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Regulations and Ethics in the Era of Digital Transformation: Humanizing Technology for Community Welfare

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ABSTRACT :

Digital technology has now become an integral part of our lives. The advancement of digital technology has had a significant impact on various aspects of life, including enhancing the well-being of society. With all the benefits it can offer, the use of digital technology to enhance societal well-being becomes imperative. However, it is important to remember that the use of digital technology must be done wisely and sustainably, taking into account its impact on the environment and society. The purpose of writing this article is to understand Regulations and Ethics in the Era of Digital Transformation: Humanizing Technology for Community Welfare. The research method used is qualitative, namely a type of research that aims to analyze social life from the perspective or interpretation of individuals (informants) in an academic context. Several consequences of the existence and development of information and communication technology include: Firstly, creating an imbalance akin to colonialism in the flow of information. Ethics is a concern for humans who have the freedom to choose. It revolves around individual choices. Through methods such as digital application processes, remote service models, and innovative financial inclusion strategies, digital welfare initiatives aim to ensure everyone benefits from social and economic well-being. With the increasing interaction of humans with Information and Communication Technology over time, the importance of ethics as a foundational regulation in the use of Information and Communication Technology becomes increasingly urgent to be understood by the general public.

Keywords : *Regulations, Ethics, Digital Transformation*

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INTRODUCTION

The study of Society and Technological Change continues to be a crucial topic in exploring the relationship between individuals in society and the evolving landscape of technology.(Volti, R., & Croissant, J. (2024)[1] This section focuses on how digital technologies have changed things over time. We can break down these advancements into five major waves, following the historical timeline and insights from our analysis framework. The first wave began in the 1970s, when basic computer technology was first used to automate simple tasks. This section looks at how digital technologies and digital businesses are impacting people. We'll explore how people in various roles, from citizens to employees, are affected. These categories are based on research and how they mirror stages of business development. The most noticeable change is in everyday tasks, both personal and professional. Compared to the past, how we work and live has been significantly altered by the digital age (Veldhoven, 2022).

Digital technology has now become an integral part of our lives. The advancement of digital technology has had a significant impact on various aspects of life, including enhancing the well-being of society. With all the benefits it can offer, the use of digital technology to enhance societal well-being becomes imperative. However, it is important to remember that the use of digital technology must be done wisely and sustainably, taking into account its impact on the environment and society. Only through a comprehensive and close collaboration approach can digital technology effectively create overall societal well-being (Rohman & Darmaningrum, 2024).

Information and Communication Technology (ICT) encompasses two main aspects: information technology involving processing, utilization, manipulation, and management of information, and communication technology involving the use of tools for processing and transferring data between devices. Therefore, ICT is an inseparable entity that encompasses all activities related to processing, manipulation, management, and transfer of information across media.

In an era of rapidly advancing technology, the challenges and opportunities faced by marginalized communities are becoming increasingly significant. These communities, groups that are socially, economically, or politically marginalized, often have limited access to resources and opportunities. While technology can serve as a tool to reduce disparities and improve quality of life, it can also exacerbate social and economic divisions. One of the main challenges is the tension between freedom of expression and the need to monitor digital content that can undermine morals and ethics. On one hand, technology enables individuals to freely express their opinions and thoughts. However, on the other hand, there is content such as pornography, violence, and radicalism that violate laws and moral values, thus requiring strict monitoring and decisive legal actions (Rahmawati, 2023). How technology has autonomously become dominant and is attempting to replace traditional values in every society, diminishing and suppressing these values to ultimately create a singular global culture where all non-technological differences and diversity are considered merely superficial (Ellul, J. (2021)[2] Therefore, this research aims to understand how technology impacts marginalized communities, address these challenges, and harness technological opportunities for their well-being. The study seeks to explore the importance of understanding the impact of technology on society and finding ethical ways based on regulations to face the technological era (Awailiyah et al., 2024). The purpose of writing this article is to understand Regulations and Ethics in the Era of Digital Transformation: Humanizing Technology for Community Welfare.

Digital transformation and digitization rely on artificial intelligence (AI), which imbues software with intelligence and operates on data—more data yields better results. Algorithms analyze data to identify patterns and characteristics. AI encompasses applications where machines exhibit human-like capabilities such as learning, reasoning, and problem-solving. Effectively developing, deploying, and maintaining these data-driven technologies, as discussed in Section [reference to specific section or context], and in the case studies, demands clear direction to assume associated digital responsibilities (Weber-Lewerenz, 2021).

