

The Ethical Perspective of Digital-Technology-Driven Economic Disruption

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Abstract: The digital world has penetrated various corners of space and dimensions in human life. Filling in previously unimaginable gaps. Humans are now more familiar with the presence of the digital world. Suddenly, and sometimes without realizing it, a new culture and behaviour has formed, namely digital culture. Along with the emergence of new habits, new cultures, new worlds, then at least two sides are formed, the good side and the bad side. The digital world offers convenience and new opportunities. Meanwhile, on a small scale we can see humans hiding behind anonymous identities, feel free to do anything in cyberspace. This has led to a new social problem. On a national scale, the digital world requires state apparatus to adapt and prepare policy directions and legal instruments to protect national interests and their citizens. The scope of economic activity cannot be separated from the influence of the presence of the digital world. One of its influences even touched on ethics. Many studies show that companies that apply ethics get a competitive advantage compared to companies that ignore it. When the wave of disruption comes, companies also feel the dynamics and make adaptations in their business activities and operations. Also adapting related to the ethics of the company.

This paper specifically tries to identify problems faced by companies due to disruption in the era of digital transformation. Mainly viewed from an ethical perspective. At the same time, it also offers a study and a view of its impact. The method used is literature study from various sources related to digital disruption, companies' ethics, and socio-cultural behaviour caused by digitization.

The purpose of this paper is to find new study perspectives related to companies, social behaviour, and culture, resulting from disruption in the era of digital transformation, and the ethical side that goes with it. The digital revolution presents businesses with the challenge of leveraging technology for economic gain while navigating complex ethical issues related to human well-being, fairness, and social justice. To address these challenges, companies must adopt responsible innovation, invest in workforce development, establish ethical frameworks, and foster inclusive dialogue. Ensuring digital equity through an inclusive economy is vital, requiring a shift from profit maximization to prioritizing transparency and accountability. The findings of this study are to inspire and provide practical and strategic benefits for companies, what they must do ethically in surfing during a wave of disruption in this era of digital transformation and to increase competitive advantage and maintain sustainability. Future research should focus on adaptive strategies and policy interventions to manage technological disruptions, promoting economic growth without ethical compromises. By embracing ethical leadership and responsibility, businesses can unlock innovation, competitive advantage, and sustainability while contributing to societal good.

Keywords: digital technology, economic disruption, ethics, competitive advantage, sustainability

1. Introduction

This century is marked by many events that brought the world to the greatest disruption and affected all aspects of humanity. The challenge of changing the world due to technological disruption which has also eroded economic, social and cultural constructs leaves many questions on ethical issues.

The Fourth Industrial Revolution, in which the digital revolution took a very important mark on, propelled by digital technologies like artificial intelligence, automation, and big data, is reshaping our world at an unprecedented pace (Kusuma, 2021; Kusuma et al., 2021; Alcacer, 2016, Tekic and Korotev, 2019). While these advancements offer tremendous potential for economic growth and societal progress, they also unleash a powerful wave of disruption, raising profound ethical questions that demand careful consideration (World Economic Forum, 2016).

Today, individuals and societies are extensively integrated with the digital world, developing a dependency that has seamlessly ushered in a new era of digital culture (Javaid, et al., 2024). This culture affects every strata of human existence, from individuals to corporations and nations, each grappling with the profound disruptions characterizing this digital transformation era (Deep, 2023; Adhianto et al., 2018, Lange et al., 2018). The pace of adaptation varies widely across contexts, with some embracing the changes effortlessly while others struggle to cope with the relentless advance of digital innovation (Kusuma, 2021; Kusuma et al., 2021; Ellström et al., 2021).

As societies adopt new habits and form new cultures spurred by digital transformation, the dual nature of technological advancement becomes apparent, manifesting both beneficial and detrimental effects (Carayannis and Morawska-Jancelewicz, 2022; Economic Commission for Latin America and the Caribbean (ECLAC), 2021; Gromova and Everin, 2021). On one hand, the digital world offers unprecedented conveniences and opportunities, from enhanced communication to innovative business models. On the other hand, it poses challenges such as privacy concerns and social issues arising from anonymity in cyberspace. At the national level, the digital revolution demands adaptive governance and legal frameworks to safeguard citizens and uphold ethical standards. Within the economic sphere, digital influences infiltrate every aspect, particularly emphasizing the importance of ethics (Paska, 2021; Dhirani et al., 2023; Gromova and Everin, 2021). Numerous studies illustrate that companies prioritizing ethics gain a competitive edge, highlighting the necessity for businesses to adapt their ethical standards to thrive amid disruption (Thanh and Quang, 2019; Roša (Rosha) and Lobanova, 2022; Abdelkarim, 2023).

