost would be  $250 \text{ million} \times \$80,000 = \$20 \text{ trillion per year}$ .

In Germany, with a smaller population of about 83 million and roughly 60 million adults, if each were to receive €72,000 annually (assuming an approximate exchange rate of 1 USD = 0.90 EUR), the total cost would be  $60 \text{ million} \times €72,000 = €4.32 \text{ trillion per year}$ .

These figures are staggering. They represent a complete reordering of fiscal priorities, and they force us to confront a vital question: How do we finance such a vast redistribution of wealth when traditional sources—tax revenues from a shrinking workforce—are themselves dwindling? Conventional taxation and borrowing will no longer suffice. This is where my proposed solution comes into play.

## A Radical New Approach replacing taxation

Bitcoin is often heralded as “digital gold” because its value is not imposed by any government but is created through a process known as mining. In the Bitcoin network, specialized computers solve intricate cryptographic puzzles—a process called proof-of-work—to verify transactions and add new blocks to the blockchain. The enormous energy and computational power required to solve these puzzles ensure that Bitcoin remains scarce (capped at 21 million coins) and valuable. In essence, Bitcoin's value is generated by machines solving abstract problems, and its worth emerges from the interplay of supply, demand, and the labor of computers.

In a future society where autonomous AI robots replace 65% of human labor, the implications for economic structure would be profound. In many ways, these robots are not fundamentally different from the machines that “mine” Bitcoin—they, too, solve problems. But instead of cracking cryptographic puzzles in a data center, they tackle tangible challenges in the real world. For example, imagine a robot roofer. This autonomous machine is capable of constructing a roof for a house—a complex, multi-faceted task that involves structural analysis, material selection, precision execution, and risk management.

In our envisioned system, the “complexity” of a task becomes the basis for creating value. Here, complexity could be defined as a composite measure that includes factors such as:

- Time Required: The number of hours a task takes.
- Difficulty Factor: A rating reflecting the technical challenge or expertise needed (for instance, on a scale where an average task is 1, and more challenging tasks may rate at 1.5 or 2).
- Material Cost Factor: An indicator based on the monetary value of materials used.

- Risk Factor: A coefficient representing the uncertainty or potential hazards involved.

A simple model might define a Complexity Score as follows:

Complexity Score = (Time (hours) × Difficulty Factor × Material Cost Factor × Risk Factor) / Standard Unit

For example, suppose a robot roofer spends 10 hours on a roof that requires a difficulty factor of 1.5, utilizes materials worth \$10,000 (reflected in an appropriate cost factor), and operates under a risk factor of 1.2. If we set a baseline such that a Standard Unit of work yields 100 tokens, the robot's work might yield tokens proportional to its computed complexity score. If that score comes out to 1.5, then the robot would “mine” 150 tokens for successfully completing the roof.

In this new economy, tokens are generated not by abstract computational puzzles but by the robots' productive activities solving real-world problems. These tokens would then be automatically collected into a governmental wallet—an account secured on a decentralized blockchain. The blockchain ensures that all transactions are transparent, immutable, and secure without reliance on any central authority. This is how we “tax” robots working. Once amassed, the tokens are redistributed to every citizen as part of an unconditional basic income (UBI) program.

The potential transformation of income distribution through a blockchain-based crypto token system, as envisioned in our Potentialism model, could fundamentally disrupt the current fiat monetary system. If taxation and income redistribution for as much as 65% of the workforce are conducted using these crypto tokens, the traditional roles of currencies like the Dollar and Euro may be significantly diminished. In such a scenario, citizens would receive their primary income in digital tokens, effectively bypassing conventional banking systems and state-controlled money supply mechanisms. This shift could render fiat currencies obsolete or relegate them to a secondary, perhaps even ceremonial, status.

Swan (2015)<sup>4</sup> highlights that blockchain technology offers a blueprint for a new economy—one characterized by decentralization, transparency, and reduced reliance on centralized monetary authorities. If the blockchain-based system becomes the main channel for income, the impetus for governments and financial institutions to maintain and manage fiat currencies may weaken considerably. With the majority of economic activity anchored in crypto tokens, central banks would lose much of their control over the money supply and interest rates, challenging their traditional roles in regulating inflation and stabilizing economies.

Furthermore, this new system might prompt a re-evaluation of monetary policy and international finance. Fiat currencies currently underpin national economic sovereignty; however, a decentralized token-based UBI could lead to a scenario where cross-border transactions and digital asset management become more prominent than traditional currency exchanges. This could lead to significant volatility in the value of traditional currencies, as their relevance in

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<sup>4</sup> Swan, M. (2015) *Blockchain: Blueprint for a New Economy*. O'Reilly Media

everyday transactions diminishes. As consumers and businesses increasingly operate within the crypto ecosystem, the demand for Dollars and Euros might drop, potentially leading to an implosion or radical reorganization of the existing fiat system.