Digital transformation has profoundly impacted Indonesian society across multiple dimensions. Various sectors including social, economic, educational, cultural, and bureaucratic have experienced significant changes due to advancements in digital technology. Socially, technology enables individuals to connect and communicate remotely, primarily through social media and video calls, altering traditional modes of interaction and broadening the scope of social relationships. Economically, digital transformation has created new avenues for people to engage in online commerce, advertise products via social media, and even establish influencer roles through digital platforms. This expansion of digital platforms enhances market access and provides entrepreneurs with opportunities to augment their earnings. Moreover, digital transformation facilitates access to learning and skill development in fields like e-commerce and online marketing, contributing to the growth of the digital economy (Nainggolan, 2022). Specific technological changes, such as AI, machine learning, and large-scale automa- tion, that are impacting New Jersey's major industry clusters (e.g., health care, logistics, food, financial services, clean energy, and advanced manufacturing), and the resultant skills needed for a competitive workforce (Swartz et al., 2022).

[1] Volti, R., & Croissant, J. (2024). Society and technological change. Waveland Press.
[2] Ellul, J. (2021). The technological society. Vintage.

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METHODOLOGY

Qualitative research is a type of study aimed at analyzing social life from the perspective or interpretation of individuals (informants) within an academic context. In other words, this research seeks to understand how individuals observe, interpret, or depict their social world, which is reflected in their social interactions. Therefore, the essence of qualitative research lies in the effort to comprehend individuals' perspectives on their social reality.
This research utilizes information gathered in the form of text or images, without emphasizing numerical data The purpose of this study is to systematically, factually, and accurately describe the facts of the researched object. The research aims to depict the current reality without elaborating on the relationships between variables (Fahriyani et al., 2020).

DISCUSSION

1. The impact of technological advancement

Several consequences of the existence and development of information and communication technology include: Firstly, creating an imbalance akin to colonialism in the flow of information. Global information disparities lead to a situation where developed nations tend to be the primary senders of information, while developing countries largely receive this information. This phenomenon can be seen as a form of modern colonialism, where influence is predominantly exerted through the flow of information and communication rather than physical territorial conquest. Secondly, fostering dependence on technology. The ease provided by information and communication technology has made society accustomed to the availability of all their needs. Many people prefer technology over traditional interpersonal communication for reasons of efficiency. Society is increasingly finding it difficult to detach from this technological dependence, potentially altering long-term cultural values and norms. Thirdly, bringing about changes in value systems and norms. The advancement of information and communication technology has brought both positive and negative changes to society. On one hand, technology is used for good, professionalism, and integrity, which can enhance social life. On the other hand, technology misuse can lead to destructive impacts such as increased access to inappropriate content like pornography and online gambling, as well as the negative influence of mass media that easily shapes public views and understanding.

We've been observing a shift from an analog to a digital society, marked by new technologies, business models, and organizational and communication methods. This transition brings significant changes to how we conceive business models and structure jobs. Artificial intelligence (AI) is poised to be the next major technological revolution, following in the footsteps of the Internet and mobile technology. AI involves machines simulating human intelligence, encompassing cognitive functions like perception, reasoning, learning, adaptive evolution, problem-solving, interaction with the environment, and even creativity (Reier Forradellas & Garay Gallastegui, 2021).

2. Appropriate regulations and ethics to address challenges in the era of technology

Ethics is a concern for humans who have the freedom to choose. It revolves around individual choices. Ethical issues have existed long before the advent of information technology and have been continuous concerns in free societies everywhere. However, information technology has heightened the focus on ethics, putting pressure on existing social regulations and rendering many laws obsolete or inadequate. Four technological trends are responsible for these ethical pressures. The definition of ethics according to various experts is as follows:

a) Drs. O.P. Simorangkir defines ethics as human behavior guided by standards and values deemed good.
b) Drs. Sidi Gajalba describes ethics as a theory of human behavior judged in terms of good and bad, as far as can be determined by reason.
c) Drs. H. Burhanudin Salam defines ethics as a branch of philosophy that discusses the values and moral norms that govern human behavior in life.

According to the Kamus Besar Bahasa Indonesia (Official Indonesian Dictionary), society refers to a group of people bound by a shared culture. Social ethics encompass rules of conduct, norms, and values of goodness adopted within a society to govern human behavior within it. Social

ethics evolve alongside customs, habits, values, and patterns of behavior relevant to the cultural situations and realities in society. (Ricki ferdinan Gregorius, Madallo efendi, Palamba reinaldi, 2019)[3].

There are many examples of ethical practices in the community environment, one of which is in the dissemination of information and the use of Information and Communication Technology (ICT), such as social media. Individuals who adhere to ethics and follow regulations generally experience positive benefits. For example, someone who is cautious in spreading unverified information (hoaxes) on social media can avoid legal issues. Conversely, those who easily spread fake news through comments on social media, whether written or spoken, are at higher risk of legal involvement (Rusi et al., 2022).