This paper argues that navigating the ethical complexities of digital-technology-driven economic disruption is not merely an option, but a necessity for ensuring a just and equitable future. It will first examine the multifaceted nature of this disruption, focusing on key ethical challenges such as algorithmic bias, job displacement, data privacy, and the potential exacerbation of existing inequalities. We will explore how these challenges are intertwined and cannot be addressed in isolation.

Through a comprehensive literature review, we examine the impact of digital disruption on corporate ethics and identify strategic approaches that can enhance competitive advantage and sustainability, and seek to contribute new perspectives on the intersection of ethics, social behavior, and culture in this evolving digital era.

Thus, the formulation of the problem in this paper is as follows: "In literatures assessing the workforce impacted by digital technology-driven economic disruption, what ethical considerations and frameworks have been identified compared to those in traditional employment sectors regarding job security and workers' rights?" Furthermore, it may expand the findings on how businesses navigate the evolving landscape of corporate ethics to mitigate the potential harms of digital-technology-driven economic disruption while harnessing its transformative potential for both competitive advantage and societal good.

This includes promoting responsible innovation in the development and deployment of new technologies, investing in robust workforce development and reskilling programs, and establishing clear regulatory frameworks that prioritize human well-being and social justice; thus inspire and provide practical and strategic benefits for companies, what they must do ethically in surfing during a wave of disruption in this era of digital transformation and to increase competitive advantage and maintain sustainability.

Ultimately, this paper calls for a proactive and collaborative approach, engaging stakeholders across sectors – technologists, policymakers, business leaders, ethicists, and the public – in a dialogue aimed at shaping a future where the benefits of digital transformation are shared broadly and ethically.

2. Literature Review

The digital revolution, characterized by advancements in artificial intelligence, automation, and big data, is fundamentally reshaping the economic landscape. While these technologies offer unprecedented opportunities for growth and efficiency, they also raise profound ethical concerns regarding job displacement, privacy, algorithmic bias, and the distribution of wealth. This literature review examines the ethical implications of digital-technology-driven economic disruption, exploring the challenges and potential solutions for ensuring a just and equitable transition in the face of rapid technological advancement.

Technological Disruptions and Their Economic Impacts: A Double-Edged Sword

Throughout history, technological advancements have acted as catalysts for profound economic and societal transformations. Likewise, it is without surprise that technological disruptions have become a pivotal force in reshaping modern economies, influencing the structure of industries, the nature of work, and economic growth trajectories. From the steam engine to the internet, each wave of innovation has brought about new industries, redefined labor markets, and reshaped the global economic order. This section examines the literature on technological disruptions, focusing on their economic impacts and setting the stage for a deeper exploration of the ethical considerations arising from the current digital revolution.

The current digital revolution, characterized by advancements in artificial intelligence, automation, robotics, and big data, is widely recognized as a technological disruption of unprecedented scale and scope (Murtza and Murtza, 2023; Ganiyu et al., 2021, Kusuma, 2021). It clearly sounds that technological advancements, particularly in artificial intelligence, automation, and big data, is fundamentally reshaping the global economic landscape. While these technologies hold immense potential for productivity gains and societal progress, they also present significant challenges, creating a double-edged sword effect that demands careful analysis.

Unlike previous industrial revolutions, the digital revolution is unfolding at an exponential pace, impacting virtually every sector of the economy and permeating all aspects of modern life. One of the seminal works in this field is by Brynjolfsson and McAfee (2014) explores how digital technologies is accelerating at an exponential rate, including artificial intelligence and robotics, have expedited productivity but on the other hand also exacerbated income inequality. They argue that while technology boosts economic growth and opens new market opportunities, it simultaneously displaces traditional jobs and polarizes labor markets. technological progress, leading to unprecedented gains in productivity and efficiency. They suggest that this new era has the potential to create vast wealth and improve living standards, but only if societies adapt to the changing nature of work and invest in education and skills development.