The implications extend to exchange rates and global economic stability. With crypto tokens serving as the primary income source, the conversion rates between these tokens and fiat currencies would become critical. Fluctuations in token value could exert downward pressure on traditional currencies if investors and consumers begin to favor the new digital assets. Moreover, as governments attempt to adapt their regulatory frameworks to this emerging system, they might face challenges reconciling decentralized control with established fiscal policies.

In essence, the adoption of a blockchain-based taxation and income redistribution system as proposed in the Potentialism model invites us to question the long-held necessity of fiat currencies like the Dollar and the Euro. While such a transition presents significant challenges—including ensuring the stability and scalability of the crypto token system—it also offers a glimpse into a future where economic power is redistributed away from centralized institutions. This paradigm shift would require robust stabilization mechanisms for crypto tokens, careful integration with existing financial infrastructures, and innovative regulatory approaches to manage the potential fallout on traditional monetary systems.

## Potentialism

Max Weber's seminal work, *Economy and Society*<sup>5</sup>, provides a comprehensive framework for understanding how every society is characterized by both an economic system and a social system. According to Weber, while the economic system organizes the production and distribution of resources, the social system shapes the distribution of power through distinct forms of authority and can take various forms. Democracy (rule by the many), oligarchy (rule by the few), or monarchy (rule by one). In theory, anarchy (rule by none) is also a possibility, though it is not currently found in any stable form.

Erik Olin Wright's *Envisioning Real Utopias*<sup>6</sup> offers a comprehensive analysis of the spectrum of economic systems. Wright delineates capitalism, characterized by the private ownership of the means of production, from socialism, which emphasizes public ownership, and communism, where production is collectively managed through central planning. He further discusses alternative models such as corporatism—where large interest groups and the state collaborate to control industries—and mutualism, which promotes cooperative ownership and voluntary associations as the basis for production and exchange.

In this discussion, we focus solely on the economic system. While the social system will undoubtedly face challenges as well, a deeper analysis can be found in the paper "Solon AI: Crafting a Synthocracy."

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<sup>5</sup> Weber, M. (1946) *Economy and Society: An Outline of Interpretive Sociology*. Translated by G. Roth and C. Wittich. Berkeley: University of California Press

<sup>6</sup> Wright, E.O. (2010) *Envisioning Real Utopias*. London: Verso

As we look beyond the economic metrics and employment figures, we arrive at a profound philosophical crossroads. The advent of mass automation forces us to rethink our entire value system. Traditional capitalism is built on the principles of labor and capital, while classical socialism emphasizes state control and redistribution. Yet, neither of these models fully addresses the dramatic shift we are about to witness.

Our proposed system differs fundamentally from both capitalism and socialism in how it creates and redistributes value.

**Capitalism**, as defined by Adam Smith in *The Wealth of Nations* (1776)<sup>7</sup>, is built on the principle that individuals work for wages, and through their self-interest and market competition, produce goods and services. The profits—essentially the surplus generated by human labor—are reinvested or accumulated by capital owners. In capitalism, consumer demand is driven by wage earners who, in turn, fuel further production. Our model, however, replaces human labor with autonomous AI robots. These machines generate surplus value by solving real-world problems (much like Bitcoin miners solving cryptographic puzzles), but they do not consume. As a result, the traditional cycle of wage labor, consumption, and reinvestment breaks down.

**Socialism**, particularly in the Marxian sense as outlined in *Capital* (1867)<sup>8</sup> and *The Communist Manifesto* (1848)<sup>9</sup>, is characterized by collective or state ownership of the means of production, with wealth being redistributed to eliminate exploitation. Marx argued that the surplus value created by workers is expropriated by capitalists, leading to inequality. In a socialist system, the state—or the collective—plans and manages production and distribution to achieve social equity. While our model shares the socialist goal of ending exploitation by ensuring that the surplus value benefits everyone, it departs significantly from traditional socialism. Instead of centralized planning and state control, I propose a decentralized mechanism: autonomous robots generate economic value, which is captured in crypto tokens on a blockchain and then redistributed to all citizens as an unconditional basic income (UBI).

This approach is radical because it decouples income generation from human labor altogether. As Marx might have appreciated, it addresses the central critique of capitalism by ensuring that the surplus value produced by automation is shared broadly rather than being concentrated in the hands of a few. Yet, unlike traditional socialism, which relies on a centralized authority to redistribute wealth, our system uses a transparent, decentralized blockchain mechanism to administer UBI—thus avoiding bureaucratic inefficiencies and the potential for state overreach.

In essence, while capitalism depends on the cycle of labor and consumption, and socialism depends on centralized redistribution to overcome exploitation, our model envisions a society where autonomous machines solve problems and create surplus, and that surplus is then automatically, and equitably, distributed via crypto tokens. This creates a new economic paradigm that neither Marx's socialism nor Smith's capitalism can fully capture.