Technology requires the adoption of ethics because its users come from diverse backgrounds, primarily communicate through text, and facilitate the transformation of interactions from the real world to the virtual world. Ethics are necessary to ensure users understand and respect their rights and obligations, particularly considering Indonesia's societal diversity. Ethics also serve as a crucial prerequisite in a social community to foster harmony and unity, especially in the digital context that enables self-representation, interaction, and collaboration (Arif Setiawan et al., 2022).

3. Efforts to use technology to improve the welfare of society.

The Fourth Industrial Revolution marks a turning point. Unlike previous advancements, technology in this era isn't just a tool, it's shaping the very foundations of our societies and how we progress. This tight link between technology and societal development underscores the crucial role of studying how digital technologies impact the UN's Sustainable Development Goals (SDGs). However, there's debate amongst academics about the true extent of this influence. Some researchers are concerned about the environmental and social costs often associated with economic growth driven by digital technologies, and view them as a potential hindrance to achieving the SDGs. It's undeniable though, that digital technologies have been a major engine of economic growth in recent years.

In developed countries, the primary social costs of digital economic growth are linked to educating the workforce through digital mass training, which heightens social tension and competition in the job market. Ecological costs arise from increased energy consumption due to automation boosting production and energy usage. Nevertheless, these costs are effectively mitigated by adopting advanced energy-intensive digital technologies, smart grids, and shifting to alternative energy resources. Some experts assert that the development of digital technology has a significantly positive impact on sustainable development in society. Digital technologies enable companies to enhance their production capabilities, fully meeting public demand for goods and services. Digital finance promotes transparency and economic oversight, aiding in the reduction of shadow economies. Accessible digital training fosters the popularization of lifelong learning. Additionally, the digital management of value chains facilitates comprehensive monitoring, ensuring product quality and timely delivery (Popkova et al., 2022).

By transitioning processes like application submissions, eligibility evaluations, and benefit distributions to digital formats, these initiatives alleviate administrative workloads, decrease bureaucratic inefficiencies, and improve the responsiveness of welfare systems. Additionally, digital platforms

[3] Ricki ferdinan Gregorius, Madallo efendi, Palamba reinaldi, josua rigel. (2019). Etika Dalam Kehidupan Bermasyarakat. Jurnal Etika Kehidupan, 3–4

allow for real-time data collection and analysis, supporting evidence-based decision-making and resource allocation. However, issues regarding data privacy, digital literacy, and access to technology highlight the need for inclusive and rights-based implementation strategies. In a world growing ever more interconnected through technological advancements, the convergence of technology and social welfare is key to tackling significant societal issues and promoting inclusive growth. Digital welfare initiatives, which utilize digital technologies to provide social services and enhance the well-being of individuals and communities, have become essential instruments for fostering positive social change.

By leveraging technology, these initiatives strive to break down access barriers, improve service delivery, and boost economic empowerment for vulnerable communities. Through methods such as digital application processes, remote service models, and innovative financial inclusion strategies, digital welfare initiatives aim to ensure everyone benefits from social and economic well-being. Nonetheless, achieving this vision comes with its own set of challenges and complexities. This section examines the diverse effects of technology on social welfare, focusing on how digital innovations have transformed service delivery, improved accessibility, and encouraged economic empowerment. Digital technologies have made social welfare services more efficient by reducing administrative burdens, cutting down on paperwork, and streamlining various processes.

For example, digitizing application procedures for social assistance programs has simplified the process, allowing individuals to apply for benefits online from their homes. This not only reduces wait times and bureaucratic obstacles but also enhances access for those with limited mobility or living in remote areas. Technology has broadened access to social welfare services, especially for marginalized and underserved populations. Mobile apps and online platforms have made it easier to obtain information about available services, eligibility requirements, and application steps. Additionally, digital tools like telemedicine and remote counseling have broken down geographical barriers, enabling individuals in rural or isolated communities to access healthcare and mental health support remotely.

By utilizing technology, governments and organizations can reach individuals who were previously underserved or excluded from traditional welfare systems. Data analytics and artificial intelligence in social welfare have facilitated evidence-based decision-making and resource allocation. By analyzing large datasets, policymakers can identify trends, evaluate the effectiveness of interventions, and allocate resources more efficiently. Predictive analytics can also pinpoint individuals at risk of poverty or other social challenges, allowing for early intervention and targeted support. Furthermore, real-time data collection and monitoring aid in program evaluation and accountability, ensuring that welfare initiatives achieve measurable impact. Technology has been crucial in advancing financial inclusion and economic empowerment for marginalized populations. Digital financial services, such as mobile banking and e-wallets, provide individuals with access to formal financial systems, enabling them to save, invest, and obtain credit.