Similarly, it seems that the automation and the smart machine issues were broadly studied, Autor (2015) emphasizes the impact of automation on job categories and wage disparities. Autor's analysis highlights the resilience of jobs requiring non-routine cognitive skills, suggesting a need for workforce adaptation through education and skill development. Autor (2015) reinforces this analysis by emphasizing the resilience of jobs that require non-routine cognitive skills. Autor warns that while some sectors experience growth, others face stark reductions, necessitating strategic investments in education and workforce development to adapt to automation trends.

Addressing the ethical implications of these disruptions requires a nuanced understanding of their economic impacts. As Frey and Osborne (2017) point out, the future of employment hinges on the ability of workers to adapt to rapidly changing skill demands. Investing in education and training programs that equip individuals with the skills needed for the digital economy is crucial for ensuring that the benefits of technological progress are shared broadly.

However, this optimistic outlook is tempered by concerns about job displacement and widening inequality. Acemoglu and Restrepo (2018) find that automation technologies, while boosting aggregate productivity, can lead to significant job losses in certain sectors, particularly those involving routine tasks. This displacement effect, they argue, can exacerbate income inequality and create social unrest if not addressed through appropriate policy interventions.

The dynamics of the sharing economy, Sundararajan (2016) further illustrates the disruptive economic impacts of technology. Sundararajan argues that platforms like Uber and Airbnb exemplify a shift from traditional employment to gig-based work, presenting both economic opportunities and challenges in terms of job security and regulatory oversight. On the other words, Uber and Airbnb are revolutionizing traditional employment models. The rise of the sharing economy provides another lens through which to examine technological disruption. He argues that these platforms democratize access to economic opportunities but also erode traditional labor protections, creating a grey area in terms of worker rights and benefits. This shift towards gig-based work challenges existing regulatory frameworks and demands novel policy responses to ensure fair labor standards in this evolving economic landscape.

Furthermore, the benefits of technological progress are not evenly distributed. The OECD (2019) warns that the digital divide, the gap between those who have access to digital technologies and those who do not, is widening, both within and between countries. This disparity in access and skills risks exacerbating existing inequalities and creating a two-tiered society, where those who are digitally connected reap the rewards of innovation, while others are left behind.

In the realm of finance, the advent of digital currencies and blockchain technology has been profoundly transformative. Narayanan et al. (2016) explore how blockchain can enhance

transactional efficiency and security, while also posing regulatory challenges. Their work underscores the potential for blockchain to disrupt traditional financial institutions and create new economic paradigms. However, they also caution about the regulatory and security challenges that arise with such innovations, suggesting the need for robust legal frameworks to govern digital currencies and protect users.

Moreover, the implications of data-driven decision-making and big data analytics are thoroughly examined by Mayer-Schönberger and Cukier (2013). They propose that big data analytics can lead to more informed economic decisions and innovations, though it also raises concerns regarding data privacy and ethical use of information, necessitating a balanced approach to harnessing big data's capabilities while safeguarding individual rights.

Overall, the literature indicates that while technological disruptions drive innovation and economic growth, they also require careful management and policy interventions to address accompanying challenges such as employment shifts, regulatory needs, and ethical considerations. Technological disruptions offer significant opportunities for economic growth and societal advancement, yet they also present profound challenges that require careful consideration. Navigating this complex landscape demands a proactive and ethical approach, one that prioritizes human well-being, promotes inclusive growth, and ensures that the benefits of innovation are shared equitably.

The Need for an Ethical Lens

Understanding the complex and often contradictory economic impacts of digital technologies is crucial for informing ethical considerations, as a purely economic lens proves insufficient. As we navigate this era of rapid technological change, it is essential to move beyond economic metrics and consider the broader societal implications of these transformations. This includes addressing issues of fairness, justice, and the distribution of benefits and burdens, ensuring that the digital revolution leads to a more equitable and prosperous future for all. It raises profound ethical questions that demand rigorous examination.

Scholars argue that the unprecedented scale and scope of digital disruption necessitate a fundamental shift in our ethical paradigms. Floridi (2018) posits that we are entering an "onlife" world, where the digital and physical realms are increasingly intertwined, blurring traditional ethical boundaries. This interconnectedness, while presenting opportunities for progress, also amplifies the potential for harm, demanding a reevaluation of our responsibilities towards ourselves, each other, and the environment.