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<sup>7</sup> Smith, A. (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: W. Strahan and T. Cadell

<sup>8</sup> Marx, K. (1867) *Capital: A Critique of Political Economy*. Hamburg: Otto Meissner Verlag

<sup>9</sup> Marx, K. and Engels, F. (1848) *The Communist Manifesto*. London: Communist League



A new paradigm—Potentialism—is proposed, representing a socioeconomic order that redefines value in terms of the untapped potential of each individual rather than traditional capital or rigid labor structures. In a society where 65% of human labor is replaced by autonomous machines, the focus shifts from mere production to the cultivation of human potential. With more free time and a guaranteed income, individuals can pursue creative, intellectual, and social endeavors that enrich both themselves and their communities.

Under Potentialism, success is no longer measured by wages earned or assets accumulated. Instead, it is gauged by innovation, well-being, and the capacity for personal and communal growth. The surplus generated by machines is no longer hoarded by a dwindling elite but is redistributed through the crypto-token financed UBI, ensuring that every citizen has the resources to explore and realize their full potential. This reimagining of societal priorities could lead to a renaissance in culture, education, and creativity—fostering a society that values human ingenuity and the collective good over traditional economic metrics.

## Limitations and Future Research Directions

While this paper presents a compelling vision for Potentialism, several limitations must be acknowledged. First, our projections regarding workforce displacement and the implementation of a blockchain-based UBI are based on optimistic assumptions about the rapid pace of AI and blockchain technology advancements—assumptions that may not hold uniformly across different regions or economic contexts. Additionally, the integration of decentralized crypto tokens into existing fiscal and monetary frameworks poses significant technical, regulatory, and logistical challenges that warrant further empirical investigation. Future research should focus on robust simulation studies and cross-country comparative analyses to model the economic and social impacts of such a paradigm shift. Moreover, interdisciplinary studies are needed to explore the long-term implications on income inequality, labor market dynamics, and the potential destabilization of traditional fiat currencies. Addressing these gaps will be critical to refining the Potentialism model and ensuring its practical viability.

## Conclusion

The possibility that by 2030, 65% of the workforce could be replaced by autonomous AI robots presents the most dramatic socioeconomic change in human history. For both America and Germany, the implications are profound. For the rest of the developed world, it is as severe as for our examples. On one hand, the loss of employment would drastically reduce consumer spending, potentially leading to significant GDP contractions. On the other, the implementation of an unconditional basic income—funded not by dwindling tax revenues, but by a novel crypto-token model that captures the surplus of automated production—offers a radical solution to sustain the economy.

This vision of a Post-Work Equitable Economy, underpinned by the principles of Potentialism, challenges us to reimagine the very foundations of society. Work, as we have known it, may become obsolete; instead, human potential, creativity, and well-being will become the new

measures of success. In a world where every individual has the freedom to pursue passion projects, lifelong learning, and community engagement, the true wealth of society may be measured not in Dollars or Euros, but in the realization of human potential.

Given the impending transformative changes, it is evident that current economic and social models require significant evolution. The road ahead is uncertain and fraught with challenges, yet it also holds unprecedented opportunities for those willing to embrace a new paradigm—one where the full potential of humanity can finally flourish in a post-work era.

The vision presented herein necessitates a comprehensive re-evaluation, redesign, and reimagination of our collective future in the context of an accelerating technological revolution.

## Literature Summary

Adam Smith (1776)

*The Wealth of Nations*

Contribution: Establishes the foundations of capitalism, emphasizing wage labor, market competition, and the reinvestment of surplus value generated by human labor.

Karl Marx (1848/1867)

*The Communist Manifesto and Capital*

Contribution: Critiques capitalist systems by arguing that surplus value produced by workers is expropriated by capitalists, leading to exploitation and inequality, and outlines a framework for collective ownership.

Frey & Osborne (2017)

Contribution: Utilizes machine learning techniques to estimate that up to 47% of jobs in the U.S. are at high risk of automation, providing empirical support for the potential displacement of human labor by AI systems.

Brynjolfsson & McAfee (2014)

*The Second Machine Age*

Contribution: Argues that AI and robotics are advancing exponentially—propelled by principles such as Moore's Law—thereby accelerating technological disruption far beyond historical precedents.

Swan, M. (2015)

*Blockchain: Blueprint for a New Economy*

Contribution: Presents blockchain technology as a decentralized, transparent, and secure framework that can transform economic structures by reducing reliance on traditional monetary authorities, thereby informing the proposed blockchain-based UBI model.

Erik Olin Wright

*Envisioning Real Utopias*

Contribution: Provides a comprehensive analysis of various economic systems (capitalism, socialism, and alternative models), which helps contextualize the radical redefinition of value proposed under Potentialism.