Additionally, initiatives like digital skills training and online entrepreneurship programs provide individuals with the tools and knowledge necessary to engage in the digital economy, helping to reduce income inequality and build economic resilience. Blockchain technology offers potential for increasing transparency, accountability, and trust in social welfare systems. By recording transactions on a decentralized ledger, blockchain can help prevent fraud, reduce corruption, and ensure that benefits reach their intended recipients. Furthermore, blockchain-based identity systems can offer secure and verifiable digital identities, making it easier to access services and reducing identity theft and fraud. In summary, technology has sparked innovative solutions that are revolutionizing social welfare systems globally. By streamlining service delivery, improving accessibility, promoting data-

driven decision-making, and enhancing economic empowerment, technology is transforming the approach of governments and organizations to social welfare, leading to greater impact and inclusivity. However, to unlock the full potential of technology in social welfare, it is crucial to tackle issues related to digital literacy, privacy, and equity. This ensures that technology acts as a means to promote social justice and enhance well-being.

Digital solutions are making social services more accessible, overcoming traditional barriers of distance, mobility, and affordability. Mobile apps, online platforms, and telecommunication services allow individuals, especially those in remote or underserved areas, to access information, support, and resources related to healthcare, education, employment, and social assistance. By harnessing technology, governments and organizations can reach marginalized groups, including people with disabilities, the elderly, and those from low-income backgrounds, ensuring inclusive social progress. The vast amount of digital data generated through various online activities and interactions presents unprecedented opportunities for informed decision-making in social welfare. Data analytics, machine learning, and artificial intelligence enable policymakers and practitioners to analyze trends, anticipate needs, and optimize resource allocation.

By utilizing insights from big data, governments can create targeted interventions, evaluate program effectiveness, and identify areas for improvement, thereby increasing the impact and efficiency of social welfare initiatives. Digital financial services and fintech innovations are expanding access to financial resources, allowing individuals to manage their finances more effectively. Mobile banking, digital payment platforms, and peer-to-peer lending services offer unbanked and underbanked populations secure, affordable, and convenient financial tools. Additionally, programs like microfinance and digital skills training help individuals build assets, generate income, and engage in the formal economy, thereby reducing poverty, encouraging entrepreneurship, and enhancing economic resilience. Technology is transforming healthcare delivery and promoting overall well-being through telemedicine, remote monitoring, and digital health solutions.

Telehealth platforms allow patients to consult healthcare professionals remotely, obtain medical advice, and receive diagnoses and prescriptions, especially in underserved areas lacking sufficient healthcare facilities. Wearable devices, mobile apps, and online platforms support self-care, track health metrics, and manage wellness, empowering people to actively pursue better health outcomes. Additionally, digital mental health services offer counseling, therapy, and support networks, addressing the rising mental health challenges intensified by societal pressures and isolation. Digital innovations are reshaping education by enhancing access to interactive and personalized knowledge. Online learning platforms, open educational resources, and e-learning tools enable individuals to acquire new skills, pursue higher education, and engage in continuous learning from any location and at any time. Furthermore, digital literacy initiatives and technology-integrated classrooms equip students with essential digital competencies, preparing them for the demands of the modern era and closing the digital gap.

Technology is enabling individuals to access education widely and embrace ongoing learning, fostering personal growth and societal advancement. It promotes accessibility, data-driven decision-making, financial inclusion, healthcare advancements, and lifelong learning, driving significant positive changes and empowering both individuals and communities in the digital age. Yet, maximizing the advantages of digital solutions necessitates focused actions to enhance digital skills, safeguard privacy, promote equity, and uphold ethical standards. This ensures that technology remains a force for inclusive and sustainable development.

Digital inclusion initiatives seek to narrow the digital gap by offering underserved communities affordable internet access, devices, and training in digital literacy. Collaborations among governments, nonprofits, and private sectors support projects like community Wi-Fi, computer refurbishment, and mobile internet subsidies. These efforts aim to empower individuals in low-income, rural, and marginalized areas to overcome digital barriers. By expanding infrastructure and enhancing digital skills, these initiatives pave the way for using technology to achieve broader social goals. Technology holds the promise to transform education through accessible, interactive, and personalized learning resources. Educational technology (EdTech) encompasses diverse tools such as online platforms, apps, digital books, and interactive content, enabling learners of various ages and backgrounds to pursue self-directed learning and gain new skills outside traditional classrooms (Dubois & Laurent, 2024).

CONCLUSION

With the increasing interaction of humans with Information and Communication Technology over time, the importance of ethics as a foundational regulation in the use of Information and Communication Technology becomes increasingly urgent to be understood by the general public. This is due to the fact that in everyday use of Information and Communication Technology, we often encounter unethical behaviors, reflected in actions of some members of society who utilize advancements in Information and Communication Technology without considering ethical values.

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