Foremost in the ethical discourse are concerns related to privacy, data security, and surveillance. Zuboff (2019) critically assesses how major tech companies capitalize on personal data, arguing that this commodification of privacy poses significant ethical dilemmas. Zuboff highlights the asymmetry of power between consumers and corporations, urging for comprehensive policy reforms to protect individual rights in the digital age. Similarly, Pasquale (2015) outlines how opaque algorithms and data-driven decision-making can undermine transparency and accountability, necessitating ethical scrutiny to ensure fairness and equity.

One prominent concern revolves around algorithmic bias. O'Neil cautions against the dangers of algorithms, as she called the weapons of math destruction—algorithms that perpetuate and amplify existing social biases, leading to discriminatory outcomes in areas such

as criminal justice, lending, and employment. She argues for greater transparency and accountability in algorithmic decision-making to mitigate these harms.

The economic disruptions induced by digital technologies also raise questions about corporate social responsibility (CSR). According to Freeman and Ginena (2015), businesses must redefine their roles beyond profit-maximization to address broader social and ethical impacts. They argue that as companies innovate and disrupt markets, they also bear the responsibility for ethical stewardship, ensuring that technological progress benefits society at large and mitigates adverse effects such as job displacement and inequality.

Artificial Intelligence (AI) epitomizes the dual-edged nature of technological advancements, presenting both opportunities and ethical challenges. This is clearly stated in the study of Bostrom and Yudkowsky (2014), bias in algorithmic decision-making and the ethical implications of autonomous systems are among the potential risks associated with AI. They underscore the importance of embedding ethical considerations into the development and deployment of AI systems to prevent unintended socioeconomic consequences. Accordingly, regulation and policy are crucial levers for ethically navigating digital disruptions, as accentuated in Floridi et al. (2018), that propose a framework that emphasizes the need for policies that balance innovation with ethical responsibility. They advocate for proactive regulatory approaches that anticipate ethical issues and ensure that technological advancements contribute positively to societal welfare.

Exacerbating Inequalities: The Digital Divide and Unequal Access

The integration of digital technologies into the economy has brought about unprecedented opportunities for growth and innovation. However, this disruption also raises critical ethical concerns, particularly regarding inequality and access. This literature review synthesizes the existing body of research to highlight the imperative for an ethical perspective in understanding and addressing the implications of digital-technology-driven economic disruption.

While digital technologies hold immense potential for progress, their benefits are not universally shared. A growing body of research highlights how these technologies can exacerbate existing inequalities and create new forms of digital exclusion, raising critical ethical concerns. This section examines the literature on the digital divide and its implications for social and economic justice in the age of digital disruption.

Digital inequality refers to the disparities in knowledge and ability to use digital and information technology based on different demographics, socioeconomic backgrounds, and information technology experience and competencies (Beacon VC. (n.d.), 2023). The problem is not merely one of access; disparities also exist among people who have access to digital technology. The digital gap is caused by barriers in three areas: availability, affordability, and adoption.

The digital divide encompasses various dimensions, including access to technology, digital literacy, and the ability to effectively utilize digital tools for economic and social participation. Van Dijk identifies multiple layers of this divide, ranging from basic access to infrastructure and devices to more nuanced disparities in skills, usage, and the quality of online experiences. He argues that these disparities contribute to a "digital underclass" who are increasingly marginalized in a digitally driven society.

The COVID-19 pandemic starkly exposed the consequences of this digital divide. As societies shifted online for work, education, and social interaction, those without adequate access or skills faced significant disadvantages. This exacerbated existing inequalities in education, healthcare, and economic opportunity, disproportionately impacting marginalized

communities. It clearly figures out a significant lag between rich and poor countries in their access to digital technology, a gap seen before with respect to railways, the electronics industry, and pharmaceuticals during the COVID-19 pandemic (Sapir, 2023). Even within rich countries, geographic inequality persists, with better access to digital services often found in large cities compared to rural areas

Moreover, scholars warn that the digital divide is not merely a technological problem but a reflection of broader societal inequalities. For example, Robinson et al. (2015) argue that historical and systemic factors, such as race, gender, and socioeconomic status, intersect with digital inequalities, creating compounded disadvantages for certain groups. They emphasize the need for intersectional approaches that address the root causes of these disparities.

The proper use of digital services implies a constant increase in knowledge and education, not only in its general sense but also in higher education. The relationship between the level of education and the provision of digital services is fundamental for these services to be used efficiently. This highlights a hidden inequality in access to high-quality education

Addressing the ethical imperative of bridging the digital divide requires multifaceted solutions. Expanding access to affordable internet and digital devices is crucial, but it is not sufficient. Equally important is investing in digital literacy programs that empower individuals with the skills and knowledge to navigate the digital world effectively. Furthermore, policymakers and technology developers must prioritize inclusivity and accessibility in the design and implementation of digital technologies and services.

In conclusion, the ethical implications of digital disruption cannot be divorced from the issue of inequality. Failing to address the digital divide risks exacerbating existing social and economic disparities, creating a two-tiered society where the benefits of technological progress are enjoyed by a privileged few. A just and equitable digital future requires a concerted effort to ensure that everyone has the opportunity to participate fully in the digital economy and society.

3. Method

The literature review plays a vital role by providing an overview, explanation, and thoughtful critique of previous research. It highlights challenges or gaps in current studies and identifies new research questions that can be explored with the available data (Boell and Cecez-Kecmanovic, 2015), offering a comprehensive understanding of the current state of knowledge. In this study, the methodology focuses on the ethical implications of economic disruption driven by digital technology, employing a comprehensive literature review approach. By defining the scope and objectives, key themes such as digital transformation and business ethics are explored through a synthesis of relevant academic sources.

In addition, a total of 35 articles were gathered from Google Scholar, all published within the last five years. Out of these, 27 were selected due to their relevance to the research theme. These 27 articles were categorized into nine aspects, analyzed using a framework and ethical consideration approach. The literature review synthesizes common themes and debates across the selected studies, offering critical insights into how companies can navigate the ethical challenges posed by digitalization. The study ultimately provides strategic guidance for maintaining ethical standards and sustainability amidst technological transformation, reinforcing the theoretical framework established in prior research.

4. Result and Discussion

In the rapidly evolving landscape of employment, the concept of job security and workers' rights is being continually redefined, as traditional frameworks struggle to keep pace with new work models. Digital-technology-driven economic disruption catalyzes these changes, altering the fabric of employment practices and introducing novel challenges that demand fresh ethical perspectives. This is particularly evident in sectors characterized by gig and remote work environments, where the classification of workers as independent contractors often circumvents the provisions of traditional employment such as job security and benefits. Ethical considerations in these sectors are paramount, focusing on fair compensation, job stability, and access to benefits like healthcare and retirement plans that are commonly available in conventional employment settings are often missing in gig work. Furthermore, as workplaces embrace autonomy and flexibility, they introduce complex ethical challenges related to employer control over work schedules and task assignments, which can result in income volatility and insecurity.

The rise of algorithmic management further complicates this landscape, prompting concerns about transparency, bias, and fairness in the assessment and compensation of workers. Additionally, issues of safety and well-being gain prominence, especially for remote workers who may lack traditional safety nets. Concerns over data privacy and surveillance are acute in digital work environments, necessitating ethical frameworks to protect personal information. Moreover, the disparity in collective bargaining rights between traditional sectors and gig or tech sectors highlights the need for robust frameworks to ensure workers' rights to organize and self-advocate.

Lastly, the push for diversity and inclusion across all types of workplaces highlights ethical needs to ensure equitable opportunities and combat discrimination, while the imperative for a living wage underscores the need for income that sustains all workers amidst varying regional costs of living. As these elements converge, they underscore an urgent need for adaptability in ethical frameworks to effectively address the challenges of modern work environments and guarantee fair treatment and protection for all workers.

The incorporation of digital technologies into the economic sphere has given rise to a multifaceted landscape of ethical quandaries and possibilities. A holistic ethical perspective is crucial for navigating these intricacies and guaranteeing the equitable distribution of the benefits stemming from digital disruption. By synthesizing the extant scholarly literature and utilizing rigorous research methodologies, we can gain deeper insights into the ethical ramifications of digital technology-driven economic upheaval and devise strategies to mitigate its detrimental consequences.

In the context of job security and workers' rights, various ethical considerations and frameworks have been identified that differ from those in traditional employment sectors. The relentless pace of digital disruption presents businesses with unprecedented opportunities and challenges. While the potential for economic growth and innovation is undeniable, the ethical implications of these technological advancements are equally profound. This section, drawing upon a comprehensive literature review, examines the impact of digital disruption on corporate ethics and identifies strategic approaches that can enhance both competitive advantage and sustainability.

Table 1. Ethical Considerations of Job Security and Workers' Rights

Aspect	Framework	Ethical Consideration
Gig Economy and Precarious Work	Many modern employment sectors, such as gig platforms, often categorize workers as independent contractors, which can circumvent traditional job security and benefits. (Novianto et al., 2023).	Ethical considerations focus on fair wages, job security, and the provision of benefits such as healthcare and retirement plans which are typically standard in traditional employment but often lacking in gig work (Dong et al., 2024). Job Displacement and the Future of Work: The automation of tasks previously performed by humans raises concerns about widespread job displacement and the need for workforce re-skilling initiatives. Ethical considerations include ensuring a fair transition for displaced workers, addressing potential increases in income inequality, and re-evaluating societal safety nets (Bolden and O'Regan, 2023).
Workplace Autonomy and Flexibility	While flexible work arrangements offer personal freedom, they pose ethical questions about the extent of control employers have over workers' schedules and tasks, potentially leading to unpredictable income and job insecurity (Pande, 2024).	Autonomy and Control: Digital technologies often blur the boundaries between work and personal life, potentially eroding individual autonomy (Eurofound, 2022). The integration of AI and IoT technologies in the workplace can lead to increased monitoring and control, which may infringe upon employees' rights to privacy and self-determination.
Algorithmic Management	In many modern sectors, workers are managed by algorithms that assign tasks, evaluate performance, and sometimes determine pay rates. This raises concerns about transparency, bias, and fairness in worker evaluation and employment decisions (Law, 2018).	Algorithmic Bias and Fairness: Algorithms, while seemingly objective, can perpetuate and even amplify existing societal biases. This raises concerns about fairness and discrimination in various domains, including hiring, lending, and criminal justice. Ethical frameworks are needed to ensure algorithmic transparency, accountability, and fairness (Min, 2023; Nah, et al., 2024).
Safety and Wellbeing	There is a need for frameworks ensuring physical and mental well-being, especially in remote or isolated work environments where traditional safety nets	Exacerbating Existing Inequalities: Digital technologies have the potential to exacerbate existing economic and social inequalities. Access to technology, digital literacy, and the benefits

	may not be present (Polson et al., 2022).	derived from automation may be unevenly distributed, further marginalizing vulnerable populations (Sawert and Tuppat, 2020; Heeks, 2022).
Data Privacy and Surveillance	As many modern jobs rely on digital tools, concerns about data privacy and surveillance are paramount. Ethical frameworks are needed to safeguard workers' personal information and ensure it is not used to unfairly penalize them. Privacy and Data Protection: The widespread use of digital technologies has led to an exponential increase in data collection and processing. This has raised significant concerns about privacy and data protection (Marsh et al., 2022). Data Privacy and Security: The proliferation of data-gathering technologies empowers companies to collect vast amounts of personal information. Balancing the economic benefits of data utilization with the ethical imperative to protect individual privacy and ensure responsible data governance is paramount. (Fenwick and Vermeulen, 2018)	Transparency and Accountability: The rapid pace of technological advancements often outpaces regulatory frameworks, leading to a lack of transparency and accountability in digital transactions. This can result in unethical practices such as digital ethicswashing, where companies superficially adopt ethical principles to improve their public image (Kahrass et al., 2021). Privacy and Data Security: The increasing reliance on data-driven technologies necessitates a careful examination of data privacy and security. Ethical questions arise regarding data ownership, consent, transparency in data collection and usage, and the potential for misuse or breaches (Dhirani et al., 2023; Mirghaderi et al., 2023) The proliferation of data-gathering technologies empowers companies to collect and analyze vast amounts of information about their customers. While this data can drive innovation and personalize user experiences, it also raises concerns about privacy, consent, and potential misuse. Companies must balance the economic benefits of data utilization with the ethical imperative to protect individual privacy and ensure responsible data governance (Pina et al., 2024). The ethical implications of data misuse, surveillance, and the potential for exploitation underscore the need for robust privacy regulations and ethical standards. Prioritize Data Ethics and Privacy: Implementing robust data governance frameworks, obtaining informed consent, and ensuring data security are

		essential for maintaining customer trust (Shenkoya, 2022).
Collective Bargaining and Representation	Traditional sectors often have established unions and collective bargaining rights. In contrast, many gig and tech sectors face challenges in organizing workers, with ethical considerations focusing on workers' rights to organize and advocate for themselves (Hickson, 2023).	Impact on Work Conditions: The integration of automation and AI can significantly alter working conditions, potentially leading to job displacement and changes in job roles. Ethical considerations must be given to the impact on workers' well-being and the need for retraining programs (Eurofound, 2022).
Diverse and Inclusive Workplaces	There is a growing emphasis on diversity and inclusion across all sectors. Ethical considerations include creating equitable opportunities and addressing discrimination and harassment, which may manifest differently outside traditional office settings (Müller et al., 2022).	Inequality and Access: The digital economy exacerbates existing inequalities by creating new barriers to access and participation. The digital divide, where some individuals lack the necessary skills or resources to fully engage with digital technologies, raises ethical concerns about fairness and inclusivity (Husin et al., 2022).
Living Wage	Ensuring that all workers, regardless of employment type, earn a living wage is a critical ethical issue, requiring frameworks that account for cost of living variations across different regions (Håkansta et al., 2024).	Invest in Workforce Development: Supporting employees through re-skilling and up-skilling programs can help them adapt to the changing demands of the digital economy. The digital transformation also impacts labor practices and worker well-being. Automation potentially increasing efficiency but raises concerns about job displacement and the need for workforce reskilling. Companies have an ethical responsibility to mitigate the negative social impacts of automation by investing in employee training, exploring alternative work arrangements, and fostering a culture of lifelong learning (Jeff, 2024; Raharjo, 2024).
Environmental Sustainability	The production, use, and disposal of digital technologies have significant environmental impacts. Companies must adopt sustainable practices throughout their digital operations, from responsible sourcing to energy-efficient data centers (Luna, 2023).	Embrace Sustainable Practices: Companies should minimize their environmental foot-print by adopting sustainable practices throughout their digital operations (Jackson and Hodgkinson, 2022; Truong, 2022).

Source: Author, processed data

Beyond these specific concerns, there is a growing recognition that ethical considerations must be integrated into all stages of technological development. The concept of "responsible innovation" emphasizes the need for anticipatory and participatory approaches that engage stakeholders, anticipate potential ethical challenges, and steer technological development towards socially beneficial outcomes.

The ethical dimensions of digital disruption are complex and multifaceted, demanding ongoing dialogue and critical reflection. As we navigate this uncharted territory, prioritizing ethical considerations alongside economic imperatives is not merely an option, but a fundamental necessity for ensuring a just, equitable, and sustainable future.

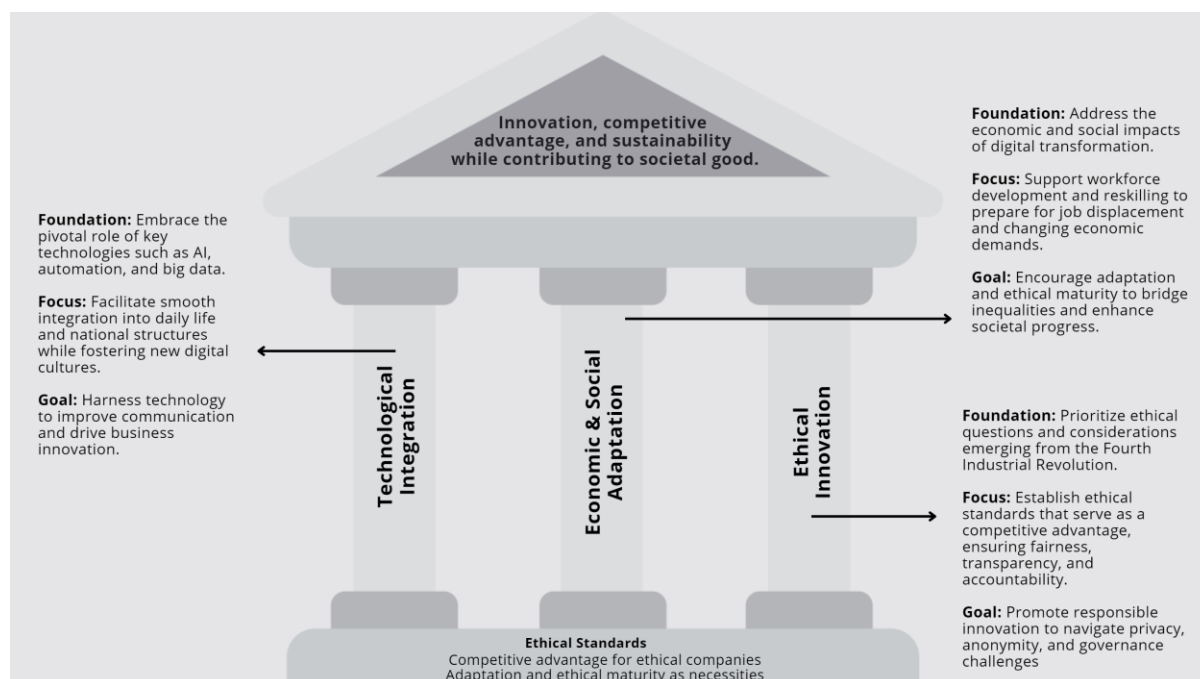


Figure 1: Modern Business Strategies within the Framework of Ethical Standards
Sources: Author, Processed Data.

Potential Solutions and Ethical Frameworks

In the current era of rapid digital transformation, identifying and implementing potential solutions to address the ethical challenges posed by emerging technologies is paramount. Responsible innovation and ethical design play critical roles in this landscape, emphasizing the need to integrate ethical considerations into the creation and deployment of digital technologies. This involves promoting transparency, accountability, and fairness in algorithmic decision-making, while prioritizing human well-being and social impact.

Alongside this, Trenerry et al. (2021) emphasize workforce development and reskilling are vital, as investing in education and training programs allows workers to acquire the skills crucial for thriving in the digital economy. By fostering lifelong learning and adaptability, individuals can meet the evolving demands of the labor market.

Governments and regulatory frameworks are equally pivotal, as they establish ethical guidelines to govern the use of digital technologies. Such frameworks address critical issues such as data privacy, algorithmic bias, and responsible innovation. Moreover, inclusive stakeholder engagement and public discourse are essential for navigating the ethical

complexities associated with digital disruption. By facilitating open dialogue among technologists, policymakers, ethicists, and the public, society can collaboratively address these challenges.

The rise of artificial intelligence in business operations further accentuates these concerns, as algorithms—despite being perceived as neutral—can convey and amplify biases inherent in their training data (Nah, et al., 2024). This has the potential to lead to discriminatory outcomes, especially in sensitive areas like hiring, lending, and customer profiling (Min, 2023). Hence, companies must proactively tackle algorithmic bias, ensuring that AI-driven decision-making processes remain transparent, fair, and accountable. Together, these strategies form a comprehensive approach to developing ethical frameworks that support sustainable technological progress while safeguarding societal values.

5. Conclusions

In conclusion, the digital revolution challenges businesses to not only harness technology for economic gain but also to navigate an intricate ethical landscape that prioritizes human well-being, fairness, and social justice. Addressing the ethical implications of digital-technology-driven economic disruption demands a proactive, collaborative approach. By embracing responsible innovation, investing in workforce development, establishing robust ethical frameworks, and fostering inclusive dialogue, companies can leverage the transformative potential of digital technologies while mitigating potential harms. It is crucial to address digital inequality by ensuring equitable access and adoption through an inclusive digital economy framework. This requires a shift in corporate mindset, moving beyond profit maximization to prioritize ethical considerations, transparency, and accountability. By doing so, businesses can harness digital transformation to build a more just and equitable future.

Future research should continue exploring adaptive strategies and policy interventions to manage the complex impacts of technological disruptions, ensuring that economic growth does not come at the cost of ethical oversights. By redefining corporate ethics for the 21st century, embracing ethical leadership, and fostering a culture of responsibility, companies can navigate digital complexities to create economic value while contributing to societal good. This comprehensive approach not only mitigates risks but also unlocks opportunities for innovation, competitive advantage, and sustainability. As technologies evolve, anticipating and integrating ethical frameworks is essential, calling for continuous reflection and a commitment to responsibility throughout the digital transformation journey.

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